

**Arizona State University**

**General Catalog 2002–2003**







ARIZONA STATE  
UNIVERSITY

General Catalog  
2002+2003

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correct in content and  
policy"

*Louis Allen Perry*  
Registrar

Arizona State University





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# **Arizona State University**

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**2002–2003 General Catalog**

All colleges, schools, divisions, and departments establish certain academic requirements that must be met before a degree is granted. Advisors, deans, department chairs, and deans are available to help the student understand these requirements, but the student's responsibility for fulfilling them. At the end of a student's course of study, if requirements for graduation have not been satisfied, the degree is not granted. For this reason, it is important for all students to acquaint themselves with all regulations, to be informed throughout their college careers, and to be responsible for completing requirements. Courses, programs, and requirements described in the catalog may be suspended, deleted, restricted, supplemented, or changed in any other manner at any time, at the sole discretion of the university and the Arizona Board of Regents. The catalog does not establish a contractual relationship but summarizes the total requirements the student must currently meet before qualifying for a faculty recommendation to the Arizona Board of Regents to award a degree.

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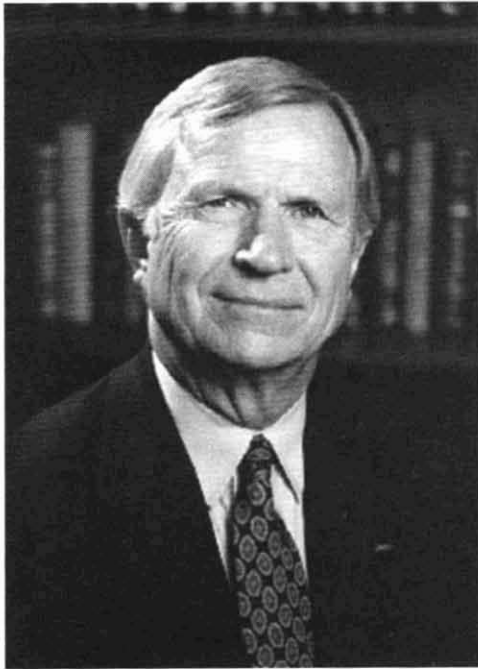
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President Lattie F. Coor

Tim Trumble photo

Dear ASU Students and Prospective Students:

It is my personal pleasure to introduce the Arizona State University 2002–2003 *General Catalog*. It is intended to put a great deal of important information at your fingertips and serve as a guide through your university experience.

The catalog compiles a rather imposing list of programs, courses, requirements, and services. We hope it is organized in a manner that makes it easy to find the information most applicable to you and your course of studies.

While the catalog will answer many of your questions, nothing will substitute for the guidance your advisor can provide. I strongly encourage you to work closely with an advisor to plan your academic program.

On behalf of Arizona State University, I wish you a challenging and fulfilling experience as you work to achieve your goals.

Sincerely,

Lattie F. Coor  
President

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<sup>1</sup> See the *ASU West Catalog*.  
<sup>2</sup> See the *Graduate Catalog*.

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# Academic Organization

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Organized under ASU Main, ASU East, ASU West, and ASU Extended Campus are colleges, schools, departments, and other administrative units whose faculty offer courses.

## **ASU Main**

### **Barrett Honors College**

### **College of Architecture and Environmental Design**

School of Architecture  
School of Design  
School of Planning and Landscape Architecture

### **College of Business**

Department of Economics  
Department of Finance  
Department of Management  
Department of Marketing  
Department of Supply Chain Management  
School of Accountancy and Information Management  
School of Health Administration and Policy

### **College of Education**

Division of Curriculum and Instruction  
Division of Educational Leadership and Policy Studies  
Division of Psychology in Education

### **College of Engineering and Applied Sciences**

Del E. Webb School of Construction

### **School of Engineering**

Department of Bioengineering  
Department of Chemical and Materials Engineering  
Department of Civil and Environmental Engineering  
Department of Computer Science and Engineering  
Department of Electrical Engineering  
Department of Industrial Engineering  
Department of Mechanical and Aerospace Engineering

### **College of Extended Education**

### **College of Law**

### **College of Liberal Arts and Sciences**

African American Studies Program  
Department of Aerospace Studies  
Department of Anthropology  
Department of Biology  
Department of Chemistry and Biochemistry  
Department of Chicana and Chicano Studies  
Department of English  
Department of Exercise Science and Physical Education  
Department of Family and Human Development

Department of Geography  
Department of Geological Sciences  
Department of History  
Department of Languages and Literatures  
Department of Mathematics and Statistics  
Department of Microbiology  
Department of Military Science  
Department of Philosophy  
Department of Physics and Astronomy  
Department of Plant Biology  
Department of Political Science  
Department of Psychology  
Department of Religious Studies  
Department of Sociology  
Department of Speech and Hearing Science  
Interdisciplinary Humanities Program  
Women's Studies Program

### **College of Nursing**

### **College of Public Programs**

American Indian Studies Program  
Asian Pacific American Studies Program  
Department of Recreation Management and Tourism  
Hugh Downs School of Human Communication  
School of Justice Studies  
School of Public Affairs  
School of Social Work  
Walter Cronkite School of Journalism and Mass Communication

### **Division of Undergraduate Academic Services**

Academic Success at the University  
Bachelor of Interdisciplinary Studies  
Writing Across the Curriculum

### **Graduate College**

Gerontology  
Science and Engineering of Materials  
Transportation Systems

### **Herberger College of Fine Arts**

Department of Dance  
Department of Theatre  
School of Art  
School of Music

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## **ASU East**

### **College of Extended Education**

### **College of Technology and Applied Sciences**

Department of Aeronautical Management Technology  
Department of Electronics and Computer Engineering Technology

Department of Information and Management Technology

Department of Manufacturing and Aeronautical Engineering Technology

### **East College**

Department of Exercise and Wellness

Department of Nutrition

Faculty of Applied Psychology

Faculty of Business Administration

Faculty of Education

Faculty of Multimedia Writing and Technical Communication

### **Morrison School of Agribusiness and Resource Management**

---

## **ASU West**

### **College of Arts and Sciences**

Department of American Studies

Department of Integrative Studies

Department of Interdisciplinary Arts and Performance

Department of Life Sciences

Department of Social and Behavioral Sciences

Ethnic Studies Program

Interdisciplinary Studies Graduate Program

Religious Studies Program

Women's Studies Program

### **College of Education**

Department of Elementary Education

Department of Graduate Studies and Professional Development

Department of Secondary Education

Department of Special Education

### **College of Extended Education**

### **College of Human Services**

Department of Administration of Justice

Department of Communication Studies

Department of Recreation and Tourism Management

Department of Social Work

Gerontology Program

Nursing (ASU Main Program)

## **Division of Collaborative Programs**

Applied Science Program

Barrett Honors College

Learning Enhancement Center

Research Consulting Center

University-College Center

West Campus Advising Center

## **School of Management**

Department of Accounting and Information Systems Management

Department of Economics, Finance, Marketing and Quantitative Business Analysis

Department of Management

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## **ASU Extended Campus**

### **College of Extended Education**

Academic and Professional Programs

American English and Culture Program

Distance Learning and Technology

Extended Campus Programs

Independent Learning



Whitewashing the "A" on A Mountain is a Welcome Week tradition.

Tim Trumble photo

# ASU Baccalaureate Degrees

Baccalaureate degrees, majors, and concentrations offered by ASU Main, ASU East and ASU West and through ASU Extended Campus are shown in the "ASU Baccalaureate Degrees" table below, organized by the name of the major. The table points to the primary page where more information can be found. The table shows only officially approved concentrations; other informal areas of study may also be available. Where indicated, the approved area of study is called an "emphasis" or some other name in place of "concentration." For graduate degrees, see the "ASU Graduate Degrees" table, page 529.

ASU offers these baccalaureate degrees, abbreviated in the table below and elsewhere in the catalog.

Bachelor of Applied Science (B.A.S.)  
 Bachelor of Arts (B.A.)  
 Bachelor of Arts in Education (B.A.E.)  
 Bachelor of Fine Arts (B.F.A.)  
 Bachelor of Interdisciplinary Studies (B.I.S.)  
 Bachelor of Music (B.M.)  
 Bachelor of Science (B.S.)  
 Bachelor of Science in Design (B.S.D.)  
 Bachelor of Science in Engineering (B.S.E.)  
 Bachelor of Science in Landscape Architecture (B.S.L.A.)  
 Bachelor of Science in Nursing (B.S.N.)  
 Bachelor of Science in Planning (B.S.P.)  
 Bachelor of Social Work (B.S.W.)

## ASU Baccalaureate Degrees

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Aeronautical Management Technology <sup>1</sup>	B.S.	Air transportation management, professional flight	East	659
Aerospace Engineering <sup>1</sup>	B.S.E.		Main	265
African American Studies	B.A.	Humanities/arts, politics and society, social and behavioral sciences	Main	343
Agribusiness	B.S.	Agribusiness finance, e-commerce, food and agribusiness marketing, food science general agribusiness, golf and facilities management, international agribusiness, management of agribusiness, preveterinary medicine, professional golf management, resource management	East	628
American Indian Studies	B.S.		Main	488
American Studies	B.A.		West	690
Anthropology	B.A.		Main	346
Applied Psychology	B.S.		East	642
Applied Science	B.A.S.	Aviation maintenance management technology	East	661
		Aviation management technology	East	661
		Computer systems administration	East	667
		Consumer products technology	East	633
		Digital media management	East	672
		Digital publishing	East	672
		Emergency management	East	672
		Fire service management	East	672
		Food retailing	East	634
		Instrumentation	East	667
		Manufacturing technology and management	East	679
		Microcomputer systems	East	667

<sup>1</sup> This major requires more than 120 semester hours to complete.

<sup>2</sup> Applications for this program are not being accepted at this time.

<sup>3</sup> This program is administered by ASU Main.

## ASU Baccalaureate Degrees (continued)

Major	Degree	Concentration	Campus	Page
Applied Science (continued)	B.A.S.	Multimedia writing and technical communication	East	650
		Municipal operations management	East	672
		Operations management	East	672
		Resource team specialist	East	634
		Semiconductor technology	East	667
		Software technology applications	East	667
		Technical graphics	East	672
		(All concentrations listed for ASU East)	Extended	704
		All minors available at ASU West, individualized concentration	West	690
			Extended	704
Architectural Studies	B.S.D.	—	Main	127
Art	B.A.	Art history, digital art, museum studies, studio art	Main	279
	B.F.A.	Art education, ceramics, drawing, fibers, intermedia, metals, painting, photography, printmaking, sculpture	Main	281
Asian Languages (Chinese/Japanese)	B.A.	—	Main	399
Biochemistry	B.S.	—	Main	360
Bioengineering <sup>1</sup>	B.S.E.	—	Main	223
Biology	B.S.	Biology and society	Main	352
Business Administration	B.S.	—	East	643
Chemical Engineering <sup>1</sup>	B.S.E.	—	Main	228
Chemistry	B.A., B.S.	—	Main	359
Chicana and Chicano Studies	B.A.	Humanities/cultural sciences, social sciences/policy	Main	364
Civil Engineering <sup>1</sup>	B.S.E.	Construction engineering, environmental engineering	Main	239
Clinical Laboratory Sciences	B.S.	—	Main	427
Communication	B.A., B.S.	—	Main	491
			Extended	705
Communication Studies	B.A., B.S.	—	West	690
Computational Mathematical Sciences	B.S.	—	Main	419
Computer Engineering Technology <sup>1</sup>	B.S.	Computer hardware technology, embedded systems technology, software technology	East	665
Computer Information Systems	B.S.	—	Main	164
Computer Science <sup>1</sup>	B.S.	Software engineering	Main	246
Computer Systems Engineering <sup>1</sup>	B.S.E.	—	Main	247
Conservation Biology	B.S.	—	Main	353
Construction <sup>1</sup>	B.S.	General building construction, heavy construction, residential construction, specialty construction	Main	214
Dance	B.F.A.	Choreography, dance education, dance studies, performance	Main	296
Design Science <sup>2</sup>	B.S.D.	—	Main	135
Early Childhood Education	B.A.E.	—	Main	194
Economics	B.A.	—	Main	367
	B.S.	—	Main	168
				367
Electrical Engineering <sup>1</sup>	B.S.E.	—	Main	253
Electronics Engineering Technology <sup>1</sup>	B.S.	Electronic systems, microelectronics, telecommunications	East	664

<sup>1</sup> This major requires more than 120 semester hours to complete.<sup>2</sup> Applications for this program are not being accepted at this time.<sup>3</sup> This program is administered by ASU Main.

## ASU BACCALAUREATE DEGREES

### ASU Baccalaureate Degrees (continued)

Major	Degree	Concentration	Campus	Page
Elementary Education	B.A.E.	Multilingual/multicultural education	Main	194
		—	Extended	703
		Bilingual education/English as a second language, early childhood education	East	644
		—	West	690
Engineering Interdisciplinary Studies <sup>2</sup>	B.S.	—	Main	209
Engineering Special Studies <sup>1</sup> English	B.S.E.	Premedical engineering	Main	273
	B.A.	Linguistics, literature	Main	368
		—	Extended	705
		—	West	690
Environmental Resources	B.S.	Ecology, watershed ecology, wildlife habitat management	East	632
Exercise and Wellness	B.S.	—	East	646
Exercise Science/Physical Education	B.S.	Exercise science, physical education	Main	375
Family and Human Development	B.S.	Family studies/child development	Main	378
Finance	B.S.	—	Main	171
French	B.A.	—	Main	400
Geography	B.A., B.S.	Meteorology-climatology, urban studies	Main	381
Geological Sciences	B.S.	—	Main	387
German	B.A.	—	Main	400
Global Business	B.S.	Financial management, human resources management, information systems management, international studies, marketing	West	690
Graphic Design	B.S.D.	—	Main	135
History	B.A.	—	Main	390
			West	690
			Extended	704
			Main	145
Housing and Urban Development	B.S.D.	—	Extended	704
Humanities	B.A.	—	Main	397
Industrial Design	B.S.D.	—	Main	135
Industrial Engineering <sup>1</sup>	B.S.E.	—	Main	259
Industrial Technology	B.S.	Environmental technology management, graphic information technology, industrial technology management	East	670
Integrated Studies	B.A., B.S.	—	Main	336
Integrative Studies	B.A.	All minors available at ASU West, individualized concentration	West	690
			Extended	704
Interdisciplinary Arts and Performance	B.A.	Media, music, performance studies, theater/performance, visual art	West	690
Interdisciplinary Studies	B.I.S.	See the “B.I.S. Concentrations” table, page 116.	Main	114
			East	641
			Extended	703
Interior Design <sup>1</sup>	B.S.D.	—	Main	135
Italian	B.A.	—	Main	401
Journalism and Mass Communication	B.A.	Journalism, media analysis and criticism, media management, media production, strategic media and public relations	Main	496
Justice Studies	B.S.	—	Main	500
Landscape Architecture	B.S.L.A.	—	Main	145

<sup>1</sup> This major requires more than 120 semester hours to complete.

<sup>2</sup> Applications for this program are not being accepted at this time.

<sup>3</sup> This program is administered by ASU Main.

## ASU Baccalaureate Degrees (continued)

Major	Degree	Concentration	Campus	Page
Life Sciences	B.S.	—	West	690
Management	B.S.	—	Main	176
Manufacturing Engineering Technology <sup>1</sup>	B.S.	Manufacturing engineering technology, mechanical engineering technology	East	677
Marketing	B.S.	—	Main	180
Materials Science and Engineering <sup>1</sup>	B.S.E.	—	Main	231
Mathematics	B.A.	—	Main	417
	B.S.	Statistics	Main	418
Mechanical Engineering <sup>1</sup>	B.S.E.	—	Main	267
Microbiology	B.S.	—	Main	426
Molecular Biosciences/ Biotechnology	B.S.	—	Main	432
Multimedia Writing and Technical Communication	B.S.	—	East	649
Music	B.A.	—	Main	302
Music Education <sup>1</sup>	B.M.	Choral-general, instrumental, string	Main	302
Music Therapy <sup>1</sup>	B.M.	—	Main	304
Nursing	B.S.N.	—	Main	475
			West <sup>3</sup>	690
Nutrition	B.S.	Dietetics, food and nutrition management, human nutrition	East	651
Performance	B.M.	Guitar, jazz, keyboard, music theatre, orchestral instrument, piano accompanying, voice	Main	304
Philosophy	B.A.	—	Main	433
Physics	B.S.	—	Main	436
Plant Biology	B.S.	Environmental science and ecology, plant biochemistry and molecular biology, urban horticulture	Main	443
Political Science	B.A.	—	Main	448
			West	690
			Extended	704
	B.S.	Public policy advocacy and lobbying, public policy analysis	Main	448
			Extended	704
			West	690
Psychology	B.A., B.S.	—	Main	455
			West	690
			Extended	704
Real Estate	B.S.	—	Main	182
Recreation	B.S.	Recreation management, tourism	Main	506
Recreation and Tourism Management	B.S.	—	West	690
Religious Studies	B.A.	—	Main	459
			Extended	705
Russian	B.A.	—	Main	401
Secondary Education	B.A.E.	Academic specializations: biological sciences, business, chemistry, Chicana and Chicano studies, economics, English, family and human development, <sup>2</sup> French, geography, German, history, mathematics, physical education, physics, political science, social studies, Spanish	Main	194
		Academic specializations: biological sciences, English, history, mathematics, social studies	West	690
Selected Studies in Education <sup>2</sup>	B.A.E.	—	Main	191

<sup>1</sup> This major requires more than 120 semester hours to complete.<sup>2</sup> Applications for this program are not being accepted at this time.<sup>3</sup> This program is administered by ASU Main.



## ASU BACCALAUREATE DEGREES

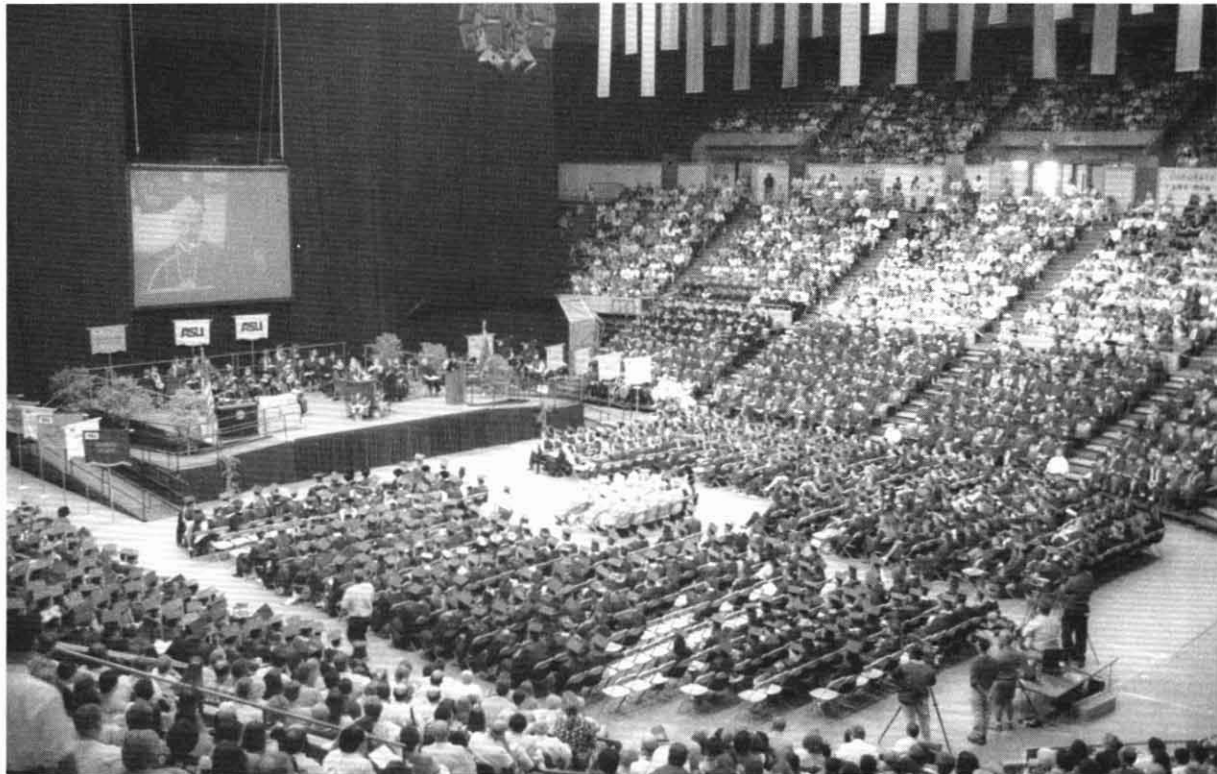
### ASU Baccalaureate Degrees (continued)

Major	Degree	Concentration	Campus	Page
Social and Behavioral Sciences	B.A., B.S.	—	West	690
Social Work	B.S.W.	—	Main	510
			West	690
			Extended	704
Sociology	B.A.	—	Main	463
			West	690
			Extended	704
	B.S.	—	West	690
Spanish	B.A.	—	Main	401
			West	690
Special Education	B.A.E.	—	Main	194
			West	690
Speech and Hearing Science	B.S.	—	Main	467
Supply Chain Management	B.S.	—	Main	182
Theatre	B.A.	—	Main	317
Theory and Composition	B.M.	Composition, theory	Main	307
Urban Planning	B.S.P.	—	Main	145
Women's Studies	B.A.	—	Main	471
			West	690
	B.S.	—	West	690

<sup>1</sup> This major requires more than 120 semester hours to complete.

<sup>2</sup> Applications for this program are not being accepted at this time.

<sup>3</sup> This program is administered by ASU Main.



Graduation exercises in the Wells Fargo Arena

Tim Trumble photo



# University Calendar

## April 2002

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

## May 2002

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

## June 2002

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

## July 2002

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

## August 2002

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

## September 2002

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

## 2002

## Summer Sessions

Check the 2002 *Summer Sessions Bulletin* for details and to confirm these dates.

Mon., Feb. 4– Wed., May 29	Registration and drop add for first five week session and eight week session
Mon., Feb. 4– Tues., July 2	Registration and drop add for second five week session
Tues., Apr. 30	Final tuition payment deadline for all summer sessions (For students who register on or after the deadline, fees are due daily.)
Mon., May 27	Memorial Day Holiday
Tues., May 28	Instruction begins for first five week session and eight week session
Tues., June 4	Unrestricted course and complete withdrawal deadline for first five week session
Tues., June 4	Unrestricted course and complete withdrawal deadline for eight week session
Fri., June 14	Restricted course withdrawal deadline for first five week session and eight week session
Fri., June 21	Restricted complete withdrawal deadline for first five week session
Fri., June 28	First five week session ends
Mon., July 1	Instruction begins for second five week session
Thurs., July 4	Cases are excused for Independence Day
Fri., July 5	August graduation filing deadline must be met to have name appear in commencement program
Mon., July 8	Unrestricted course and complete withdrawal deadline for second five week session
Fri., July 12	Restricted complete withdrawal deadline for eight week session
Fri., July 19	Eight week session ends
Fri., July 19	Restricted course withdrawal deadline for second five week session
Fri., July 19	Doctoral participation form due to reserve seat at commencement
Fri., July 26	Restricted complete withdrawal deadline for second five week session
Fri., Aug. 2	Second five week session ends
Fri., Aug. 2	Commencement

## 2002

## Fall Semester

Check the fall 2002 *Schedule of Classes* for details and to confirm these dates.

Thurs., Mar. 28	Preregistration
Fri., Apr. 5	
Mon., Apr. 22	Drop add
Sun., Sept. 1	
Wed., Apr. 24– Sun., Sept. 1	Registration

# UNIVERSITY CALENDAR

## September 2002

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

## October 2002

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

## November 2002

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

## December 2002

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

## January 2003

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

## February 2003

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

Tues., Aug. 6

Tues., Aug. 20—  
Thurs., Aug. 22

Thurs., Aug. 22

Thurs., Aug. 22  
Sun., Aug. 25

Mon., Aug. 26

Mon., Sept. 2

Fri., Sept. 20

Mon., Sept. 30

Mon., Oct. 14—  
Fri., Oct. 18

Tues., Oct. 15

Fri., Nov. 1

Mon., Nov. 11

Thurs., Nov. 28

Fri., Nov. 29

Wed., Dec. 4

Tues., Dec. 10

Wed., Dec. 11

Thurs., Dec. 12

Sat., Dec. 14;

Mon., Dec. 16—

Wed., Dec. 18

Thurs., Dec. 19

Fri., Dec. 13

Sat., Dec. 21

Mon., Dec. 30

## 2003

Check the spring 2003 *Schedule of Classes* for details and to confirm these dates

Mon., Oct. 28

Tues., Nov. 5, 2002

Mon., Nov. 18, 2002

Sun., Jan. 26, 2003

Wed., Nov. 20, 2002

Sun., Jan. 26, 2003

Tues., Dec. 17, 2002

Wed., Jan. 1, 2003

Fri., Jan. 7

Wed., Jan. 15

Fri., Jan. 17

Mon., Jan. 20

Final tuition payment deadline for fall 2002

(For students who register on or after the deadline, fees are due daily.)

Residence halls open. Check-in date varies by community last name. Refer to the Residential Life schedule.)

New Faculty and Academic Professional Orientation and Reception  
ASU Welcome Week 2002

Instruction begins

Classes are excused for Labor Day

Unrestricted withdrawal deadline

Winter Session (College of Extended Education [CEE]) registration begins

Semester midpoint

December graduation filing deadline must be met to have name appear in commencement program

Restricted course withdrawal deadline

Classes are excused for Veterans Day

Classes are excused for Thanksgiving recess

Restricted complete withdrawal deadline

Instruction ends

Reading day

Final examinations

Commencement (4 P.M.)

Some residence halls close for semester break

Midyear recess begins

Winter Session (CEE) instruction begins

## Spring Semester

Preregistration

Drop add

Registration

Final tuition payment deadline for spring 2003  
(For students who register on or after the deadline, fees are due daily.)

Winter Session classes are excused for New Year's Day

Orientation for new students

Residence halls open

Winter Session (CEE) instruction ends

Classes are excused for Martin Luther King Jr. Day

**March 2003**

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

**April 2003**

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

**May 2003**

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

**June 2003**

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

**July 2003**

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

**August 2003**

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

Tues., Jan. 21

Fri., Feb. 21

Sun., Mar. 16–

Sun., Mar. 23

Mon., Mar. 31

Fri., Apr. 4

Wed., Apr. 30

Tues., May 6

Wed., May 7

Thurs., May 8

Sat., May 10,

Mon., May 12

Wed., May 14

Thurs., May 15

Fri., May 16

**2003**Check the 2003 *Summer Sessions Bulletin* for details and to confirm these dates

Mon., Feb. 3

Tues., June 3

Mon., Feb. 3

Tues., July 8

Tues., Apr. 9

Mon., May 26

Mon., June 2

Mon., June 9

Fri., June 20

Fri., June 27

Tues., July 1

Thurs., July 3

Fri., July 4

Mon., July 7

Mon., July 14

Fri., July 15

Fri., July 25

Fri., July 25

Fri., Aug. 1

Fri., Aug. 8

Fri., Aug. 8

Instruction begins

Unrestricted withdrawal deadline

Classes are excused for spring recess, semester midpoint

May graduation filing deadline (must be met to have name appear in commencement program)

Restricted course withdrawal deadline

Restricted complete withdrawal deadline

Instruction ends

Reading day

Final examinations

Commencement

Residence halls close

**Summer Sessions**

Registration and drop add for first five week session

and eight week session

Registration and drop add for second five week session

Final tuition payment deadline for all summer sessions  
(For students who register on or after the deadline,  
fees are due daily.)

Memorial Day Holiday

Instruction begins for first five week session and eight-week session

Unrestricted course and complete withdrawal deadline for first five  
week session and eight week sessionRestricted course withdrawal deadline for first five week session and  
eight week session

Restricted complete withdrawal deadline for first five week session

August graduation filing deadline (must be met to have name appear  
in commencement program)

First five week session ends

Classes are excused for Independence Day

Instruction begins for second five week session

Unrestricted course and complete withdrawal deadline for second  
five week session

Restricted complete withdrawal deadline for eight week session

Eight week session ends

Restricted course withdrawal deadline for second five week session

Restricted complete withdrawal deadline for second five week  
session

Second five week session ends

Commencement

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# Frequently Asked Questions

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**How do I apply to ASU Main?** Complete an application and have all required transcripts and test scores sent directly to Undergraduate Admissions. See "Undergraduate Admission," page 58. For more information, call 480 965 7788.

**How do I apply to ASU East?** Complete an application and have all required transcripts and test scores sent directly to Undergraduate Admissions. See "Undergraduate Admission," page 58. For more information, call 480/727 3278.

**How do I apply to ASU West?** Contact the Admissions and Records Office at ASU West. See "Admission and Advising," page 689. For more information, call 602 543 8203.

**What is the ASU Extended Campus?** The ASU Extended Campus offers courses and degrees evenings and weekends, by television, the Internet, on and off campus sites, and through Independent Learning. See "ASU Extended Campus," page 24, and "ASU Extended Campus," page 703, or call 480 965 9696 for information and a course catalog.

**What if I am a transfer student?** Upon admission, note the number of semester hours on your Certificate of Admission. When registering, consult your department advisor to determine how transfer credits fit into the curriculum. See "Academic Advising," page 69. Have you met the First Year Composition requirement? (See "First Year Composition Requirement," page 79. If you have completed 87 or more semester hours, file a program of study or declaration of graduation (see "Declaration of Graduation," page 81).

**What if I have a disability or am a veteran?** If you have a disability and will be requesting academic accommodations, see "Disability Resources for Students," page 42, and "Applicants with Disabilities," page 64. Veteran students using GI benefits. See "Veterans Services," page 39.

**How do I get financial aid?** In addition to applying for admission, complete the Free Application for Federal Student Aid (FAFSA) by the February 15 priority date. If you apply after the priority date, you will be considered a late applicant and are less likely to receive grants and Federal Work Study due to funding limitations. You may obtain a paper FAFSA from any financial aid office or complete an electronic application at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). See "Student Financial Assistance," page 39, and "Financial Aid," page 52.

**How do I find a place to live and purchase a meal plan?** Apply early (before March 1, 2002) for the best chance to live on campus beginning in fall semester 2002. Housing is not guaranteed. See "Residential Life," page 39, for information on student housing. Meal plans may be pur-

chased in advance for ASU or upon arrival on campus. For more information, call Residential Life at 480 965 3515, and Campus Dining Services at 480 965 3464. For ASU East housing, call 480 727 1700, or see "Campus and Student Services," page 624, in the "ASU East" section, for more information on dining and housing.

**What about orientation?** Attend orientation on your campus, where questions regarding advising, class registration, student IDs, on campus housing and other pertinent topics are addressed. For information about Main Campus orientation, see "Orientation," page 64. Information regarding ASU East orientation can be obtained by calling 480 727 1088.

**How do I get an ID, and what about parking?** See "Proof of Identification," page 70, about obtaining an ASU student ID card. If you are planning to park at ASU Main, purchase a parking decal. See "Parking Decals," page 48. Parking on ASU East campus is free. ASU East students may obtain student ID cards at the OASIS in the Center Building.

**What about placement examinations and university testing requirements?** See "Placement Examinations," page 68, and "University Testing Requirements," page 68.

**Before I register for classes, how do I get an advisor?** Call the college of your major to schedule an appointment with an academic advisor. See "Academic Advising," page 69. For ASU East Academic Advising, see "Advising," page 624.

**When and how do I register?** See the *Schedule of Classes* for registration procedures and dates or access registration information online at [www.asu.edu/registrar](http://www.asu.edu/registrar). Remember that you must first provide proof of measles immunity to the Student Health and Wellness Center. See "Immunization Requirements," page 64.

**Once I am registered and ready to go, how can I ensure my success at ASU?** Consider enrolling in UNI 100 Academic Success at the University. See "Division of Undergraduate Academic Services," page 113.

**What's left to do now that the business is taken care of?** Become involved in the university by getting to know professors, joining student organizations, and taking advantage of the many cultural, recreational, and social opportunities. For more information on ASU Main campus life, call Student Life at 480 965 6547, Sun Devil Involvement Center at 480 965 2255, or ASASU at 480 965 3161, for ASU East, call 480 727 3278. Investigate the challenges and advantages of the Barrett Honors College. See the "The Barrett Honors College," page 118.

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# Academic Definitions

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**Academic Renewal.** Under certain circumstances an undergraduate who has been readmitted to the university after an absence of at least five years may have the former record treated in the same manner as transfer credits. See "Academic Renewal," page 70.

**Advanced Placement.** Students who have taken an advanced placement course of the College Entrance Examination Board (CEEB) in their secondary school and who have taken an Advanced Placement Examination of CEEB may receive credit. See "Advanced Placement," page 65.

**AIEP.** The American English and Culture Program features an intensive course of study designed for adult international students who desire to become proficient in English as a second language. See "American English and Culture Program," pages 63 and 709.

**ASU East.** ASU East is located at the former Williams Air Force Base. See "ASU East," pages 24 and 622.

**ASU Extended Campus.** The ASU Extended Campus offers courses evenings and weekends via television and the Internet, at on- and off-campus sites, and through Independent Learning. See "ASU Extended Campus," pages 24 and 703.

**ASU Main.** ASU Main is the principal campus of ASU located in Tempe. See "ASU Main," page 24.

**ASU West.** ASU West is the Phoenix campus of ASU, established to serve the educational needs of residents in western Maricopa County. See "ASU West," pages 24 and 689.

**Audit Enrollment.** A student who audits a course attends regularly scheduled class sessions but earns no credit. See "Audit Enrollment," page 72.

**Buckley Amendment.** See "Family Educational Rights and Privacy Act" in this section.

**CLEP.** As part of the College Level Examination Program (CLEP), students who have taken a College Level Examination of the College Entrance Examination Board may receive credit. See "College Level Examination Program (CLEP)," page 65.

**Comprehensive Exam.** A comprehensive examination is intended to permit a student to establish academic credit in a field in which the student has gained experience or competence equivalent to an established university course. See "Comprehensive Examinations," page 65.

**Concentration.** A concentration is a formalized selection of courses within a major.

**Cooperative Education.** Cooperative Education is any educational program that requires alternating classroom and

work experience in government or industry. The work experience exists for its educational value. See "Cooperative Programs," page 71.

**Corequisite.** A requirement to be met *while* taking one course, such as taking another particular course, is a corequisite. See also "Prerequisite" in this section.

**Course Prefix.** A course prefix is a three letter designation assigned to a group of courses. The "Course Prefix Index," page 6, provides a comprehensive list. See also "Cross Listing" in this section.

**Credit Enrollment.** One semester hour represents a minimum of one 50 minute class exercise per week per semester. A minimum of 120 semester hours is required for graduation with a baccalaureate degree. To obtain credit, a student must be properly registered and pay fees for the course.

**Cross-Listing.** One course may have more than one course prefix and may be offered by more than one instruction unit. Some units may require students to enroll in a course under a certain prefix to receive credit properly. Catalog course descriptions indicate courses that are cross listed.

**Cum Laude.** An undergraduate student with a minimum of 60 semester hours of course work at ASU and a cumulative GPA of 3.40 to 3.59 graduates *cum laude*. See "Graduation with Academic Recognition," page 82. See also "Magna Cum Laude" and "Summa Cum Laude" in this section.

**Declaration of Graduation.** The Declaration of Graduation uses the Degree Audit System (DARS). DARS is an automated process that matches courses a student has completed with the requirements of a particular academic degree program, producing a report that shows the student which requirements are satisfied and which remain to be fulfilled. See "Declaration of Graduation," page 81.

**Drop Add.** Drop add is a process in which a student who has registered for courses for a semester or summer session may drop or add courses through the first week of classes in a semester or the first two days of a summer session. See "Drop Add," page 73.

**Family Educational Rights and Privacy Act.** The federal Family Educational Rights and Privacy Act of 1974, also known as FERPA or the Buckley Amendment, sets forth the requirements governing the protection of the privacy of the education records of students who are or have been in attendance at ASU. See "Student Records," page 77.

**Freshman.** A student who has earned 24 or fewer semester hours is a freshman.

**General Studies Requirement.** This is a university requirement of all undergraduates. See "Meeting the General Studies Requirement," page 83.

## ACADEMIC DEFINITIONS

**GPA.** The ASU grade point average (GPA) is obtained by dividing the total number of ASU grade points earned by the number of ASU semester hours graded. Grade point averages are rounded to the nearest hundredth of a grade point. See "Grade Point Average," page 4.

**Grade Points.** For the purpose of computing the GPA, grade points are assigned to each of the grades for each semester hour as follows: "A," four points; "B," three points; "C," two points; "D," one point, and "E," zero points.

**Graduate Catalog.** The *Graduate Catalog* describes the procedures and requirements for enrollment in the Graduate College. See "Graduate College," page 516.

**Graduate-Level Courses.** Courses numbered from 500 to 999 are designed for graduate students. See "Graduate Level Courses," page 55.

**Incomplete.** A mark of "I" (incomplete) is given by the instructor only when a student who is otherwise doing acceptable work is unable to complete a course because of illness or other conditions beyond the student's control. See "Incomplete," page 72.

**International Baccalaureate.** Students who have taken a higher level examination through the International Baccalaureate program may receive university credit. See "International Baccalaureate (IB) Diploma/Certificate," page 65.

**Junior.** A student who has earned from 56 to 86 semester hours is a junior.

**Lower-Division Courses.** Courses numbered from 100 to 299 are designed primarily for freshmen and sophomores. See "Lower Division Courses," page 55.

**Magna Cum Laude.** A student with a minimum of 60 semester hours of course work at ASU and a cumulative GPA of 3.60 to 3.79 graduates *magna cum laude*. See "Graduation with Academic Recognition," page 82. See also "Cum Laude" and "Summa Cum Laude" in this section.

**Major.** A major is a formalized group of courses contained within the program of study. See "ASU Baccalaureate Degrees," page 10, and "ASU Graduate Degrees," page 529.

**Minor.** A minor is a formalized group of courses contained within the program of study available from some instruction units. See "Minors," page 108.

**Omnibus Course.** An omnibus course is offered on an experimental or tutorial basis when the course content is new or periodically changes. See "Omnibus Courses," page 56.

**Pass/Fail Enrollment.** A mark of "P" (pass) or "F" (fail) may be assigned for this grading option. This grading method may be used at the option of individual colleges and schools within the university. See "Pass/Fail Enrollment," page 73.

**Placement Examination.** A proficiency examination is given to waive a course requirement, validate certain trans-

fer credits in professional programs, or determine a student's ability in a field where competence is an important consideration. See "Placement Examinations," page 68.

**Prerequisite.** A requirement to be met *before* registering for one course, such as completing another particular course, is a prerequisite. See also "Corequisite" in this section.

**Probation.** A student's college assumes responsibility for enforcing academic standards and may place any student on probation who has failed to maintain good standing. A student on academic probation is required to observe any rules or limitations the college may impose as a condition for retention. See "Probation," page 76.

**Restricted Complete Withdrawal.** From the fifth week to the transaction deadline for a semester and from the seventh day to the transaction deadline for a summer session, students may withdraw from all courses but receive a mark of "W" only from courses in which the instructor certifies that they are passing at the time of the withdrawal. See "Restricted Withdrawal," page 73.

**Restricted Course Withdrawal.** From the fifth week to the end of the 10th week of a semester and from the seventh day to the end of the third week of a summer session, students may withdraw with a mark of "W" only from courses in which the instructor certifies that they are passing at the time of withdrawal. See "Restricted Withdrawal," page 73.

**Senior.** A student who has earned 87 or more semester hours is a senior.

**Sophomore.** A student who has earned from 25 to 55 semester hours is a sophomore.

**Summa Cum Laude.** A student with a minimum of 60 semester hours of course work at ASU and a cumulative GPA of 3.80–4.00 graduates *summa cum laude*. See "Graduation with Academic Recognition," page 82. See also "Cum Laude" and "Magna Cum Laude" in this section.

**TOEFL.** The Test of English as a Foreign Language (TOEFL) is taken by students whose native language is not English. See "TOEFL," page 63, and "AECF" in this section.

**Transcript.** An official transcript lists in chronological order all courses taken at ASU. It includes all grades received. It is signed and dated by the registrar and displays the embossed seal of the university. Unofficial transcripts include all information shown on the official transcript, plus information concerning changes, additions, etc., to the record. See "Transcripts," page 75.

**Unrestricted Course Withdrawal.** During the first four weeks of a semester or the first six days of a summer session, a student may withdraw from any course with a mark of "W." See "Unrestricted Course Withdrawal," page 73.

**Upper-Division Courses.** Courses numbered from 300 to 499 are designed primarily for juniors and seniors. See "Upper Division Courses," page 55.

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# General Information

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## MISSION

Arizona State University has emerged as a leading national and international research and teaching institution with a primary focus on Maricopa County, Arizona's dominant population center. This rapidly growing, multicampus public research university offers programs from the baccalaureate through the doctorate for approximately 49,700 full time and part time students through ASU Main in Tempe, ASU West in northwest Phoenix; a major educational center in downtown Phoenix; ASU East, located at the Williams Campus (formerly Williams Air Force Base) in southeast Mesa; and other instructional, research, and public service sites throughout Maricopa County. ASU is a modern university that applies its research capabilities to the rapidly evolving needs of Maricopa County and the state.

Arizona State University's goal is to become a world class university in a multicampus setting, one of the very best public universities in the nation. Its mission is to provide outstanding programs in instruction, research, and creative activity, to promote and support economic development, and to provide service appropriate for the nation, the state of Arizona, and the state's major metropolitan area. To fulfill its mission, ASU places special emphasis on the core disciplines and offers a full range of degree programs—baccalaureate through doctorate. To become competitive with the very best public universities, ASU recognizes that it must offer quality programs at all degree levels in a broad range of fundamental fields of inquiry. ASU will continue to dedicate itself to superior instruction; to excellent student performance; to original research, creative endeavor, and scholarly achievement; and to outstanding public service and economic development activities. As a result of this dedication, ASU was named to Research Extensive (formerly Research I) status in 1994, recognizing ASU as a premier research institution.

## ORGANIZATION

Arizona State University is part of a university system governed by the Arizona Board of Regents, a body with perpetual succession under the constitution and laws of Arizona. The board consists of eight citizens appointed by the governor of the state for terms of eight years, and two students with the elected governor and state superintendent of public instruction as members ex officio.

The regents select and appoint the president of the university, who is the liaison between the Arizona Board of Regents and the institution. The president is aided in the administrative work of the institution by the provosts, vice presidents, deans, directors, department chairs, faculty, and other officers. Refer to "Administrative Personnel," page 613.

The academic units develop and implement the teaching, research, and service programs of the university, aided by the university libraries, museums, and other services.

The faculty and students of the university play an important role in educational policy, with an Academic Senate, joint university committees and boards, and the Associated Students serving the needs of a large institution.

## ACADEMIC ACCREDITATION AND AFFILIATION

See "Accreditation and Affiliation," page 715.

## EQUAL OPPORTUNITY AND AFFIRMATIVE ACTION

It is the policy of ASU to provide equal opportunity through affirmative action in employment and educational programs and activities. Discrimination is prohibited on the basis of race, color, religion, national origin, citizenship, sex, sexual orientation, age, disability, special disabled veteran, other eligible veteran, or Vietnam era veteran status. Equal employment opportunity includes but is not limited to recruitment, hiring, promotion, termination, compensation, benefits, transfers, university sponsored training, education, tuition assistance, and social and recreational programs.

ASU is committed to taking affirmative action in increasing opportunities at all levels of employment and to increasing participation in programs and activities by all faculty, staff, and students. Affirmative action is directed toward minority persons, women, special disabled veterans, other eligible veterans, Vietnam era veterans, and persons with disabilities.

## University Policy Prohibiting Discriminatory Harassment

**Harassment Prohibited.** Subject to the limiting provisions of "Freedom of Speech and Academic Freedom" specified below, it is a violation of university policy for any university employee or student to subject any person to harassment on university property or at a university sponsored activity.

**Harassment Defined.** Actions constitute harassment if (1) they substantially interfere with another's educational or employment opportunities, peaceful enjoyment of residence, physical security, and (2) they are taken with a general intent to engage in the actions and with the knowledge that the actions are likely to substantially interfere with a protected interest identified above. Such intent and knowledge may be inferred from all the circumstances.

**Freedom of Speech and Academic Freedom.** Neither this nor any other university policy is violated by actions that amount to expression protected by the state or federal constitutions or by related principles of academic freedom. This limitation is further described in the ASU First Amendment Guidelines, the current version of which supplements this policy and is available in the Office of the General Counsel.

## GENERAL INFORMATION

**Relationship to the Work of the Campus Environment Team.** If harassment is discriminatory it falls within the education, monitoring, reporting, and referral functions of the Campus Environment Team. Harassment is discriminatory if taken with the purpose or effect of differentiating on the basis of another person's race, sex, color, national origin, religion, age, sexual orientation, disability, or Vietnam era veteran status.

## INTERGROUP RELATIONS CENTER

The only center of its kind on a college campus, the Intergroup Relations Center (IRC) works with students, staff and faculty to promote positive intergroup relations to prepare students for living in a diverse democracy, to create greater understanding between the different groups that exist at ASU, and to provide faculty, staff and students opportunities to explore the rich diversity that is part of the ASU campus community. Through structured interaction programs, including intergroup dialogues, story circles, retreats, and institutes and via educational and training workshops, the center promotes diversity as one of the university's greatest assets. The educational work of the center encompasses gender, race/ethnicity, sexual orientation, age, disability status, nationality, adult reentry, and other salient social identities found at ASU.

Some of the programs and initiatives offered by the center include Voices of Discovery, a six-week student intergroup dialogue program that brings together small groups of African Americans and white/EuroAmericans, male and females, American Indians and white/EuroAmericans, Latinos and white/EuroAmericans, gays, lesbians, bisexuals, heterosexuals, and other groups to interact with and learn about each other. Leadership 2000, an annual four-day, off-campus retreat brings together 80 students from many different backgrounds to explore their own and others' diversity. Allies in Action, a diverse group of students sponsored by the IRC, works together to improve intergroup relations on the campus. Intergroup Relations Theatre and Music programs use the arts to interactively involve, entertain, and educate participants about issues of diversity. The center also offers programs for faculty and staff addressing issues of diversity in the workplace and the classroom and custom designed programs, consultation, and intergroup conflict mediation services for a wide range of campus offices, academic departments, and student groups.

For more information, visit the center in SSV 25, call 480-965-1574, or access the IRC Web site at [www.asu.edu/provost/intergroup](http://www.asu.edu/provost/intergroup)

## HISTORY OF ARIZONA STATE UNIVERSITY

On February 26, 1885, House Bill 64, "An Act to Establish a Normal School in the Territory of Arizona," was introduced in the 13th Legislative Assembly of Arizona Territory by John Samuel Armstrong. The bill, strongly supported by Charles Trumbull Hayden of Tempe, passed the House on March 6 and the Council on March 1 and was signed by Governor F.A. Trumble on March 12, 1885, thereby founding the institution known today as Arizona State University. Under the supervision of Principal Hiram Bradford Farmer, instruction was instituted on February 8, 1886, when 33 stu-

dents met in a single room on land donated by George and Martha Wilson of Tempe.

The institution began with the broad obligation to provide "instruction of persons . . . in the art of teaching and in all the various branches that pertain to good common school education; also, to give instruction in the mechanical arts and in husbandry and agricultural chemistry, the fundamental law of the United States, and in what regards the rights and duties of citizens."

With the growth of the state, especially the surrounding Phoenix metropolitan area, the school has carried forward this charter, accompanied by successive changes in scope, name and governance.

**The Early Years.** For the first 14 years, the school was governed by six principals. At the turn of the century and with another new name, Normal School of Arizona, President Arthur John Matthews brought a 30-year tenure of progress to the school.

He assisted in changing the school to an all-college student status; the Normal School had enlisted high school students who had no other secondary educational facilities in Arizona. He embarked on a building schedule that included the state's first dormitories. Of the 18 buildings constructed while Matthews was president, six are still in use. His legacy of an "evergreen campus," with the import of many shrubs and trees and the planting of Palm Walk, continues to this day. The main campus is a nationally recognized arboretum.

Matthews also saw to it that the Normal School was accredited outside the state. His service on national education organization boards was conducive to this recognition. The school remained a teacher's college in fact and theory during Matthews' tenure, although the struggle to attain status as a university was ongoing.

An extraordinary event occurred March 20, 1911, when former President Theodore Roosevelt visited the Tempe school and spoke from the steps of Old Main. He had dedicated the Roosevelt Dam the day before and was impressed with Arizona. He noted that construction of the dam would benefit central Arizona's growth and that of the Normal School. It would be another year before the territory became a state.

During the Great Depression, Ralph W. Sweetman was hired as president for a three-year term. This was a time of uncertainty for educational institutions. Although enrollment increased due to the depression, many faculty were terminated and faculty salaries were cut. The North Central Association became the accrediting agency for Arizona State Teachers College.

**The Gammage Years.** In 1913, Grady Gammage, then president of Arizona State Teachers College at Flagstaff, became president of Arizona State Teachers College at Tempe, a tenure that would last for nearly 25 years.

The Graduate Division was created in 1937, and the first master's program was established the same year.

On March 5, 1945, the three state institutions of higher learning came under the authority of one Arizona Board of Regents, which oversees ASU today.

The phenomenal growth of the college began after the end of World War II. Dr. Gammage had foreseen that the



G.I. Bill of Rights would flood campuses everywhere with returning veterans. Many of the veterans who had received military training in Arizona had fallen in love with the state and vowed to return after the war. The numbers within one year were staggering: in the fall semester of 1945, 553 students were enrolled; over the weekend semester break in January 1946, enrollment increased 110 percent to 1,163 students. Successive semesters saw continuing increased enrollment.

Like his predecessor, Dr. Gammage oversaw the construction of a number of buildings. His greatest dream, that of a great auditorium, came to fruition after his death. He laid the groundwork for it with Frank Lloyd Wright, who designed what is now the university's hallmark building, Grady Gammage Memorial Auditorium, built in 1964.

**Years of Growth and Stature.** During the 1960s, with the presidency of Dr. G. Homer Durham, Arizona State University began its academic rise with the establishment of several new colleges (the College of Fine Arts, the College of Law, the College of Nursing, and the School of Social Work) and the reorganization of what became the College of Liberal Arts and Sciences and the College of Engineering and Applied Sciences. Perhaps most important, the university gained the authority to award the Doctor of Philosophy and other doctoral degrees.

The next three presidents—Harry K. Newburn, 1969–71, John W. Schwada, 1971–81, and J. Russell Nelson, 1981–89—and Interim President Richard Peck, 1989, led the university to increased academic stature, expansion of the campuses, and rising enrollment.

A transformation of ASU has taken place under the leadership of Dr. Lattie F. Coor, who became the university's 15th president on January 1, 1990. The university has grown to serve the Valley of the Sun through multiple campuses and the College of Extended Education, an architecture that positions ASU to meet future enrollment growth.

The quality of undergraduate students and programs has improved substantially during the past decade. In 2001, ASU had its best year in history in prestigious national scholarship competitions. Students brought home the Rhodes, Truman, Marshall, Goldwater, and Udall awards, making ASU one of only two public universities in the nation to be represented in all five top scholarship awards. Enrollment in the Barrett Honors College has more than tripled since 1988, from 800 to more than 2,600 students majoring in all disciplines throughout ASU.

Coor's strong commitment to increased diversity is reflected in the faculty and student body. During the last decade, the university's minority enrollment has more than doubled. This fall, minorities represent 30 percent of the university's freshman class and nearly 20 percent of the entire enrollment.

With regard to ASU faculty, the percentage of minorities has increased to 15.3 percent—up from 10.3 percent five years ago. ASU has the highest numbers and highest proportion of Hispanic faculty of any major U.S. research university.

ASU has become one of the leading research universities in America, developing nationally recognized programs in a number of fields, including accounting; astrobiology; design

science; ecology and evolutionary biology; electron microscopy; engineering; exercise science; music; nanotechnology; psychology; and solid-state science. As part of Coor's vision for the economic vitality of Arizona, ASU is committing to a strategic focus on four critical research areas that are essential in the New Economy: materials; biomedicine and biotechnology; information science and technology; and manufacturing. These initiatives already have a significant impact on the Arizona economy, representing more than 207,000 jobs, 2,000 businesses, and \$1.5 billion in exports in the first quarter of 2000.

Part of Coor's legacy to the university—before retiring at the end of the 2002 academic year—is a successful fund raising campaign. Through private donations, primarily from the local community, \$500 million is being invested in targeted areas that most significantly impact the future of ASU. Among the campaign's achievements are the naming and endowing of the Barrett Honors College, the Katherine K. Herberger College of Fine Arts, and the Morrison School of Agribusiness and Resource Management at ASU East; the creation of many new endowed faculty positions, and hundreds of new scholarships and fellowships.

**Research Extensive Status.** ASU was named to Research Extensive (formerly Research I) status by the Carnegie Foundation for the Advancement of Teaching in early 1994. Nationally, 88 universities have been granted this status, indicating successful garnering of support for research projects and educating future scientists.



Grady Gammage Memorial Auditorium

Tom Trumble photo

## GENERAL INFORMATION

### Athletics

The original nickname for the Normal School of Arizona athletic teams was the Owls. Athletics other than Sunday hikes and lawn tennis were not part of the early curriculum.

During President Matthews' tenure, some team competition began. The Tempe Bulldogs saw some interesting and rough competition with the University of Arizona Wildcats. In the 1940s, the college's teams became the Sun Devils.

In 1979, the university joined the Pacific 10 Conference. In 1987, ASU became the first Arizona football team to play in the Rose Bowl, defeating the University of Michigan Wolverines 22-15. ASU made its second appearance in 1997 against Ohio State.

In 2000, ASU finished ninth nationally in the Sears Roebuck Cup, which recognizes the top athletic programs in the country. Six teams finished in the top 20 nationally with three teams posting top 10 finishes. Men's swimming and diving finished 10th, women's tennis finished in a tie for fifth, while men's indoor track and field also finished 10th.

### UNIVERSITY CAMPUSES AND SITES

**ASU Main.** ASU Main is located near the heart of metropolitan Phoenix in the city of Tempe (population 155,623). Nearby are the municipalities that make up the fast-growing Valley of the Sun: Chandler, Gilbert, Glendale, Mesa, Scottsdale, and other communities.

ASU Main comprises more than 700 acres and offers outstanding physical facilities to support the university's educational programs. The campus is characterized by broad pedestrian malls laid out in an easy-to-follow grid plan, spacious lawns, and subtropical landscaping.

**ASU East.** ASU East opened at the Williams Campus in the fall of 1996 and now serves approximately 2,400 students. ASU East offers many of the features of a small residential college in a rural area while providing access to the resources of a major research university and the amenities of a large metropolitan area.

A partnership between ASU East and Chandler Gilbert Community College allows students to take courses from both institutions and complete an ASU baccalaureate degree entirely at the Williams Campus, at some savings in tuition.

The campus offers excellent educational facilities and residential opportunities which include a choice of traditional residence halls or two- to five-bedroom homes. A shuttle service provides transportation between ASU East and ASU Main. The 600-acre ASU East campus is easily accessible via major interstate routes.

For more information, see "ASU East," page 622.

**ASU West.** A vital component of the ASU multicampus system, ASU West serves nearly 6,000 undergraduate and graduate students on its growing campus. ASU West provides a friendly, small-campus atmosphere along with the services, resources, and expertise of a nationally acclaimed, PAC 10 research university. Founded in 1984 with upper division and master's programs, ASU West became a four-year university campus in 2001. The faculty and staff share a deep commitment to learner-centered education.

ASU West prides itself on serving the diverse needs of students who balance academics with the multiple demands

of work and family through convenient scheduling of small classes. The campus mission balances teaching and research, faculty-student collaboration, interdisciplinary perspectives, and many thriving university-community partnerships. Courses at ASU West lead to 29 bachelor's degrees, nine master's degrees, and eight professional certificates.

The campus is located in northwest Phoenix between 43rd and 51st Avenues on West Thunderbird Road. The core campus was completed in 1991 and features a variety of state-of-the-art classroom and student service buildings, including Fletcher Library, the Sands Classroom Building, the Computer Laboratory Classroom Building, Kiva Lecture Hall, the University Center Building, and the Faculty Administration Building.

For more information, see "ASU West," page 689. For complete information and course listings, see the *ASU West Catalog*.

**ASU Extended Campus.** The ASU Extended Campus ([www.asu.edu/extended](http://www.asu.edu/extended)) goes beyond the boundaries of the university's three physical campuses to provide access to quality academic credit and degree programs for working adults through flexible schedules; a vast network of off-campus sites; classes scheduled days, evenings, and weekends; and innovative delivery technologies, including television, the Internet, and Independent Learning. The ASU Extended Campus offers programs in partnership with the campuses and colleges of ASU, including a variety of professional continuing education programs. The ASU Downtown Center is the anchor location of the ASU Extended Campus. Lifelong learning opportunities are offered to students of all ages throughout Maricopa County and Arizona through the ASU Extended Campus.

**ASU Downtown Center.** Located in downtown Phoenix, 502 E. Monroe, the ASU Downtown Center offers a variety of daytime and evening courses of interest to employees in private businesses and government agencies and to individuals seeking personal growth and enrichment. These courses are scheduled at a variety of convenient times and offered through various modes of delivery. Professional continuing education, certificate programs, and lecture series are also available. Access to ASU library information and resources, ASU computing resources, and the Internet is available through the center's computer lab.

**ASU Research Park.** The mission of the ASU Research Park ([researchpark.asu.edu](http://researchpark.asu.edu)) is to enhance Arizona's high-value research-based economic development and to build the university's capacity to educate and advance knowledge. To this end, the Research Park serves to attract new corporate and regional headquarters and research and development firms to Arizona headquarters and firms that broaden the base for potential research, interact with graduate students, consult with university faculty, cosponsor seminars on research topics, and provide employment opportunities for ASU graduates.

The Research Park has numerous major tenants, including ASML lithography, Avnet CMG, Bright Horizons Family Solutions, Indium Satellite, Motorola Labs, Motorola University, National Association for Purchasing Management,

Philips Electronics, and Walgreens Healthcare Plus. The Research Park contains over 1.5 million square feet of developed space on 320 acres.

**Camp Tontozona.** Located in the famed Mogollon Rim country near Kohl's Ranch, northeast of Payson, this continuing education facility serves the needs of academic departments conducting teaching and research in mountain terrain. The camp is also available to faculty, staff, graduate students, and alumni for family use. For more information, call 480 965 6851.

**Deer Valley Rock Art Center.** Deer Valley Rock Art Center, located two miles west of the Black Canyon Freeway on Deer Valley Road, is operated by the ASU Department of Anthropology in consultation with the Hopi, Yavapai, and Gila River Indian tribes. It includes more than 1,500 petroglyphs that cover the eastern slope of Hedgepeth Hills. For more information, call 623 582 9007.

**The Arboretum.** The Arboretum at Arizona State University is the entire 722-acre main campus. The Arboretum is home to a flourishing oasis of plants from around the world. This virtual outdoor classroom includes more than 300 species of trees and other woody ornamental and herbaceous plants from diverse geographic regions as well as the Sonoran Desert. The Arboretum contains one of the best collections of palms and conifers in the desert Southwest and a growing collection of native Southwestern plants. The Arboretum's date palm collection has received international recognition by the American Association of Botanical Gardens and Arboreta North American Plant Collection Consortium.

The Arboretum's collection began with Arthur J. Matthews. By the time Matthews' 30-year presidency was finished, nearly 1,500 trees of 57 species and more than 5,700 feet of hedges were planted. One of his most enduring landscape projects was the planting of Mexican Fan Palms along Palm Walk in 1916, which extends from University Drive south to the Student Recreation Complex. Today the Arboretum has expanded its collection to include nearly 4,000 trees of 164 species varieties.

The Arboretum is open to the public free of charge 365 days a year from dawn to dusk. Walking tours of the various collections and points of interest are designated by signage denoting those areas. Many of the plants in the collection throughout campus are marked with identification plaques.

## UNIVERSITY LIBRARIES AND COLLECTIONS

The collections of the university's libraries comprise more than 3.6 million volumes, approximately 7 million microform units, and more than 33,500 periodical and serial subscriptions. Computer access to commercially and locally produced databases and the ability to borrow research materials from other libraries enhance local resources. ASU is a member of the Association of Research Libraries and the Center for Research Libraries.

For telephone numbers, see the "University Libraries," page 546. For more information, access the Web site at [www.asu.edu/lib](http://www.asu.edu/lib)

**Charles Trumbull Hayden Library.** The Charles Trumbull Hayden Library, designed by Weaver and Drover in 1966, houses the largest multidisciplinary collection at ASU. In addition to the open stack areas, separate collections and service areas include Access for Disability Accommodations, Circulation, Current Periodicals and Microforms; Government Documents Services; Interlibrary Loan and Document Delivery Services; Library Instruction, Systems, and Technology L.I.S.T.; Reference; Reserve; Special Collections, and Archives and Manuscripts, which includes the Arizona Collection, the Chicano Research Collection, the Benedict Visual Literacy Collection, and the Labriola National American Indian Data Center. Archives and Manuscripts holds the papers of several major Arizona political figures, including Senator Carl Hayden with historic materials about Arizona, Chicano, and Indian affairs.

The Special Collections department includes the Child Drama Collection, and collections of materials by and about William S. Burroughs, the Press of Thomas Board Mosher, and the Patten Herbal Collection. For more information, access the Web site at [www.asu.edu/lib/hayden](http://www.asu.edu/lib/hayden).

### Architecture and Environmental Design Library.

Located in the College of Architecture and Environmental Design/North building, this library has a general collection that focuses on architecture, design, graphic design, interior design, landscape architecture, and planning. The library's Special Collections and Archives, Architectural Drawings Collection, and Materials Resource Center provide additional opportunities for research. For more information, access the Web site at [www.asu.edu/caed/AEDlibrary](http://www.asu.edu/caed/AEDlibrary)

**Arizona Historical Foundation.** Under a cooperative agreement with ASU, the Arizona Historical Foundation houses a library of several thousand volumes, manuscript collections, maps, and photographs, and a large collection of audiovisual materials. Housed in the Charles Trumbull Hayden Library, the collection's focus is on the history of Arizona and the Southwest. For more information, access the Web site at [www.users.qwest.net/~azhistorical/fdn](http://www.users.qwest.net/~azhistorical/fdn).

**Fletcher Library.** Located at the ASU West campus, Fletcher Library utilizes a range of electronic systems, from compact discs to telecommunications networks, to provide access to resources and delivery of materials. Its holdings include more than 315,000 volumes, 5,000 serial subscriptions, and 1.4 million microforms selected to complement ASU West course offerings. For more information, access the Web site at [www.west.asu.edu/library](http://www.west.asu.edu/library).

**Law Library.** The John J. Ross William C. Blakley Law Library is located on McAllister Avenue. See "Law Building and Law Library," page 323, for more information.

**Music Library.** A large collection of music scores, recordings, books, music reference materials, and listening facilities for individuals and groups is located on the third floor of the Music Building, West Wing. For more information, access the Web site at [www.asu.edu/lib/music](http://www.asu.edu/lib/music)

**Daniel E. Noble Science and Engineering Library.** The Daniel E. Noble Science and Engineering Library houses books, journals, and microforms in the sciences.

## GENERAL INFORMATION

engineering, and nursing, the Map Collection; and the U S Patent and Trademark Depository. For more information, access the Web site at [www.asu.edu/lib/noble](http://www.asu.edu/lib/noble)

**University Archives.** The University Archives collection is available for use at the Luhrs Reading Room in Hayden Library. The collection 1885 present comprises university theses and dissertations, administrative records of the university; historical photographs and personal papers of faculty, staff, and alumni, and student, faculty, and official university publications. The historic University Archives Building on Tyler Mall is the home of the 1907 Gallery, which hosts exhibits of historical photographs from the collections of the Department of Archives and Manuscripts. For more information, access the Web site at [www.asu.edu/lib/archives/archives.htm](http://www.asu.edu/lib/archives/archives.htm).

**Video Resources.** Located in ECA 100, Video Resources supports a variety of educational media services, including reserve videotapes of all ASU courses broadcast on cable television and ITFS, video viewing study carrels, and a studio facility for students and faculty. In addition, Video Resources houses thousands of video titles in the ASU Media circulation collection that may be checked out for three days. Special Collections include the WorldFest Video Archive, Horizon, C-SPAN Booknotes, and C-SPAN I and II. Patrons with a current university ID may check out any available videotape for three days. Interlibrary loans and video booking may be scheduled by calling 480 965 7564. For more information, call 480 965 5046, or access the Web site at [www.asu.edu/lib/video](http://www.asu.edu/lib/video)

## PERFORMING AND FINE ARTS FACILITIES

**ASU Art Museum.** The ASU Art Museum serves students and scholars within and beyond the university and as a cultural resource for the Phoenix Metropolitan area. Additionally, the museum serves a public beyond the immediate area through traveling exhibitions and publications that not only document the exhibitions but also offer critical insight into the museum's areas of concentration.

Exhibitions, education programs, and publications are interdisciplinary and educational and are designed to engage viewers with art that is relevant to their lives. New technologies in the content of art and in the approaches to reaching new audiences are eagerly and openly adopted.

Collections and exhibitions focus on contemporary art, particularly new media and new methods of presentation, art by Latin American artists; art from the Southwest, prints, both historic and contemporary; and crafts, emphasizing American ceramics. The museum was founded by a gift of historic American paintings, which are on continuous display, including works by Gilbert Stuart, Albert Pinkham Ryder, Winslow Homer, Georgia O'Keeffe, and Romare Bearden. The contemporary art holdings include works by Nam June Paik, Lorna Simpson, Vernon Fisher, Slick Coe, and Enrique Chazoy. Exhibitions and collections are housed in galleries and study rooms within the internationally award-winning Nelson Fine Arts Center.

Educational programs include artist residencies and dialogues with classes, a student docent program, internships, and research assistantships, lectures and symposia, in gallery

materials, special curricula based school programs, and school and public tours. For information on upcoming exhibitions and programs, call 480 965 2757.

**ASU Downtown Center Galleria.** The Galleria, located on the second floor of the ASU Downtown Center, features work by ASU faculty, staff, students, and local artists. The Galleria is a member of Artlink First Friday's and the Phoenix Art Detour. Open Monday through Saturday, from 8 AM to 5 PM, the Galleria features new and different works each month. For information on current or upcoming exhibitions, call 480 965 3046.

**Computing Commons Gallery.** One of the unique features of the Computing Commons building is the gallery located off the main lobby in the northwest corner of the building. This unique gallery is designed for showcasing technology based artwork as well as more traditional two dimensional graphic presentations. The millennium is an exciting time for the arts, as technology based tools and techniques open new avenues for creativity. This creativity is reflected in the Computing Commons Gallery's exhibits.

**Dance Multimedia Learning Center.** The Department of Dance Multimedia Learning Center is a facility designed to promote and encourage the use of media and computer technology in dance education and performance at ASU.

**Dance Studio Theatre.** The Dance Studio Theatre is a 300 seat performance space that is the mainstage performance site for the 12 formal and informal concerts produced annually by the Department of Dance. The theatre is one of the only dance spaces in the country that is designed with interactive and telematic capabilities. The facility uses video based motion sensing and enables dancers to interact with sound, lighting, images and video in performance. High speed Internet connectivity enables the space to connect with other telematic spaces for dual, multisite and Web performances.

**Drama City.** Housed in a 50 year old former church, Drama City is the primary performance venue for the Institute for Studies in the Arts. The space is a black box, 60 by 30 feet with fixed lighting positions and flexible control stations. The area can seat up to 100 and is equipped for performance or installation pieces. The facility also houses a wide range of technology for performance and presentation including video projection, automated liminares, and a unique computerized control system for integrated media usage.

**Gallery of Design.** Housed in the College of Architecture and Environmental Design, the Gallery of Design features traveling exhibitions on design and urban issues.

**Paul V. Galvin Playhouse.** Built to stage the largest productions of the ASU Theatre, the Paul V. Galvin Playhouse is a 496 seat proscenium stage theatre set at the east end of the Nelson Fine Arts Center. The Department of Theatre's annual season of 12 to 15 plays also includes productions in the Lyceum and Prism theatres and the Nelson Fine Arts Center Studios.

**Grady Gammage Memorial Auditorium.** A versatile center for the performing arts designed by Frank Lloyd Wright and named for the late ASU President Grady Gammage. Grady Gammage Memorial Auditorium seats 3,000 and has won wide acclaim for its design and acoustics. In addition to the great hall and related facilities including the Aeolian Skinner organ contributed by Hugh W. and Barbara V. Long the building contains classrooms and workshops for the Herberger College of Fine Arts.

**The Intelligent Stage.** The Intelligent Stage is a production and performance facility designed to explore the possibilities of interactive stage performance. The facility includes a sprung floor, 30 dimmers and a four channel sound system, a composer workstation; workstations for designing interactive MIDI performances, and a movement sensing, image processing workstation. All are networked together for multimedia performance and production. Resident artists and technologists provide design and logistical support for projects in the facility.

**Katzin Concert Hall.** Located in the new music building expansion, the Katzin Concert Hall seats 350 people. Primarily used for solo and chamber music recitals, the hall houses a nine foot Hamburg concert Steinway piano. The acoustics are enhanced by the maple paneled stage and the multifaceted walls and ceiling.

**Louise Lincoln Kerr Cultural Center.** Located in Scottsdale, the Louise Lincoln Kerr Cultural Center offers cultural events, especially in the performing arts, to the community.

**Lyceum Theatre.** A small but technically sophisticated 164 seat proscenium theatre, the Lyceum Theatre is a venue for faculty productions and a laboratory for the work of student playwrights, directors, and actors.

**Music Theatre.** As part of the music complex, the Music Theatre, modeled after the Wagnerian Theatre in Bayreuth, Germany, rises five stories and seats an audience of 500. This theatre is the home of many operatic and musical productions.

**J. Russell and Bonita Nelson Fine Arts Center.** Designed by Albuquerque architect Antoine Predock, the J. Russell and Bonita Nelson Fine Arts Center is a spectacular, 119,000 square foot, village like aggregate of buildings that includes five galleries of the ASU Art Museum, the Paul V. Galvin Playhouse, the University Dance Laboratory, seven specialized theatre and dance studios, a video studio, and a variety of scenic outdoor features including courtyards, fountains, pools, and a 50 by 100 foot projection wall designed for outdoor video.

**Northlight Gallery.** The Northlight Gallery is dedicated to museum quality exhibitions of historical and contemporary photography. Located in Matthews Hall, it is open during the academic year.

**Organ Hall.** Located in the new music building expansion, the Organ Hall houses the Fritts Organ. This tracker action pipe organ is designed to capture the qualities of baroque European organs. The hall is designed to complement the

organ with a barrel vaulted ceiling and wooden benches to seat 140 persons.

**Prism Theatre.** The Prism Theatre is an alternative black box space devoted to student productions.

**Recital Hall.** Located on the fifth floor of the Music Building, the Recital Hall is an intimate 125 seat facility that opens onto a rooftop courtyard.

**Sundome Center for the Performing Arts.** As America's largest single-level theatre, the Sundome Center for the Performing Arts in Sun City West has 7,169 seats. The theatre is equipped with sophisticated, state-of-the-art lighting systems, and a single span roof affords each seat a clear view. As one of Arizona's premier entertainment venues, the Sundome provides an array of top entertainment from Las Vegas style concerts to classical ballets to celebrity lectures.

**Television Station KAET.** KAET, Channel 8 is the university's PBS station. Studios of the award winning station are located in the Stauffer Communication Arts Building. To operate 24 hours a day, KAET employs more than 50 ASU students and interns. To learn more about KAET TV, access its Web site at [www.kaet.asu.edu](http://www.kaet.asu.edu), or call 480-965-3506.

**University Dance Laboratory.** A flexible performance space within the Nelson Fine Arts Center, the University Dance Laboratory is designed specifically for experimental dance productions. Along with the Dance Studio Theatre in the Physical Education Building East, the University Dance Laboratory is used by the Department of Dance for experimental performances.

**Harry Wood Gallery.** Housed in the Art Building (ART 120) the Harry Wood Gallery provides temporary exhibitions of the visual arts during the academic year.

## COMPUTING FACILITIES AND SERVICES

Computers are fundamental tools for learning, instruction, and research in every college and department at ASU. The Information Technology (IT) department provides a variety of computing equipment and services available for use by students, faculty, and staff. IT also provides programing, statistics, graphics, and other applications for micro computers and mainframe computing systems. University wide electronic mail and the library's online catalog are accessible through a high speed campus network and from off campus via the Internet.

A wide range of university information is available online at [www.asu.edu](http://www.asu.edu), the official ASU Web site. Prospective and current students can find details regarding undergraduate and graduate degree programs, financial assistance, housing and student activities. The ASU Web site is also the gateway to many online services, including:

1. finding and registering for classes;
2. viewing online grade reports;
3. checking e-mail, creating personal and course Web pages;
4. accessing courses online via myASU, the university's customizable portal;
5. viewing campus event calendars;

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6. searching the student faculty staff directory;
7. browsing general and graduate catalogs; and
8. obtaining information about ASU athletics

IT provides several service centers, described below, for the ASU academic community

**Computing Commons.** The Computing Commons building (CPCOM) provides a "technology hub" that draws together students, faculty, and staff from all disciplines on campus in an environment conducive to maximum creative interaction. The building and its facilities have drawn national recognition and acclaim as a model for the support of instruction and research in a technology-based environment. The Computing Commons houses a 246 workstation computing site, seven electronic classrooms, a Research Support Lab, the Customer Assistance Center, a computer store, and a technology-based gallery (see "Computing Commons Gallery," page 26).

**Computing Sites.** In addition to the Computing Commons Atrium, there are three additional computing sites located on the ASU Main campus, available for ASU faculty, staff and students with an ASURITE UserID. Site configurations and hours of operation vary; current information is available on the Web at [www.asu.edu/it/fyi/sites](http://www.asu.edu/it/fyi/sites).

**ASU Downtown Center Computer Lab.** The ASU Downtown Center offers an alternative to the computer labs at ASU Main. This facility features 20 Pentium III 800 Mhz computers—all loaded with Microsoft Windows 2000 and Office 2000, Internet Explorer, Netscape—and other software. A high speed laser printer and a color flatbed scanner are available, and faculty may use the ceiling-mounted computer projection system. The ASU Downtown Center is located in downtown Phoenix. It is a unique educational, applied research, and community service facility designed to address the multifaceted urban opportunities of the central Phoenix community. For more information, call 480 965 3046, or access the Web site at [www.asu.edu/xed/dtccplab](http://www.asu.edu/xed/dtccplab).

**Computer Accounts.** Computer Accounts, located in CPCOM 105, assists users with account access issues (including lost passwords), disk space quotas, accounts for non ASURITE services (including mainframe computer access), and other account-related services. Most computing services are accessible through the standard ASURITE UserID and password, available from self-subscription workstations located in a variety of on-campus locations or online at [www.asu.edu/asurite](http://www.asu.edu/asurite). More information about Computer Accounts is available on the Web at [www.asu.edu/it/fyi/accounts](http://www.asu.edu/it/fyi/accounts).

**Customer Assistance Center.** The Customer Assistance Center, located in CPCOM 202, offers a library of reference manuals, computing periodicals, and other information concerning computing systems and software. Self-paced training is available for various software applications running under the Windows or Unix operating systems. The center also distributes communication, virus protection, and other site-licensed software as well as site-specific documentation in a "print on demand" format. Print on demand is also

available on the Web at [www.asu.edu/quicklook](http://www.asu.edu/quicklook). More information about the center is available from the Web site at [www.asu.edu/cacenter](http://www.asu.edu/cacenter).

**Help Desk/Consulting.** The IT Help Desk provides ASU students, faculty, and staff with centralized systems information and first level assistance in resolving computing problems. Services are available by telephone at 480 965 6500, on the Web at [www.asu.edu/helpdesk](http://www.asu.edu/helpdesk), and in person at the Customer Assistance Center. CPCOM 202. The IT Help Desk assists with data recovery and repair; AFS file space and permissions for Web sites; communication, e-mail, and virus protection software, and computing and equipment problem referral.

**Instruction Support (IT/IS).** Instruction Support serves as a development center for the use of technology in the design and delivery of instruction. Staffed with students, faculty, and researchers skilled in the areas of system design, graphics, interactive software, networked delivery, and digital video, the innovation-driven group pushes the development of instruction to the limits of available technology. From this perspective, IT/IS fosters technological innovation by serving as a research and development unit, a production group, and a training facility.

IT/IS collaborates with faculty in the coordination of cross-disciplinary research and production projects relating to the integration of technology with education. Through partnerships with faculty and groups outside ASU, grant writing teams are able to leverage support not otherwise available to a single academic unit or faculty member. Central to effective support services is the establishment of a partnership among the various support units within the university. IT/IS coordinates the efforts of these groups which include the College of Extended Education, University Libraries, Disability Resources for Students, and the Office of Research and Creative Activities—to provide faculty with a wide array of instruction support services.

IT/IS offers consultation sessions tailored toward enhancing the instructional use of technology by the university teaching community. Sessions range from an introduction to technology in education through advanced and customized approaches for instructors in specific programs.

More information about IT/IS is available from the Web site at [is.asu.edu](http://is.asu.edu).

**Instruction Support (IS) Lab.** The IS Lab provides an environment in which faculty may seek and receive one-on-one, guided, or independent support for course development and delivery. Expert staff work closely with faculty to refine and develop their skills and confidence in the design and delivery of instruction through a variety of technology-supported means, both synchronous and asynchronous. Located in CPCOM 213, the IS Lab provides faculty, university professionals, and graduate students with a unique opportunity to integrate technology with instruction. The IS Lab sponsors workshops and demonstrations and serves as a dynamic clearinghouse of information and referrals for effective integration of technology with education.

**Research Support (RS).** Research Support provides assistance to faculty, staff, and student researchers engaged in

scientific and creative endeavors. RS involves consulting in the use of software tools and program coding directly related to projects or specific research including consulting for computation, statistics, visualization, and GIS platforms in conjunction with software package installation and use; media conversion; and product evaluation.

A variety of computation facilities are provided in support of research and creative endeavors within the ASU community, ranging from individual workstations to SMP, MPP servers and mainframes. Extended computer capabilities are available through access to national computing centers. More information is available at [www.asu.edu/itfy](http://www.asu.edu/itfy) research.

**Research Support (RS) Lab.** The Research Support Lab seeks to establish partnerships with faculty, staff, and students to acquire, create, and enhance research and creative endeavors through the effective use of visualization and Geographic Information Systems (GIS) technologies.

The lab is located in CPCOM 235. Its staff assists researchers with hardware, software, and data to facilitate the creation of geographic information systems for spatial analysis, query, and display. The lab supports research from various disciplines and provides additional resources to students who are enrolled in GIS classes, serving as a focal point for GIS users to meet and share information and technical expertise.

Additionally, Visualization Services provides faculty, staff, and graduate students with the hardware and application software resources and services needed for the high level graphics and visualization used in research. Researchers receive assistance ranging from interactive viewing of scientific data to visualization in the liberal and the performing arts and other endeavors. Visualization Services provides a focal point for developing technologies in software, hardware, and communications.

Further information on GIS and Visualization Services is available on the Internet at [www.asu.edu/gis/lab](http://www.asu.edu/gis/lab) and [www.asu.edu/visualization](http://www.asu.edu/visualization), respectively.

## ALUMNI ASSOCIATION

Founded in 1894, the Alumni Association is a volunteer led organization committed to serve and unite alumni for the purpose of advancing the interests of ASU and its alumni. The association provides a variety of services for ASU alumni as well as a series of events scheduled around the country.

With more than 240,000 alumni living in the United States and throughout the world, the association plays an important role as the university's primary support organization. Comprising more than 50 groups, the campus, college, club, and chapter organizations (4Cs) of the association provide opportunities for all alumni to stay involved with the part of ASU that interests them most.

Members of the Board of Directors are elected each spring. See "ASU Alumni Association Board of Directors," page 619. For more information about the association or its board of directors, call 1-800-ALUMNUS or 480-965-ALUM.

## PROGRAM ASSESSMENT AND THE OFFICE OF UNIVERSITY EVALUATION

The Office of University Evaluation is a research and service facility that focuses on assessing and improving the effectiveness of the university's academic and support programs. The office conducts, coordinates, and manages research designed to measure the degree to which courses, curricula, and academic programs impart knowledge and skills to students as well as the quality of support provided to students. The results of these studies, or assessments, are used to enhance both the support provided to students and the intellectual integrity of an ASU education.

In order for the university to assess and improve its programs, periodic measurement of student experiences, perceptions, and intellectual growth must be obtained. When asked by the university, students are expected to participate in one or more evaluative procedures, such as the ASU Report Card. These evaluative procedures are designed to assess the efficacy of the total university experience, including teaching and learning and support programs and are not used in individual grading. The information obtained is one of the means used to improve the quality of the educational experience for this and future generations of ASU students.

For more information, call the office at 480-965-9291, or contact them via e-mail at [oue@asu.edu](mailto:oue@asu.edu). The Office of University Evaluation's Web site is [www.asu.edu/oue](http://www.asu.edu/oue).

## LEARNING AND TEACHING EXCELLENCE

The Center for Learning and Teaching Excellence is dedicated to enhancing teaching and learning possibilities at ASU. To support this mission, the center provides a variety of training, support, and professional development programs for faculty, academic professionals, graduate students who have teaching responsibilities, and academic departments throughout the university. Our resources and services specifically focus on advancing improvements in student learning, especially the manner in which teachers promote and foster that learning.

Some of the center's goals are:

1. assisting faculty, programs, and departments to assess and develop instructional approaches;
2. providing workshops designed to enhance specific instructional practices for all who teach;
3. serving as a clearinghouse of information about activities, events, resources, and projects that may enhance teaching and learning;
4. developing synergistic relationships with existing campus units;
5. providing instructional assistance to new faculty on campus;
6. encouraging reflective use of instructional technologies; and
7. collaborating with other campus units to secure grant monies for new course development, exploration of innovative teaching methods, and/or research in effective instruction.

For more information, call 480-965-9401.

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**Learning and Teaching Excellence Courses.** Sections of LTE 598 are offered in the annual Summer Institute on College Teaching and Winter Institute on College Teaching, designed for faculty and teaching assistants who wish to develop diverse strategies for enhancing the students' learning.

### LEARNING AND TEACHING EXCELLENCE (LTE)

See the *Graduate Catalog* for the LTE courses.

## RESEARCH CENTERS, INSTITUTES, AND LABORATORIES

These units serve the university's mission in research. They are overseen by eight of the colleges, the vice provost for Research, and the ASU East provost.

**Center for Research on Education in Science, Mathematics, Engineering, and Technology.** The Center for Research on Education in Science, Mathematics, Engineering, and Technology (CRESMET), an alliance of the ASU Colleges of Education, Engineering and Applied Sciences, and Liberal Arts and Sciences, was initiated in 1999, growing out of what was previously the Center for Innovation in Engineering Education. The mission of the center is to bring together individuals, programs, and organizations interested in improving K-20 science, mathematics, engineering, and technology education to research, develop, and assess educational theories, curricula, courses, and administrative policies that impact science, mathematics, engineering, and technology education. The center also encourages and supports wide scale sharing and implementation of effective approaches to producing a more scientifically and technologically literate populace and more capable science, mathematics, engineering, and technology majors.

**Research.** CRESMET pursues research and development that demonstrates coherent content, and conceptually powerful mathematics, science, engineering, and technology education from kindergarten through college (K-20).

**Partnering.** CRESMET supports collaborations across the traditional boundaries of university, community, business, and local education agencies.

**Sharing.** CRESMET establishes communication avenues for intellectual and material products proven effective in supporting powerful learning in science, mathematics, engineering, and technology fields.

For more information, visit CRESMET in ECG 303, call 480 965 5350, or access the CRESMET Web site at [www.eas.asu.edu/~cresmet](http://www.eas.asu.edu/~cresmet)

### College of Architecture and Environmental Design

**Herberger Center for Design Excellence.** The Herberger Center for Design Excellence is the research, outreach, and publication arm of the College of Architecture and Environmental Design. The center facilitates and promotes research, scholarship, and creative activity among the faculty and students of the college in the fields of architecture, interior design, industrial design, graphic design, landscape architecture and urban design, and environmental planning.

In keeping with its outreach mission, the Herberger Center also publishes reports, newsletters, and books that help

to inform debate on key design and planning issues in the desert southwest. The center works closely with the faculty to publish books, working papers, and conference proceedings that promote scholarship in the planning and design disciplines.

The Joint Urban Design Program (JUDP), based in downtown Phoenix, is the center's outreach arm. It facilitates interaction among college faculty, students, and the broader community, and offers design as a way to further dialogue and to address urban issues. The JUDP conducts intensive workshops—community based charrettes that help neighborhoods, groups, and other city stakeholders focus on concerns and strategies to respond to critical needs. Student groups and faculty work with the JUDP to identify real world problems that they address in studio projects. For more information, call 480 727 5146, or access the JUDP Web site at [www.asu.edu/caed](http://www.asu.edu/caed)

### College of Business

**Arizona Real Estate Center.** The Arizona Real Estate Center (AREC), established in 1980, serves a multifunction research and educational role to foster better understanding of the real estate sector of the Arizona economy. Housing, commercial real estate, and construction activity data for Arizona and Maricopa County are collected by the center and are utilized for a variety of ongoing projects, including the calculation of affordability indexes and the computation of housing appreciation figures for the metropolitan Phoenix area. The center's annual outlook series provides a public forum for prominent members of the real estate industry to present their perceptions of market conditions.

For more information, call 480 965 5440, access the AREC Web site at [www.cob.asu.edu/seid/arec](http://www.cob.asu.edu/seid/arec), or write

ARIZONA REAL ESTATE CENTER  
PO BOX 874011  
TEMPE AZ 85287 4011

**Bank One Economic Outlook Center.** The Bank One Economic Outlook Center (EOC), established in 1985, specializes in economic forecasts of Arizona and the Western states. The center publishes the *Bank One Arizona Blue Chip Economic Forecast* monthly, *Greater Phoenix Blue Chip Economic Forecast* quarterly, *Western Blue Chip Economic Forecast* (10 issues per year), and *Blue Chip Job Growth Update* monthly, an update of current job growth in the United States. The center also publishes *Mexico Consensus Economic Forecast* quarterly, a forecast and historical data on the Mexican economy.

For more information, call 480 965 5543, access the EOC Web site at [www.cob.asu.edu/seid/eoc](http://www.cob.asu.edu/seid/eoc), or write

BANK ONE ECONOMIC OUTLOOK CENTER  
PO BOX 874011  
TEMPE AZ 85287 4011

**Center for the Advancement of Small Business.** The Center for the Advancement of Small Business (CASB) is a 21st century leader in business education, practice, and research providing high quality, relevant programs, and information services focused on small business since 1994. The center enables students and existing small and medium



size businesses to participate, contribute, and compete in the global economy.

The center provides students from all disciplines with programs and resources that prepare them for positions of leadership in small and medium-size businesses, and aids small and medium size businesses in the continuous improvement of their human resources and business practices. CASB also engages in applied research on entrepreneurship and the emerging changes and trends in small business.

For more information, visit CASB in BAC 111, call 480 965 3962, access the CASB Web site at [www.cob.asu.edu/seidcasb](http://www.cob.asu.edu/seidcasb), or write

CENTER FOR THE ADVANCEMENT  
OF SMALL BUSINESS  
PO BOX 874406  
TEMPE, AZ 85287-4406

**CAPS Research.** CAPS (Center for Advanced Purchasing Studies) Research was established in November 1986 by a national affiliation agreement between the ASU College of Business and the Institute for Supply Management. It is the first and only program of its kind in the nation and is located in the Arizona State University Research Park, about eight miles south of the main ASU campus. CAPS Research conducts in depth research into the problems facing the purchasing profession today and, through its studies, seeks to improve purchasing effectiveness and efficiency and the overall state of purchasing readiness.

For more information, call 480 752 2277, access the Web site at [www.capsresearch.org](http://www.capsresearch.org), or write

CAPS RESEARCH  
ASU RESEARCH PARK  
2055 E CENTENNIAL CIRCLE  
PO BOX 22160  
TEMPE AZ 85285 2160

**Center for Business Research.** The Center for Business Research (CBR) has been a consistent source of information on the Arizona and metropolitan Phoenix economies since 1951. Both the business community and the public have had access to the economic indicators produced by the ongoing projects of the center, including quarterly net migration estimates for Arizona and Maricopa County. CBR also conducts projects under the sponsorship of private and public agencies. Recent examples include the economic impact of Super Bowl XXX, a study of seasonal migration to Arizona, and an analysis of the state's hospital industry. A monthly publication of the center, *AZB Arizona Business*, plays a major role in disseminating to the public the economic information compiled by the research centers of the Seidman Institute. The staff within the center is available to respond to inquiries and to provide available data.

For more information, call 480 965 3961, access the CBR Web site at [www.cob.asu.edu/seidcbr](http://www.cob.asu.edu/seidcbr), or write

CENTER FOR BUSINESS RESEARCH  
PO BOX 874011  
TEMPE AZ 85287 4011

**Center for Services Leadership.** The Center for Services Leadership (CSL) is a leading university-based hub devoted to the study of services marketing and management since 1985. The CSL addresses how any company can improve internal service processes and use service and customer satisfaction as a competitive advantage. The center encourages firms to share the best ideas and practices for adaptation across industries. Though grounded in marketing, the center's work is cross functional, integrating concepts and techniques from marketing, operations, human resources, and management.

The center's areas of expertise include customer retention and loyalty; service quality; service delivery; professional services such as healthcare, accounting, and consulting; customer satisfaction, services strategy; service culture; and service recovery. A leader in the business and academic communities, the Center for Services Leadership work advances the knowledge base in the field and provides applicable frameworks, concepts, and tools.

The center offers its partner firms topflight executive education in services through the annual "Activating Your Firm's Service Culture" symposium, the annual "Services Marketing and Management" institute program, and the annual "Information Technology Services Marketing" course and provides customized executive education programs and research projects tailored to and conducted for charter member firms.

The center also actively supports the College of Business M.B.A. program that offers a specialization in Services Marketing and Management. This specialization infuses strong company based experience and encourages summer internships.

For more information, visit the CSL in BAC 440, call 480 965 6201, or write

CENTER FOR SERVICES LEADERSHIP  
PO BOX 874106  
TEMPE, AZ 85287 4106

**L. William Seidman Research Institute.** The mission of the L. William Seidman Research Institute is to encourage and support applied business research by serving as a public access point to the College of Business. Specific goals include transferring new knowledge to the public; supporting faculty and student research; encouraging the development of educational programs grounded in business research; and conducting high quality, applied business research.

The institute encourages research activity by providing research support services to the faculty, staff, and students of the college. These services include facilitating grant preparation and assistance in grant administration. The institute's research centers act as the focal point for involving faculty and students in applied research on important issues identified by the business community.

The institute also serves an important role in the broader educational mission of the College of Business by disseminating the findings of research conducted by the faculty, students, and research center staff, as well as the results of business research from other sources around the world. This is accomplished through a variety of mechanisms: newsletters and research reports; seminars and conferences; internet

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Web pages; media interviews and press releases; and by responding to inquiries from businesses, public officials, and the community. For more information, call 480 965 5367, access the institute's Web site at [www.cob.asu.edu/se/di](http://www.cob.asu.edu/se/di), or write

LEWELLYN SEMAN RESEARCH INSTITUTE  
PO BOX 874011  
TEMPE AZ 85287 4011

**Institute for Manufacturing Enterprise Systems.** See "Institute for Manufacturing Enterprise Systems," page 33, for information about this joint venture of the College of Business and the College of Engineering and Applied Sciences.

### College of Education

**Southwest Center for Education Equity and Language Diversity.** The Southwest Center for Education Equity and Language Diversity conducts, supports, and promotes research, scholarship, and innovative practice in language education designed for minority students in public schools. The center gives priority to scholarship and field-based work relating to educational equity and the systematic usage of heritage languages and cultures. The aim is to integrate these resources into the educational experience of all children and youth.

The center's scope of work is driven by a need to merge several related topics into a single articulated conversation: biliteracy; promoting the role of public education to strengthen communities; and enabling bi-ethnic collaboration among educators. The long-term vision is to help develop a new pedagogy tailored to the needs of the bicultural region the center serves. The integration of these themes shapes the scope of work for the center in the following areas.

1. Within the broad scope of educational policy research, the center focuses on scholarly inquiry that contributes to informed and enlightened discourse on language policy for schools and society, especially on the harmonious coexistence of English, the national language, and Spanish, the second most used language in our society.
2. Life in the American Southwest is bicultural and increasingly binational. In this Pan American context, bilingualism will gain in importance. Equally important will be the collective ability of residents on both sides of the border to work harmoniously in pursuit of a common destiny that will be ever more intertwined. Schools must help children and youth develop skills and predispositions to face this challenge.
3. Mexico and the United States are becoming more interdependent. In this context, Mexican educators should have opportunities to contribute to improving education for Mexican immigrant children in U.S. schools. To enable this, schools must create pilot projects and an infrastructure for collaboration among institutions and individuals on both sides of the U.S.-Mexico border.

For more information, visit the Southwest Center for Education Equity and Language Diversity in ED 440, call 480 965 7134, or access the center's Web site at [www.asu.edu/educ/seed](http://www.asu.edu/educ/seed).

**Center for Indian Education.** The Center for Indian Education is an interdisciplinary research and service center established in 1959. It promotes studies in American Indian policy and administration that contribute to scholarship and effective practices in education, professional training, and tribal capacity building. It is structured to foster relations between the university and sovereign tribes and to provide training and technical assistance for community programs. The center publishes the *Journal of American Indian Education* and sponsors workshops and colloquia that bring together scholars and tribal community leaders.

The center provides leadership through a group of American Indian faculty and is organized on the basis of scholarly expertise of the faculty. In addition to College of Education faculty, responsibilities are shared by faculty from the School of Social Work, the School of Justice Studies, the College of Liberal Arts and Sciences, and the College of Law. Areas currently studied include administrative leadership, policy analysis, bilingual education, health and welfare policy, justice studies, and program development in professional studies.

For more information, visit the center in ED 402, call 480 965 6292, or access the center's Web site at [coe.asu.edu/cie](http://coe.asu.edu/cie).

**Education Policy Studies Laboratory.** Located within the College of Education, the Education Policy Studies Laboratory (EPSL) conducts and coordinates original research in areas such as student performance standards, assessment, curriculum, and commercialism in schools. EPSL not only disseminates its analyses and reports to policy makers and educators, but concentrates on providing the public with readable accounts of research.

The EPSL houses two research units—the Commercialism in Education Research Unit (CERU), which is the only national academic research center dedicated to schoolhouse commercialism, and the Education Policy Research Unit (EPRU), which conducts original research and facilitates implementation of educational innovations.

For more information, contact Alex Molnar, director and professor of Educational Leadership and Policy Studies, EDB L1 01, 480 965 1886, or access the laboratory's Web site at [www.asu.edu/educ/epsl](http://www.asu.edu/educ/epsl).

**CRESMET.** See "Center for Research on Education in Science, Mathematics, Engineering, and Technology," page 30.

### College of Engineering and Applied Sciences

**Center for Low-Power Electronics.** The Center for Low-Power Electronics (CLPE) is a collaborative effort of the University of Arizona and ASU to address fundamental, industry-relevant research problems in the design of ultra-low-power microelectronic systems. The CLPE is formed under the State Industry/University Cooperative Research initiative of the National Science Foundation (NSF). The NSF and the State of Arizona recognize that Arizona has the key ingredients to become a leader in this technology. It has

the world's leading companies involved in the manufacture of portable computing and communication systems. The technical areas of focus of the Center for Low Power Electronics include

1. basic materials, alternative materials, and their fabrication;
2. device design optimization;
3. design of digital, analog, and hybrid low power circuits; and
4. power based physical design for single and multi chip VLSI systems

For more information, visit the center in ENGR 115, or call 480 965-8654.

**Center for Solid State Electronics Research.** The Center for Solid State Electronics Research (CSSER) focuses on research in the areas of epitaxial semiconductor crystal growth, device characterization and modeling, defect behavior in semiconductors material characterization, environmentally benign and other novel processing, fine line lithography, surface analysis, and transport. Major programs address semiconductor device modeling, transport theory, optoelectronics, ferroelectrics, semiconductor processing, microwave devices, and ultra submicron and nano structured devices. New thrust areas include molecular electronics and MEMS.

For more information, visit CSSER in ENGR 115, call 480 965 3708, or access the CSSER Web site at [ceaspub.eas.asu.edu/csser](http://ceaspub.eas.asu.edu/csser).

**Institute for Manufacturing Enterprise Systems.** The Institute for Manufacturing Enterprise Systems (IMES) is a joint venture of the College of Business and the College of Engineering and Applied Sciences, established to enhance manufacturing research and industrial collaboration at the interface between the two colleges. IMES's mission is to establish ASU as an international leader in the creation and dissemination of new knowledge in the area of global manufacturing for the new economy. It particularly focuses on how manufacturing impacts Arizona. Research thrust areas include virtual manufacturing, enterprise systems, knowledge management, and software in the system solution.

For more information, visit the institute in GWC 402, or call 480 965 3709.

**Center for System Science and Engineering Research.** The Center for System Science and Engineering Research (SSERC) has established four focus areas: nonlinear dynamical systems, control theory and its applications, mathematical neuroscience, and scientific computing and interdisciplinary systems engineering. The center is jointly sponsored by the College of Engineering and Applied Sciences and the College of Liberal Arts and Sciences. Its main goals are the creation and enhancement of interdisciplinary and cooperative research, graduate education, and public service programs in the areas of systems science, applied mathematics, and computation.

For more information, visit the SSERC in GWC 606, call 480 965 8382, or access the SSERC Web site at [www.eas.asu.edu/sserc](http://www.eas.asu.edu/sserc).

**CRESMET.** See "Center for Research on Education in Science, Mathematics, Engineering, and Technology," page 30.

**Telecommunications Research Center.** Telecommunications play a vital role in home, commercial, entertainment, educational, scientific, and military systems. The Telecommunications Research Center focuses its interests and activities in research and educational programs. The approach is to conduct basic and applied research, develop technologies, and provide education programs in all major areas of telecommunications, from signal generation to reception. The targeted areas of excellence are antennas, propagation, and scattering; microwave circuits, devices, and measurements; optical communications; signal processing, broadband switching; and wireless communication systems. Ultramodern laboratories and computational facilities are associated with the center.

For more information, visit the center in GWC 411, call 480 965 5311, or access the center's Web site at [trc.eas.asu.edu](http://trc.eas.asu.edu).

### College of Law

**Center for the Study of Law, Science, and Technology.** Located in the College of Law, the Center for the Study of Law, Science, and Technology conducts research, edits *Future Metrics: The Journal of Law, Science and Technology* in cooperation with the American Bar Association Section on Science and Technology, and sponsors seminars, workshops, and conferences. Through these activities, the center seeks to contribute to the formulation and improvement of law and public policy affecting science and technology and to the wise application of science and technology in the legal system. Current areas of research include communications and telecommunications law, computer related law, forensic science and statistics, legal issues and biotechnology, law and medicine, and law and social science.

For more information, visit the center in LAW 201, or call 480 965 2124.

### College of Liberal Arts and Sciences

**Arizona Center for Medieval and Renaissance Studies (ACMRS).** The Arizona Center for Medieval and Renaissance Studies is a research unit serving affiliate scholars from ASU, Northern Arizona University, and the University of Arizona. It represents a variety of disciplines, including history, literature, philosophy, religion, language, music, art, and science. ACMRS enriches academic offerings in medieval and renaissance studies by sponsoring one or two visiting professors each year. Graduate research assistantships are also available through the center.

Significant opportunities for the study of the Middle Ages and the Renaissance exist at ASU. Hayden Library has an extensive microfilm collection and many rare books in medieval and renaissance studies. ACMRS also sponsors a lecture series each semester covering a variety of topics.

Other programs include an annual conference, a public symposium, a summer study abroad program at the University of Cambridge (United Kingdom), and student exchange programs with the University of Copenhagen (Denmark) and the University of Kalmar, Sweden.

## GENERAL INFORMATION

Since 1996, ACMRS has published Medieval and Renaissance Texts and Studies (MRTS), a major series of editions, translations, and reference works. In collaboration with the University of Massachusetts at Dartmouth and the University of Kansas, ACMRS sponsors and coedits *Mediterranean Studies*, an annual interdisciplinary journal publishing articles on all aspects of the Mediterranean region. ACMRS also sponsors a book series titled *Area Studies in the Middle Ages and the Renaissance*, published by Brepols Belgium.

ACMRS also partners with the Renaissance Society of America and the University of Toronto in *Iter*, a massive, retrospective, online medieval and renaissance bibliography covering all languages and disciplines, and is the official site of the Medieval Academy of America's online data project offering information on medieval centers, programs, committees, and regional associations in North America.

For more information, visit ACMRS in SS 224, call 480 965 5900, or access the ACMRS Web site at [www.asu.edu/class/acmrs](http://www.asu.edu/class/acmrs)

**Cancer Research Institute.** Significant advances in the treatment of human cancer and other serious medical problems depend upon scientists well trained in organic chemistry, biochemistry, and biology. The Cancer Research Institute provides graduate students with the specialized training necessary for research in the discovery and development of effective anticancer drugs. Among various activities, laboratory personnel are pursuing a unique program concerned with isolation, structural identification, and synthesis of naturally occurring anticancer agents from marine animals, plants, and marine microorganisms.

For more information, visit the institute in CRI 209, or call 480 965 3351.

**Center for Asian Studies.** Through its East Asian and Southeast Asian studies programs, the Center for Asian Studies serves as research coordinator for Asian studies' faculty and graduate students in a variety of disciplines. The center sponsors colloquia and research conferences. It also publishes two scholarly *Monograph Series* and a newsletter on Southeast Asian studies, *Suvannabhumi*, which have an international readership. Graduate students may apply for research assistantships in the center and its program.

The center works with the office of International Programs to administer student exchange programs with a number of universities in Asia. The center also sponsors an Asian film series each semester. A reading room is located in the center office suite offering a variety of Asian and English language publications and newspapers from and about Asia.

For more information, visit the center in WHALL 105, or call 480 965 7184.

**Center for Meteorite Studies.** The nation's largest university collection of extraterrestrial materials is available for research in the Center for Meteorite Studies. Teaching and research on meteorites, meteorite craters, and related areas of space and planetary science are accomplished through the regular academic units in cooperation with the center.

For more information, visit the center in PS C151, or call 480 965 6511.

**Center for Solid State Science.** The Center for Solid State Science is a research unit within the College of Liberal Arts and Sciences.

The membership comprises faculty and academic professional researchers and research support personnel, most of whom hold simultaneous appointments in affiliated academic units. The Center for Solid State Science is the ASU focal point for interdisciplinary research on the properties and structure of condensed phases of matter at the interfaces between solid state chemistry and physics, earth and planetary science, and materials science and engineering. It also supports interdisciplinary approaches to science and engineering educational outreach activities.

The center provides an administrative home for large, multidisciplinary, block funded research projects. These include the NSF supported Materials Research Science and Engineering Center MRSEC and the Interactive Nano Visualization for Science and Engineering Education (IN VSEE) project. To support these activities, members of the center operate modern and sophisticated research facilities and organize regular research colloquia and symposia.

Principal topical areas of research in the center include studies of structure and reactivity of surfaces and interfaces, electronic materials, advanced ceramics and glasses, synthesis of new materials, high pressure research, development of techniques in high resolution electron microscopy and microstructural and chemical analysis, development of visualization techniques at different scales of magnification for science education and community outreach.

The research facilities of the center include the Center for High Resolution Electron Microscopy CHREM and the Goldwater Materials Science Laboratories GMSL.

**CHREM** The center operates several ultrahigh resolution and ultra high vacuum electron microscopes and supports microscopy methods and instrumentation development, including holography, position and time resolved nano spectroscopy and energy filtered imaging and diffraction. The center provides high resolution capability for a large external group from other universities and industry.

**GMSL** These facilities include

1. the Materials Facility (MF), which provides a wide range of synthesis and processing capabilities for preparation of specimen materials. MF also provides thermal analysis for study of solid state reactions and Auger and X ray photoelectron spectroscopy for analysis of surface compositions and electronic structure of surfaces;
2. the Materials Science Electron Microscopy Laboratory (MSEML), which provides state of the art electron microscopes for analysis of microstructures, including imaging and diffraction, and high spatial resolution chemical analysis using energy dispersive X ray and electron energy loss micro spectroscopy;
3. the Ion Beam Analysis of Materials (IBeAM) facility, which provides compositional and structural determination of the surface and near surface regions (0–2mm) of solids by ion beam analysis where elemental composition and depth distribution information are needed. Channeling experiments are

used to determine crystal perfection and site occupancy;

4. the Secondary Ion Mass Spectrometry (SIMS) laboratory, which provides depth profile and point composition analysis with very high chemical sensitivity, on the order of one part per billion, including isotopic analysis for many materials. SIMS is also used as a chemical microscope, to image elemental distributions on specimen surfaces;
5. the Scanning Probe Microscopy Laboratory (SPM), which provides facilities for nanoscale viewing of solid surfaces using scanning tunneling microscopy (STM), atomic force microscopy (AFM), and related techniques. The SPM laboratory serves as a focus for undergraduate research training programs and educational and outreach activities;
6. the Facility for High Pressure Research, which provides facilities for synthesis of new materials and for geochemistry geophysics studies at up to 25 GPa (250,000 atmospheres) and temperatures greater than 2000 °C. These facilities are complemented by diamond anvil cells capable of *in situ* studies at up to one million atmospheres. This laboratory provides a focus for core research projects within the MRSEC;
7. the Goldwater Materials Visualization Facility (GMVF), which consists of a battery of linked work stations for remote operation of instruments and data collection, capture of images in real time, and advanced computing and simulation of materials. The GMVF is used in research and in undergraduate and graduate education, as well as in educational and community outreach; and
8. other specialized laboratories under development, which include high-resolution X-ray diffraction for thin film characterization, optical spectroscopy, and nuclear magnetic resonance spectroscopy for solid state studies and research on materials under extreme conditions.

These facilities provide the primary teaching and research resources used by students in the Science and Engineering of Materials interdisciplinary Ph.D. program and the undergraduate option for Materials Synthesis and Processing. They are also used extensively by students in disciplinary programs from affiliated departments.

For more information, visit the center in PS A213, call 480/965 4544, or access the Web site at [www.asu.edu/class555](http://www.asu.edu/class555).

**Center for the Study of Early Events in Photosynthesis.** The ASU Center for the Study of Early Events in Photosynthesis was established in 1988 as part of a joint grant program of the Department of Energy, the National Science Foundation, and the Department of Agriculture. In 1990, it was designated a Regents Center of the University. Since September of 1995, it has been funded by the Office of the Vice Provost for Research and the College of Liberal Arts and Sciences. The center consists of about 90 students, post doctoral associates, and research scientists led by 15 faculty members in the Department of Chemistry and Biochemistry and the Department of Plant Biology. These research groups

share a common goal: understanding the process of photosynthesis, which is responsible for producing all of our food and filling the vast majority of our energy and fiber needs. The impetus for development of the center was the premise that photosynthesis is a complex problem that will only yield to an investigation using a wide variety of approaches and techniques. Thus, the center serves as an infrastructure supporting individual ASU scientists and fostering multidisciplinary cooperative research projects.

The ultimate objective of the research is the elucidation of the basic principles governing the biochemical and biophysical processes of photosynthetic energy storage. This goal is being realized via investigation of the early events of photosynthesis, including, light absorption and excitation transfer in photosynthetic antennas; the mechanism of primary photochemistry in plant and bacterial systems; secondary electron transfer processes; structure and assembly of photosynthetic antennas, reaction centers and electron transfer proteins; pigment-protein interactions; artificial and biomimetic photosynthetic solar energy conversion systems, and mechanisms of biological electron transfer reactions.

The center is equipped with state of the art instrumentation which allows students to do frontier research in a broad range of disciplines. Equipment includes a variety of pulsed lasers for measurements with time resolution ranging from sub picoseconds to seconds, a 500 MHz NMR instrument, an EPR spectrometer, a protein X-ray facility, spectrophotometers, fluorometers, a protein sequencer, and an amino acid analyzer.

The center sponsors a weekly Photosynthesis Seminar Series and brings in visiting scientists from around the world to carry out collaborative research. Undergraduate, graduate, and postdoctoral training programs in the Department of Chemistry and Biochemistry and the Department of Plant Biology are central components of the activities of the center.

For more information, visit the center in PS D207, or call 480 965 1963.

**CRESMET.** See "Center for Research on Education in Science, Mathematics, Engineering, and Technology," page 30

**Exercise and Sport Research Institute.** The Exercise and Sport Research Institute (ESRI) is an interdisciplinary research unit located in the Department of Exercise Science and Physical Education and serves, in part, as a research facility for the interdisciplinary doctoral program in exercise science. Faculty and graduate students within ESRI investigate a wide range of topics concerning physical activity, including different age cohorts, levels of health, levels of ability and fitness; and levels and types of training, and physical and emotional stresses, nutrition, and genetic backgrounds. Where applicable these aspects are studied using an interdisciplinary approach. ESRI is affiliated with a number of clinical and research institutions in the Phoenix area.

ESRI houses numerous specialized research laboratories. *Biomechanics* applies the laws of mechanics to the study of human movement. Current research examines kinematic and kinetic determinants of locomotion patterns in walking, running, cycling and swimming, neuromusculoskeletal modeling and computer simulation of locomotion in clinical and sport applications; ergonomics; and mechanisms

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underlying upper extremity repetitive strain injuries.

*Exercise physiology* is the study of physiologic systems (cardiovascular, respiratory, muscular, endocrine, metabolic) under conditions of stress, particularly exercise stress. Both acute exercise responses and chronic adaptations resulting from exercise training are considered in relation to health and performance and are investigated in several specialized labs. The *Exercise Biochemistry Lab* examines subcellular systems involved in the provision and regulation of energy transfer during exercise. The *Exercise Endocrinology Lab* studies interrelationships of exercise and training with stress, hormones, neurotransmitters, and the immune system. Research conducted in the *Applied Exercise Physiology Lab* is aimed at better understanding how physical activity and exercise influence the health, fitness, and athletic performance of able bodied and physically challenged individuals. Research in the *Motor Control Lab* investigates how movement is regulated and controlled via the nervous system in normal and pathological populations. Special emphases include motor deficits attributed to basal ganglia dysfunction and upper extremity coordination, particularly finger and hand posture, in reaching and prehensile movements. *Motor development* studies how human movement is generated and evolves throughout the lifespan. Current research focuses on learning and development of bimanual coordination. Timing and coordination of perceptual-motor skills are measured in normal developing children, persons with Down syndrome, and adults to investigate cerebral asymmetries and specificity of learning. The *Sport and Exercise Psychology Lab* examines the relationship between psychological constructs and physical activity, and the influence of participation in physical activity on psychological phenomena. Current research is designed to examine the influence of physical activity, fitness, and particular sport practices on psychophysiological mechanisms and cognitive functioning; the effect of psychological skills for performance enhancement; motivational aspects of physical activity across the lifespan; and the effects of exercise on mental health.

For more information, visit ESRI in PEBE 159, or call 480 965-7906.

**Hispanic Research Center.** The Hispanic Research Center (HRC) at ASU is an interdisciplinary unit, dedicated to research and creative activities, that is university wide but administered through the College of Liberal Arts and Sciences. The HRC performs basic and applied research on a broad range of topics related to Hispanic populations, disseminates research findings to the academic community and the public, engages in creative activities and makes them available generally, and provides public service in areas of importance to Hispanics.

Faculty, staff, and advanced graduate students organize into working groups to develop a broad range of specific projects and lines of inquiry within the general categories of Hispanic entrepreneurship, science and technology, information and data compilation and dissemination, the Hispanic polity, and the arts. Ongoing activities of the HRC, primarily funded by external grants, include the Arizona Hispanic Business Survey, the *Bilingual Review Press*, the

Community Art and Research Outreach (CARO), Chicana and Chicano Space: Art Education Web site, Digital Divide Solutions Project, Project 1000, and the Western Alliance to Expand Student Opportunities.

CARO sponsors creative activities and research in collaboration with community based organizations and ASU faculty.

For more information, visit the HRC in CFS 104, call 480 965 3990, or access the HRC Web site at [www.asu.edu/clas/hrc](http://www.asu.edu/clas/hrc).

**Institute of Human Origins.** The Institute of Human Origins (IHO), founded in 1981 by Donald Johanson, became part of the College of Liberal Arts and Sciences in 1997. IHO is a multidisciplinary research organization dedicated to the recovery and analysis of the fossil evidence for human evolution and the establishment of a chronological framework for human evolutionary events. IHO's scientists carry out field research at sites in Africa, the Middle East, and Asia. IHO houses the largest collection of *Australopithecus afarensis* casts (including "Lucy," a 3.2 million-year old human ancestor) in the world as well as an extensive collection of other fossil hominid casts. IHO's library contains more than 3,000 volumes, numerous journals, video tapes, audiotapes, and slides related to human evolution and fossil sites. IHO produces periodic newsletters, offers lecture series, conducts tours and workshops, and supports numerous informal science education outreach projects.

For more information, visit IHO in SS 103, call 480/727-6580, or access the IHO Web site at [www.asu.edu/clas/iho](http://www.asu.edu/clas/iho).

**Joan and David Lincoln Center for Applied Ethics.** The Joan and David Lincoln Center for Applied Ethics (LCAE) is a university wide center for applied ethics that is administratively housed in the College of Liberal Arts and Sciences. Its mission is

1. to develop and coordinate a strong focus on theoretical and applied ethics across intellectual disciplines and professional programs within the university,
2. to support teaching and creative research in ethics, and
3. to foster collaboration between the university and its varied publics to address major ethical challenges facing contemporary society.

For more information, visit LCAE in AG 355, call 480 727 7691, or access the Web site at [www.asu.edu/clas/lincolncenter](http://www.asu.edu/clas/lincolncenter).

**Latin American Studies Center.** Arizona maintains an ever growing interest in Latin America that draws upon an extensive experience of historical and geographical ties. The Latin American Studies Center is the focal point for these interests at ASU. Through its program, the center serves the university community and maintains strong ties with various Latin American organizations in the state and the nation. Principal activities are coordinating Latin American studies at the undergraduate and graduate levels; sponsoring student exchange programs; organizing events featuring Latin American arts and culture, numerous seminars, and research conferences, publishing a wide range of

professional materials; and undertaking and facilitating research about the region.

The center administers student exchange programs with the Catholic University of Bolivia and three Mexican universities—the Autonomous University of Guadalajara, the Autonomous University of Nuevo Leon, and the University of Sonora. Each spring several ASU students are selected to attend courses at the Latin American universities while Bolivian and Mexican students attend ASU. The center also has an exchange agreement with the Pontificia Universidad Catolica del Ecuador for faculty and students as well as summer programs in Quito, Ecuador and Ensenada, Mexico.

The center is a member of the American Modern Language Association, Consortium of U.S. Research Programs for Mexico, Consortium for Latin American Studies Association, Pacific Coast Council on Latin American Studies, Rocky Mountain Council for Latin American Studies, Consortium of Latin American Studies Programs, and Conference on Latin American History.

The center directly encourages research, not only through its research conferences, but also through close coordination with the Latin American collection of Hayden Library and networking with Latin American universities.

For more information, visit the center in SS 213, or call 480 965 5127.

### College of Public Programs

**Center for Nonprofit Leadership and Management.** The Center for Nonprofit Leadership and Management (CNLM) promotes the understanding and improved practice of nonprofit organizations. The center coordinates a nonprofit sector research program, facilitates educational offerings in nonprofit studies, serves as a convener on topical issues, and provides selected technical assistance and information services. The center facilitates relationships among students, faculty, and community organizations across a range of research and outreach activities. In addition, the center convenes leaders and managers from the nonprofit, business, and government sectors on topical issues pertinent to building nonprofit capacity in the region. The center supports the activities of three complementary nonprofit leadership and management education programs: the ASU American Humanics Program undergraduate certificate, a postbaccalaureate program (graduate certificate), and a noncredit program (extended education certificate). For more information, call 480 965 0607, or access the Web site at [www.asu.edu/copp/nonprofit](http://www.asu.edu/copp/nonprofit).

**Center for Urban Inquiry.** The Center for Urban Inquiry focuses on civic involvement. The center's mission is to examine the unique features of the new urban West in the United States, particularly intersections of growth and development with citizen activism and community building. By harnessing the unique resources of the university, the center engages in partnerships with urban citizens, including youths, to increase awareness, promote inclusion, and address needs. Center programs include seed grants to students working in teams in pursuit of urban research and community service; service learning that involves students in community building; technical assistance to neighbor-

hood organizations, schools, and hospitals; and the production of works that appeal broadly to urban audiences, including performances, exhibits, and videos. For more information, call 480 965 9216, or access the center's Web site at [www.asu.edu/copp/urban](http://www.asu.edu/copp/urban).

**Morrison Institute for Public Policy.** Established in 1981 by the Morrison family of Gilbert, Arizona, as a unit within the School of Public Affairs, the institute conducts research on public policy matters, informs policy makers and the public about issues of importance, and advises leaders on choices and actions. Morrison Institute offers a variety of services to public and private sector clients and pursues its own research agenda. Services include policy research, program evaluation, and public outreach. The institute's interests, research, and publications span such areas as education, urban growth, human services, workforce development, economic development, and arts and culture.

For more information, call 480 965 4525, access the institute's Web site at [www.asu.edu/copp/morrison](http://www.asu.edu/copp/morrison), or write

MORRISON INSTITUTE FOR PUBLIC POLICY  
ARIZONA STATE UNIVERSITY  
PO BOX 874405  
TEMPE AZ 85287 4405

### Herberger College of Fine Arts

**Institute for Studies in the Arts.** The Institute for Studies in the Arts (ISA) in the Herberger College of Fine Arts serves as a research laboratory for the development of new art forms, new ideas and concepts, and innovative technologies for artistic expression; a network for communication among creative scholars both within and outside the arts; and a resource base for the documentation, evaluation, and dissemination of research in the arts. ISA addresses the needs of a variety of populations through technical and monetary support and sponsorship for research projects, performances, exhibitions, and symposia.

ISA facilities include an experimental media performance space with an adjacent technology prototyping and applications studio in Drama City; the "Intelligent Stage," an interactive and teleperformance studio with state-of-the-art digital audio and video production and postproduction facilities in Matthews Center; a Technology Development Studio for the development of prototype technologies and their application to aesthetic research; and comprehensive archives that document the history of research initiatives supported by the ISA.

ISA is open to a wide range of proposals from faculty, graduate and undergraduate students, and visiting artists, provided such proposals address the ISA mission of experimentation and innovation in the arts. For more information, visit ISA in MCENT 224, call 480 965 9438, or access the ISA Web site at [herbergercollege.asu.edu/isa](http://herbergercollege.asu.edu/isa)

### Vice Provost for Research

**Center for Environmental Studies.** Established in 1974, the primary mission of the Center for Environmental Studies is to facilitate collaborations among faculty researchers and to aid decision making about environmental issues. Through its collaborations, both with ASU faculty and

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partners from government, business, and the educational community, the center advances the identification of key local and global environmental issues and collects reliable information to be used by scholars, policy makers, and the general public. For more information, access the CES Web site at [www.asu.edu/ces](http://www.asu.edu/ces).

The center is also home to the Central Arizona–Phoenix Long-Term Ecological Research (CAP LTER) project, one of only two urban sites in the NSF-funded LTER network. The CAP LTER project focuses on an arid-land ecosystem profoundly influenced, even defined, by the presence and activities of humans, and involves more than 50 associated faculty from biology, ecology, engineering, geography, geology, sociology, urban planning, and anthropology. For more information, access the CAP LTER Web site at [caplter.asu.edu](http://caplter.asu.edu).

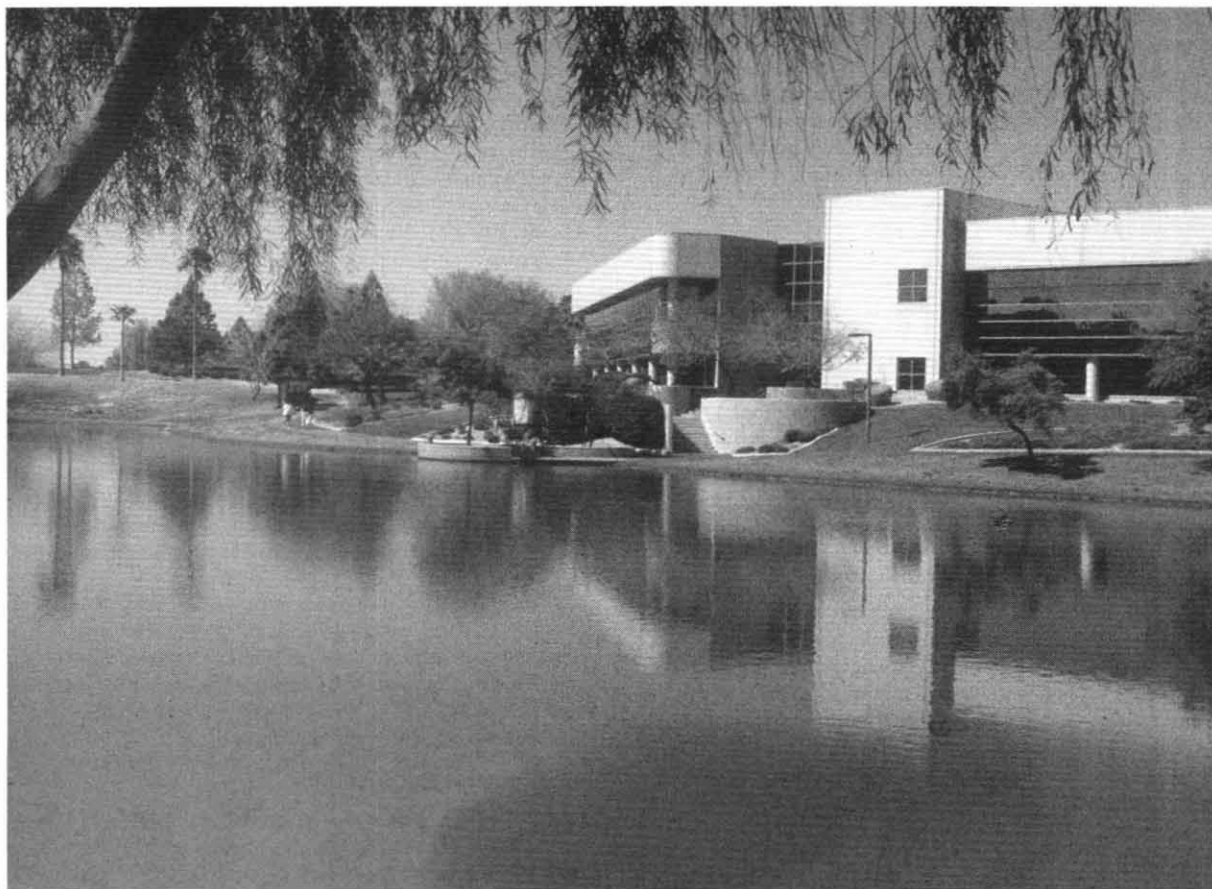
The center administers an NSF-funded Integrative Graduate Education and Research Training (IGERT) grant to develop a multidisciplinary program in urban ecology. The program's research component engages students in wide-ranging and multidisciplinary investigations into the ecology of cities, with the CAP LTER project providing the research infrastructure. For more information, access the IGERT Web site at [www.asu.edu/ces/igert.htm](http://www.asu.edu/ces/igert.htm).

The center also facilitates applied environmental research projects undertaken by the Southwest Center for Environmental Research and Policy (SCERP), a consortium of five U.S. and four Mexican universities. SCERP develops a research agenda for the study of air and water quality, hazardous waste problems, environmental health issues, and growth management questions in the border region. For more information, access the Web site at [www.scerp.org](http://www.scerp.org).

For more general information about the center, contact the director, Center for Environmental Studies, Tempe Center (located at the southeast corner of University and Mill), 480/965-2975, or access the center's Web site at [www.asu.edu/ces](http://www.asu.edu/ces).

### ASU East

**Sustainable Technologies, Agribusiness, and Resources Center.** The focus of the Sustainable Technologies, Agribusiness, and Resources (STAR) Center is to bring together multidisciplinary researchers whose mission is to study sustainable processes and systems, whether natural or human designed, that will be efficient and less consumptive and will promote conservation of the earth. For more information, call 480/727-1240, or access the STAR Center Web site at [www.east.asu.edu/research/star](http://www.east.asu.edu/research/star).



ASU Research Park

Tim Trumble photo



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# Student Services

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The university is committed to the belief that an education involves more than attending class. While the assimilation of information is a central part of the university experience, learning about others, about independence and leadership, and about living in a complex society are equally important. Student Affairs' services and developmental programs reflect this philosophy.

## UNDERGRADUATE ADMISSIONS

For many undergraduates, the first introduction to ASU is through the recruitment and admission programs of Undergraduate Admissions. Personal contact with prospective students through high school and community college visits and through student visits on campus are some of the approaches that provide information about the academic programs and support services available at ASU. A primary goal of Undergraduate Admissions is to identify, inform, motivate, recruit, and enroll students from ethnic groups underrepresented at ASU. Orientation programs ease the students' and parents' transition to the ASU campus. Undergraduate Admissions also coordinates and supports the ASU Parents Association. For more information about undergraduate admissions, call 480 965 7788, or visit the Web site at [www.asu.edu/admissions](http://www.asu.edu/admissions). For more information about the ASU Parents Association, call 480 965 2602.

## STUDENT FINANCIAL ASSISTANCE

Pursuing a college education is an important life decision as well as a major financial investment. The cost of a college education can be a major concern for many students and their families. The ASU Student Financial Assistance Office is committed to helping students, within the limits of available funds, meet college costs. Options range from merit scholarships to financial aid awards, grants, loans, and employment.

Approximately two-thirds of ASU students rely on some form of financial assistance to meet their educational expenses. For more information, call 480 965 3355, or visit the Web site at [www.asu.edu/fa](http://www.asu.edu/fa).

## REGISTRAR

Management of the registration system and maintenance of academic records are the primary responsibilities of the Office of the Registrar. Registration is available through SunDial, the ASU touch-tone registration and fee payment system, or in person at the UASB Registrar site, OASIS General Information site at ASU East, or Registration Services at ASU West. The Student Information System stores academic records and improves the quality of data used in academic advising. The Office of the Registrar coordinates applications for graduation and undergraduate readmission, course changes and scheduling, transcript services, applications for residency, and verification of enrollment. For more

information, call 480 965 4747, or visit the Web site at [www.asu.edu/registrar](http://www.asu.edu/registrar).

## Veterans Services

This office offers complete educational services for U.S. veterans and their eligible dependents. Counseling about admissions, registration, and veterans benefits is available. Veterans programs provide service by advising all interested veterans and dependents about educational benefits and their optimum use. Students must apply each semester to receive veterans benefits. The program also assists veteran students in obtaining suitable paid tutors, when needed, using their federal benefits. Students receiving veterans educational benefits are not eligible to receive pay for audited courses. Veterans must achieve satisfactory GPAs and semester hours progress toward their academic programs for continued educational benefits, as stated under "Satisfactory Academic Progress," page 76. The university must report this progress to the Department of Veterans Affairs each term. Failure to maintain the minimum GPA established by the university and/or the veteran's college may result in academic probation or disqualification. Although veterans may be eligible for educational benefits while on academic probation, benefits could be affected by a continuing probation status. The Veterans Services Section is located in SSV 148. For more information, call 480 965 723.

## RESIDENTIAL LIFE

Living in one of the ASU residence halls provides students the opportunity to make the most of their college experience. Special residential communities for freshmen honors students, and students in particular academic areas offer opportunities and activities that enrich the educational experience.

The Freshman Year Experience program (see "Freshman Year Experience," page 40) provides a unique environment of classrooms, live-in tutors, academic advisors, and other support services designed to help freshmen develop skills for success.

Because the demand for campus housing tends to exceed space availability in the residence halls, students are encouraged to apply for housing early (before March 1, 2002) for the best chance to live on campus for fall semester 2002. Housing is not guaranteed. Students must be admitted to ASU before applying for housing. Requests for specially modified rooms for students with disabilities should be noted on the application.

Students will receive residence hall application information with their admission certificate. For more information, visit the Web site at [www.asu.edu/reslife](http://www.asu.edu/reslife), call 480 965 3515, or write to

## STUDENT SERVICES

RESIDENTIAL LIFE  
ARIZONA STATE UNIVERSITY  
PO BOX 870212  
TEMPE AZ 85287 0212

Information about ASU Main voluntary meal plans may be obtained by calling 480 965 3464 or writing

CAMPUS DINNER  
ARIZONA STATE UNIVERSITY  
PO BOX 871101  
TEMPE AZ 85287 1101

### ASU East Housing

ASU East housing includes single student residence halls equipped with kitchens, two to five bedroom houses, and a freshman residence hall that participates in ASU East's Freshman Year Experience program. For more information, see "Williams Campus Housing and Residential Life," page 626 call 480 727 1700, or access the Web site at [www.east.asu.edu/studentlife/housing](http://www.east.asu.edu/studentlife/housing)

## STUDENT DEVELOPMENT

ASU students experience success through active involvement in learning and within their community. Student Development enhances student learning through academic support services and programs and encourages student involvement in the community through participation in cocurricular programs, clubs, employment, leadership opportunities, organizations, and service.

### Freshman Year Experience

A student's freshman year is a time to learn new ideas, meet new people, and grow as an educated citizen ready to contribute to the community. The Freshman Year Experience (FYE) helps freshmen achieve academic success by coordinating services and programs in settings designed just for freshmen. Services provided include freshman-level classes and academic advisors in the halls, computer labs, live-in tutors with tutoring offered five nights a week, staff trained to support students in achieving academic success, and special floors for freshmen majoring in Engineering; Architecture and Environmental Design; Business; Education; and Broadcasting, Communication, and Journalism within the College of Public Programs.

ASU has designated several residence halls as FYE service sites. Manzanita, Mariposa, McClintock, Palo Verde complex, Sahuaro, and Sonora. A freshman can choose to live in one of the halls and have direct access to FYE programs or opt to live off campus or in another residence hall and still use FYE services. For more information, call 480 965 1512, or access the Web site at [www.asu.edu/vpsa/fye](http://www.asu.edu/vpsa/fye).

### Learning Resource Center

The Learning Resource Center (LRC) provides academic support to ASU students through tutoring in most disciplines, Supplemental Instruction (SI), peer coaching, academic success workshops, and computer-assisted instruction. The LRC provides scheduled small group tutoring to ASU students in all grade levels in approximately 100 courses, including math, languages, business, physics, chemistry, and computer science. SI provides students in traditionally challenging courses with the opportunity to

meet with an SI leader, a student who has successfully completed the course, for collaborative study skills sessions that focus on the course material.

The peer coaching program assists ASU students on or at risk of academic probation by providing a structured learning environment that focuses on helping students develop time and stress management skills. The academic success workshops offer the opportunity to develop general academic skills and college adjustment survival skills such as coping with test anxiety, organizational skills, and critical thinking. Computer-assisted instruction is open to all ASU students, staff, and faculty, and addresses learning software applications, Internet use and research, and e-mail.

For more information, call the LRC at 480 965 6254, or access the Web site at [www.asu.edu/vpsa/lrc](http://www.asu.edu/vpsa/lrc).

### Co-Curricular Programs

Co-Curricular Programs (CCP) works to enhance the ASU undergraduate educational experience by maximizing faculty and student interaction outside the traditional classroom setting. This is accomplished through the following program components:

**Campus Wide Programming.** CCP brings students and faculty together for a variety of events that facilitate informal dialogue, lead to the exchange of ideas, and provide out-of-classroom learning experiences. The annual Last Lecture Series offers students the opportunity to recognize and honor excellent teaching by nominating outstanding faculty to present a lecture to the ASU community as though this would be their "last lecture."

**Residential Programming.** CCP supports Resident Assistants in the development of programs that promote learning outside the classroom. Programs like the Classic Film Colloquia bring students and faculty together to explore ideas and topics that supplement and enhance their classroom learning.

**Seminar Courses.** CCP coordinates a number of small group seminar courses each semester, entitled CED 394: Special Topics in Leadership. These one-semester hour, discussion format courses bring together a faculty or staff member and up to 12 students to discuss and learn about a specific interest or topic. CED 394 courses are open to students of all academic levels and majors.

**Faculty Fellows.** Faculty take an active role in the planning and development of CCP programs. Faculty Fellows serve as liaisons with their academic departments and their colleagues, further enhancing the learning experiences of students outside the traditional classroom.

**Student Advisory Board.** Students work collaboratively with Faculty Fellows and CCP staff to develop and promote programs for the campus community.

For more information on upcoming programs or seminar courses, call CCP at 480 965 9600, or access the Web site at [www.asu.edu/vpsa/partnerships](http://www.asu.edu/vpsa/partnerships).

### Child and Family Services

Child and Family Services (CFS) provides resource and referral services to students, faculty, and staff. Information about the Campus Children's Center (480 921 2737), Child

Development Laboratory (480 965 726 ), Child Study Laboratory (480 965 5320 ), and the College of Education Pre-school (480 965 2510 ) may be obtained at CFS or by calling the programs directly. CFS maintains a child care referral database and coordinates workshops and discussion groups on child and elder care issues. Educational materials and listings of additional on and off campus activities, programs, and services for children and their families are available at the CFS office, MU 14C.

For more information, call 480 965 9515, or visit the Web site at [www.asu.edu/vpsa/family](http://www.asu.edu/vpsa/family).

For specific information about child care at ASU East, call 480/727 1400.

### **Sun Devil Involvement Center**

Located on the third floor of the Memorial Union, the Sun Devil Involvement Center provides opportunities for student involvement through clubs, coalitions, community service, fraternities and sororities, leadership, programming, and student government. For more information, call 480 965 2255 or visit the Web site at [www.asu.edu/mu/sdic.html](http://www.asu.edu/mu/sdic.html).

### **Student Organization Resource Center**

The Student Organization Resource Center provides opportunities for students to get involved with established campus organizations and helps students start new organizations. The center maintains a list of all registered groups, assists with the coordination of major events, and provides a resource desk where students can access information on student activities and leadership opportunities. Members of REACH, a student paraprofessional organization, staff an information desk and are available for outreach sessions. For more information, call 480 965 2255, or visit the Web site at [www.asu.edu/clubs](http://www.asu.edu/clubs).

### **Student Leadership Programs**

Student Leadership Programs serves as a resource to students interested in leadership development. Resources include a leadership library and information about the ASU Leadership Development Model and other campus, local, and national leadership programs. Staff are available for presentations; workshop facilitation; and advising, guidance, and coordination of efforts in leadership development. For more information, call 480 965 2255, or visit the Web site at [www.asu.edu/mu/slp](http://www.asu.edu/mu/slp).

**Leadership Development Classes.** A series of leadership development classes are offered to provide students an opportunity through class activities, discussions, and experiences to understand leadership theories and models, to develop leadership skills, and to apply leadership knowledge through service and internships. CED 294 ST: Foundations of Leadership focuses on the basic principles of leadership and current writing on the topic, particularly on college campuses. A capstone course, CED 484: Leadership Internship, applies leadership skills to a variety of experiential learning opportunities. For more information, access the Web site at [www.asu.edu/vpsa/slp](http://www.asu.edu/vpsa/slp) Classes.

### **Greek Life**

Involvement in a fraternity or sorority can be one of the most rewarding aspects of a student's college experience.

Fraternities and sororities provide opportunities for leadership development, academic success, campus involvement, community service, social interaction, brotherhood/sisterhood, and intramural participation. Nineteen fraternities are governed by the Interfraternity Council and twelve sororities hold memberships in the Panhellenic Council. The National Panhellenic Council offers seven predominantly African American fraternities and sororities for involvement with community service, cultural learning, and a deep sense of tradition. The Hispanic Greek Council, three fraternities and two sororities, offers Hispanic students an opportunity to work on service projects, give back to the Latina/Latino culture, and network within the Hispanic community. In addition to the benefits of lifelong membership, many of the fraternities and sororities have chapter houses or residence hall floors that provide a rewarding living/learning option for their members. For more information, call Greek Life at 480 965 2255, or visit the Web site at [www.asu.edu/mu/greeklife](http://www.asu.edu/mu/greeklife).

### **Community Service Program**

The Community Service Program strives to engage students, faculty, and staff in meaningful cocurricular service. Through the integration of academic studies with public service, the campus community is provided with intentional avenues to serve the societal needs of Valley communities. By engaging students in worthwhile service while promoting a lifelong commitment to citizenship and social justice, the Community Service Program not only augments curricular learning but also affords students the key opportunity to turn learning into social action.

For more information, visit the Community Service Program, located at the Sun Devil Involvement Center on the third floor of the Memorial Union, access the Web site at [www.asu.edu/mu/community](http://www.asu.edu/mu/community), or call 480 965 2255.

**Short-Term Service Projects.** The Community Service Program collaborates with Valley-wide agencies and campus entities to provide meaningful episodic service events such as Alternative Spring Break, the Fall Service Plunge, and the Martin Luther King Jr. Day of Service. Current information can be found in updated listings in the office and on the Web site on a weekly basis.

**Cocurricular Service Learning Opportunity Clearinghouse.** A detailed clearinghouse of information from more than 400 social service and nonprofit agencies across the Valley of the Sun offers information about internships, post-graduation opportunities, and long-term service. Students can use this resource to design a service experience that complements their academic, personal, and professional goals.

**Cocurricular Service Learning in the Classroom.** The Community Service Program works with faculty and instructors on campus to successfully integrate cocurricular service learning into the classroom setting. Information regarding courses that integrate cocurricular service learning is available for students, and the resources are open to students as they seek to meet course requirements.

**Workshops and Skill-Building.** Throughout the year, the Community Service Program offers workshops and

## STUDENT SERVICES

presentations around service related topics to develop strong campus leaders and exceptional civic leaders for the future. Topics may include servant leadership, volunteer management, event planning, and reflection. Workshop series information is available in the office.

### Programming and Visual Arts

Programming and Visual Arts (PVA) connects students with opportunities to participate in the visual arts and programming on campus. Programs supported by PVA include a student run film committee, weekly comedy shows *Barren Mind Improv* and *Farce Side Comedy Hour*, and an annual silent art auction which showcases emerging ASU artists.

PVA also maintains the Memorial Union's Art Collection. Located throughout the Memorial Union, this permanent collection is comprised of paintings, fine art prints, photographs, sculptures, and tapestries. The collection includes works of faculty, alumni, and students from the ASU School of Art as well as other recognized artists. For more information, call 480 965 2255.

## MEMORIAL UNION

The Memorial Union (MU) serves as the campus community center for students, faculty, staff, and guests of ASU. Opportunities for student involvement are abundant with programs and services that enhance the ASU experience. Students can connect through activities, clubs, community service organizations, student government, the arts, and volunteer programs.

A variety of student employment opportunities are available at the MU. Some of the student positions include: administrative clerk assistant, building manager, computer lab attendant, event assistance, information desk associate, and Sparky's Den associate. The MU offers flexible work schedules to accommodate class schedules. Promotion from within the various work groups is encouraged.

Some of the building's features include an art gallery; computer lab and workroom; multi-purpose meeting rooms; study and group work areas; and Sparky's Den—a recreation center with bowling, billiards, and a video arcade.

Services provided in the MU include banking facilities and several ATMs, a card and gift shop, catering, film development, food venues, a general store, a hair salon, a music store, a post office, and a travel agency. For more information about any of these services or to explore employment or volunteerism, call the MU Information Desk at 480 965 5726, or visit the Web site at [www.asu.edu/mu](http://www.asu.edu/mu).

## STUDENT LIFE

Student Life strives to enhance student learning and student achievement by fostering a positive inclusive campus environment; providing services to meet the needs of a diverse student body; and empowering students to advocate for their needs and interests by developing leadership and life skills. Opportunities for leadership and community involvement help students prepare for the roles as responsible citizens. Students learn and sharpen their leadership skills through their involvement in student activities, work shops, community service, and student government. For

more information, access the Web site at [www.asu.edu/studentlife](http://www.asu.edu/studentlife).

**Adult Re-Entry Program.** The Adult Re-Entry Program offers a variety of services to assist students age 25 and older in reaching their academic goals, such as pre-enrollment assistance, orientation, peer mentoring, resource and referral information, support groups, and scholarships. The Adult Re-Entry Center in MU 14 provides a welcoming environment for individual or group study. For more information, call 480 965 2252, or visit the Web site at [www.asu.edu/studentlife/reentry](http://www.asu.edu/studentlife/reentry).

### Associated Students of Arizona State University

(ASASU). ASASU is the student government of the university and the official representative of the student body in matters of university governance and budgeting. Through paid, volunteer, or elected positions, students can become active, contributing members of ASASU. Students can select from a wide variety of activities and services, some of which include College Councils, Student Senate, Student Legal Assistance, Safety Escort Service, Co-op Bike Repair Service, Environmental Issues, Internships, and Homecoming and spring event committees. For more information, call 480 965 3161 or visit the Web site at [www.asu.edu/asasu](http://www.asu.edu/asasu).

**Danforth Chapel.** Built in 1945 as a multi-faith chapel and retreat for the university community to use for prayer, meditation, weddings, memorial services, baptisms, Bible study groups, and worship, Danforth Chapel continues to provide opportunities for those functions. The chapel is located on Cady Mall between the Memorial Union and Hayden Library. For more information, call 480 965 3570, or visit the Web site at [www.asu.edu/studentlife/danforth](http://www.asu.edu/studentlife/danforth).

**Disability Resources for Students.** Disability Resources for Students (DRS) facilitates equal access to educational and cocurricular programs, campus activities, career exploration, and employment opportunities for qualified ASU students with disabilities, ensuring they are provided with mandated reasonable and effective accommodations. Contingent upon refunding, a U.S. Department of Education TRIO Student Support Services Grant also allows DRS to incorporate a unique academic enhancement model into the disability support services program for 270 selected students with disabilities who meet TRIO eligibility requirements. Disability documentation is required and information regarding disabilities is confidential. DRS is located on the first floor of Matthews Center. For more information, call 480 965 1234 (voice) or 480 965 9000 (TTY), fax 480 965 0441, or visit the Web site at [www.asu.edu/drs](http://www.asu.edu/drs).

**Educational Opportunity Center.** This community outreach service focuses on first-generation low-income individuals. The center offers vocational testing and guidance as well as assistance in application for admission, scholarships, and financial assistance at a postsecondary institution suited to a particular individual's needs. Services are free, partially funded by the U.S. Department of Education. The center has a main office at 1100 East Apache Blvd., Suite 118 in Tempe and satellite offices around Maricopa County. For more information, call 480 594 8451, or visit the Web site at [www.asu.edu/studentlife/eoc](http://www.asu.edu/studentlife/eoc).

**International Student Office.** The International Student Office (ISO) is responsible for the administration and coordination of the ASU international student program. The ISO's principal responsibilities and services include administrative support, counseling, initial orientation, visa administration, and campus and community activities which promote international awareness and enrich the educational experiences of students. The ISO is located in SSV 265. For more information, call 480 965 7451, or visit the Web site at [www.asu.edu/studentlife/iso](http://www.asu.edu/studentlife/iso).

**Multicultural Student Center.** The Multicultural Student Center (MSC) provides a central location for multicultural students to receive a number of services designed to assist them in pursuing academic success. Staff actively seek to recruit and retain multicultural students through a variety of support services and programs. University success courses, one-on-one guidance, consultation, and referral are offered to address the academic, personal, and cultural needs of multicultural students. The Hispanic Mother/Daughter Program and the Native American Achievement Program are specialized programs within the MSC designed to increase the persistence and graduation rates of students. Summer programs such as the Asian Lead Academy, the Native American Summer Institute, the Academic Enrichment Program, and Sun Devil Welcome provide outreach to the community and assist students with their transition and adjustment to the university. The student coalitions, as well as other multicultural student organizations, provide cultural programming and academic support to African American, American Indian, Asian American, Hispanic/Latino, gay and lesbian, and women students. The MSC office is located in SSV 394. For more information, call 480 965-6060, or visit the Web site at [www.asu.edu/studentlife/msc](http://www.asu.edu/studentlife/msc).

**Student Advocacy and Assistance.** Student Advocacy and Assistance guides students in resolving educational, personal, and other campus impediments toward successful completion of their academic goals. Student Advocacy and Assistance links students with appropriate university and community resources, agencies, and individuals; collaborates with faculty and staff in the best interest of the students; and follows through to bring efficient closure to student concerns. Student Advocacy and Assistance is located in the Office of Student Life, SSV 263. For more information, call 480 965 6547, or visit the Web site at [www.asu.edu/studentlife/advocacy](http://www.asu.edu/studentlife/advocacy).

**Student Judicial Affairs.** Student Judicial Affairs oversees the review of conduct issues, involving both students and student organizations, as set forth by the Arizona Board of Regents *Student Code of Conduct*. This code is designed to balance the rights and needs of the individual with the responsibility of the individual to meet the needs of the community. Outreach and education are provided to students, faculty, and staff in areas such as student rights and responsibilities, campus and community standards, and university policies. Referrals for student conduct issues are accepted from faculty, staff, students, or observers. The Student Judicial Affairs designee reviews all referrals. Students who are found to have violated the *Student Code of Conduct* are subject to appropriate sanctions for student misconduct.

Student Judicial Affairs is located in the Office of Student Life, SSV 263. For more information, call 480 965 6547, or visit the Web site at [www.asu.edu/studentlife/judicial](http://www.asu.edu/studentlife/judicial).

**Student Legal Assistance.** Student Legal Assistance counsels and advises students regarding their legal rights and responsibilities. This service is offered free of charge to currently enrolled ASU students. Notary services are also available. Typical consultation topics include auto related issues, criminal matters, debt, domestic relations, wills, towing and traffic violations, landlord tenant issues, and miscellaneous issues. Student Legal Assistance is located in the Memorial Union, Room 329. For more information, call 480 965 6307, or visit the Web site at [www.asu.edu/studentlife/legal](http://www.asu.edu/studentlife/legal).

**Upward Bound Program.** Upward Bound is a college preparatory program designed to increase the academic skills and motivational levels of participants (low income, potential first generation college students) to encourage their completion of high school, as well as enrollment in and graduation from postsecondary institutions. The year round program includes summer residential components funded by the U.S. Department of Education. The Upward Bound Program office is located in SSV 276. For more information, call 480 965 6483, or visit the Web site at [www.asu.edu/studentprgrms/orgs/ub](http://www.asu.edu/studentprgrms/orgs/ub).

**Veterans Upward Bound.** This program is designed for low income, first generation veterans who wish to pursue postsecondary education but whose life experiences did not adequately prepare them for the educational requirements of today. College preparation instruction in writing, reading, mathematics, general science, study skills, and computer literacy are provided to suit each veteran's individual needs. Veterans lacking a high school diploma can also prepare for obtaining their General Education Development (GED) while participating in Veterans Upward Bound. Interest inventory assessments and career advising are also available. All services are free, funded by the U.S. Department of Education. The Veterans Upward Bound office is located at 1000 East Apache Blvd., Suite 106, in Tempe. For more information, call 480 965 3944, or visit the Web site at [www.asu.edu/studentlife/vub](http://www.asu.edu/studentlife/vub).

## COUNSELING AND CONSULTATION

Counseling and Consultation offers a range of confidential counseling and psychological services for ASU students. Staff members are available to discuss any important personal concern a student may be facing, particularly issues related to the adjustment to university life. Professional help in the following areas is available: psychological issues, personal concerns, interpersonal issues, and crisis intervention. Counseling and Consultation staff members have a strong commitment to meeting the needs of students of color and nontraditional students. The Counseling Center staff consists of both male and female mental health professionals, including psychologists, counselors, psychiatric providers, and social workers. Students are initially seen by an individual counselor for assessment. Continuing services in the form of individual, couples, or group meetings are

## STUDENT SERVICES

then offered on a short-term basis depending upon the student's need and staff availability.

Counseling and Consultation offers counseling groups on topics such as women's and men's issues, eating disorders, substance abuse, stress management, multicultural diversity issues, and interpersonal relationships. Other services available to the ASU community include consultation and outreach programming. Career interest testing is offered to both students and non students.

Counseling and Consultation provides training for psychologists through its internship training program for doctoral trainees in clinical and counseling psychology. This program is accredited by the American Psychological Association. In addition, counseling practicum training is provided to master's and doctoral students enrolled in ASU graduate programs.

Confidentiality in counseling is of utmost importance. Information about a student is not released without that student's written permission, except in the case of imminent danger to self or others, child adult abuse, court order, or where otherwise required by law. Notations of counseling are not a part of a student's academic record.

ASU students may schedule an initial counseling appointment either by phone (480 965 6146 or 480 965 4726) or in person. There is no cost for the initial personal consultation. Students may receive up to three counseling sessions for no fee. Fees are charged for additional sessions although fee reductions and waivers are available. Office hours are 8 A.M. to 5 P.M. Monday through Friday. Counseling and Consultation is located at two sites on campus, SSV 334 and SHW A168.

For information about student counseling at ASU East, call 480/727 1255.

**Testing Support Services.** Testing Support Services (TSS) offers courses to help students prepare for the following graduate entrance exams: the Graduate Record Exam (GRE), the Graduate Management Admissions Test (GMAT), and the Law School Admission Test (LSAT). Students may obtain information about test preparation workshops by phone (480 965-6777), in person, or from the TSS Web site at [www.asu.edu/vpsa/tss](http://www.asu.edu/vpsa/tss). The TSS office is located in SSV 382 and is open 9 A.M. to 6 P.M. Monday through Thursday and 9 A.M. to 5 P.M. Friday.

## STUDENT HEALTH AND WELLNESS CENTER

**Services.** The Student Health and Wellness Center offers fully accredited outpatient health care to all students enrolled at ASU. The professional staff, consisting of physicians, nurse practitioners, registered nurses, dietitians, and health educators, has special interest and training in college health care. Consultant physicians in dermatology, orthopaedics, and other specialties are on site and are available by referral from a member of the Student Health and Wellness Center professional staff.

Additional services include comprehensive women's health care, immunizations, a travel clinic, and an allergy clinic for students needing periodic injections. The pharmacy at the Student Health and Wellness Center provides many prescription and over the counter medications at rea-

sonable costs. Radiology and laboratory services are also available.

A notarized parental "consent to treat" form is required before a student under 18 can receive treatment at the Student Health and Wellness Center. A copy of the parental consent form may be obtained from the Student Health and Wellness Center's Web site at [www.asu.edu/health](http://www.asu.edu/health).

For information about Student Health Services at ASU East, call 602/222 6568.

**Health Education.** The Student Health and Wellness Center provides educational programs on nutrition, stress management, alcohol and other drug use and abuse, sexuality, and sexually transmitted diseases, including the Human Immunodeficiency Virus (HIV). Peer education programs provide students an opportunity to gain experience in health education and to enhance presentation skills. Services and educational brochures are available at the Student Health and Wellness Center and at other locations on campus.

**Hours.** Students are strongly encouraged to schedule appointments to minimize waiting time and to allow students the opportunity to establish a relationship with one clinician. Appointments are available by calling 480 965 3349. Patients with urgent health care problems may be seen at the Student Health and Wellness Center's Acute Care Clinic on a same day basis. The clinic is open weekdays from 9 A.M. to 5:30 P.M.

**Fees.** Full time students are not charged for primary care visits at the Student Health and Wellness Center. There are charges for consultant visits, radiological procedures, laboratory procedures, medications, certain special or surgical procedures, and certain health education services. Patients receiving medical treatment off campus, such as consultations, emergency care, and hospitalization, are responsible for any resulting charges.

**Insurance.** While the Student Health and Wellness Center provides comprehensive ambulatory care, it is not a substitute for health insurance. Medical insurance coverage is strongly recommended for all students and is required for international students. Eligible students and dependents may enroll in health insurance coverage arranged by ASU. Dependents must complete an application and may require underwriting approval by the insurance carrier. The coverage assists students in paying for laboratory and radiology procedures, off campus consultations, hospitalization, surgery, and emergency and after hours care. Students may purchase health insurance through SunDial, the ASU touch tone telephone registration system, or at any registrar site. For more information, call the Student Health and Wellness Center's insurance office at 480/965 2411.

## STUDENT MEDIA

The activities of Student Media are most visible in the *State Press*. The campus newspaper, one of the largest daily newspapers in Arizona, is published five days a week by ASU students who make editorial decisions with the support of an experienced university staff director.

The *State Press* provides students with on the job training in newswriting, photography, editing, advertising, and

production work. The *State Press* also addresses the many informational needs of the university community, not only through stories about the campus, and local and national events, but through paid advertisements by area merchants, campus groups, and university faculty, students, and staff. *The Web Devil* is Student Media's online news center and community guide, including complete listings of restaurants, hotels, apartments, transportation, campus maps, and fun places to go within the community surrounding ASU. Access the Web site at [www.statepress.com](http://www.statepress.com).

Student Media publishes *Hayden's Ferry Review* twice a year. This award winning national literary and art magazine brings together in one publication the finest contemporary literature and art by established and emerging writers and artists. Access the Web site at [www.asu.edu/studentmedia/products.htm#hfr](http://www.asu.edu/studentmedia/products.htm#hfr).

Student Media provides complete prepress services to the university community. For more information, call 480 965 7572.

## CAREER SERVICES

Career Services provides advising for individual career planning concerns and offers information about numerous career fields and permanent positions. Students are encouraged to use the Career Education Center throughout their academic careers. A computerized career planning system assists students in evaluating and making career choices. Career Services offers workshops and classroom presentations on career planning, interviewing skills, résumé writing, and a myriad of additional career related topics. Advisors are available to assist students on an individual basis in career planning and employment.

Hundreds of employers from business, industry, government, social service agencies, health organizations, and educational institutions come to ASU to interview students seeking permanent positions and career related summer, intern, and co op employment. Career Services facilitates these interviews for both employers and students to meet each group's needs and interests. In addition, career and job fairs are scheduled throughout the year.

The agency's services support students' career development throughout their college experience, and Career Services encourages participation in programs as early as the student's freshman year. The ASU Main campus office is located in SSV 329. For more information, call 480 965 2350.

ASU East students may contact the Career Preparation Center at 480/727 1411. The office is located on the lower level of the Academic Center Building.

## STUDENT RECREATION COMPLEX AND RECREATIONAL SPORTS

The Student Recreation Complex (SRC) is the place to become involved and meet people with similar interests in an active lifestyle. Student Affairs' Recreational Sports is one of the largest programs of its kind in the country, serving more than 27,000 students annually. Programs offered include intramural sports, informal recreation, fitness, aquatic and sports skills classes, outdoor recreation, children and family programs, sport clubs, adaptive

recreation for individuals with long or short term disabilities, a wellness program, safety education, experiential learning, and special events.

Located on the south end of Palm Walk, the SRC is one of the finest student recreation facilities in the United States. Features include a variety of resistance and cardiorespiratory equipment, a 9,000 square foot weight room, three large gymnasiums, 14 indoor racquetball courts, one squash court, martial arts, aerobics and sport club rooms, outdoor equipment rental, and adaptive weight equipment. Outdoor facilities include a lighted, multiuse complex with four fields, a .43-mile perimeter walking and jogging path, four sand volleyball courts, 14 tennis courts, and a 70 meter swimming pool with two movable bulkheads that allow the pool to be divided into three parts for simultaneous multiuse programming.

For more information, call 480 965 8900, stop by for a tour, or visit the Web site at [www.asu.edu/src](http://www.asu.edu/src).

## ARIZONA PREVENTION RESOURCE CENTER

The Arizona Prevention Resource Center (APRC) is a partnership among ASU, the Governor's Division of Drug Policy, the Arizona Department of Education, and the Arizona Department of Health Services.

The APRC serves as a centralized source for individuals, schools, and communities throughout Arizona to support, enhance, and initiate programs focused on the prevention of the use of tobacco products and the use and abuse of alcohol and other drugs; gangs and violence; and other areas, such as health promotion, domestic violence, and dropout prevention. The APRC operates in the following program areas:

1. Clearinghouse provides accurate, timely, and personalized prevention information and materials through in house library, access to national sources, and linkages between prevention programs in Arizona.
2. Training and Technical Assistance provides high quality, responsive training and technical assistance for organizations and individuals undertaking prevention programs in local communities and schools; focus is on research based (promising and proven) practices.
3. Evaluation and Accountability—coordinates and provides leadership for a statewide evaluation strategy for accountability in alcohol and other drug prevention and treatment programs; produces an annual inventory of substance abuse and gang prevention and treatment programs in Arizona; designs and conducts contracted evaluations of community based prevention programs; promotes accountability in all aspects of APRC operations.
4. Strategic Initiatives and Planning promotes effective collaboration between prevention and treatment program leadership; broadens the funding base for prevention programs; researches and develops strategies for comprehensive statewide systems and accountability.

## STUDENT SERVICES

For more information, call 480/727-2772 or toll-free at 1-800-432-2772, visit the Web site at [www.asu.edu/aprc](http://www.asu.edu/aprc), or write

ARIZONA PREVENTION RESOURCE CENTER  
ARIZONA STATE UNIVERSITY  
PO BOX 872208  
TEMPE AZ 85287-2208

Information can also be obtained by fax, at 480/727-5400, or at 542 East Monroe Street in Phoenix.

The Arizona Drug and Gang Prevention Resource Center (ADGPRC), located with the APRC, provides similar information and technical assistance for communities to help them focus strategically on drug and gang prevention issues.

The ADGPRC can be contacted at 480/727-5015 or toll-free at 1-888-432-2547, or visit the Web site at [www.asu.edu/adgprc](http://www.asu.edu/adgprc).

## INTERCOLLEGIATE ATHLETICS

The university is a member of the National Collegiate Athletic Association, Division I, and the Pacific-10 Conference. The university has 22 varsity intercollegiate sports and more than 500 participants. Intercollegiate athletics at ASU are governed by a board of faculty, students, and staff under the regulations of the Arizona Board of Regents, the NCAA, the Pacific-10 Conference, and the university. Policies are administered by Intercollegiate Athletics. All athletic grants-in-aid and scholarships are administered in coordination with Intercollegiate Athletics.

## RELIGIOUS ACTIVITIES

Various religious centers representing most major religious groups are available near ASU Main and provide students with opportunities to participate in programs of reli-

gious worship and to meet other students through social activities. For more information, call the Campus Interfaith Council at Danforth Chapel, 480/965-3570.

## OTHER OPPORTUNITIES FOR STUDENT INVOLVEMENT

**Dance.** The Department of Dance and Dance Arizona Repertory Theatre, a student touring outreach company, present 12 to 14 faculty- and/or student-directed concerts a year. Interested students should attend open auditions, held at the start of each semester. For more information, call 480/965-5029.

**Forensics.** The ASU Forensic squad, associated with Pi Kappa Delta national forensic honorary association, travels to trophy tournaments across the country. For more information, call the director of Forensics, at 480/965-5095.

**Communication Activities: Performances.** Participants write, compile, and perform scripts for presentation in diverse on- and off-campus settings through the Hugh Downs School of Human Communication. For more information, call 480/965-4111.

**Music.** Performing organizations with the School of Music provide opportunities for involvement and credit, including bands, Lyric Opera Theatre, symphony orchestra, and university choral organizations. For more information, call the School of Music at 480/965-3371.

**Theatre.** The University Theatre presents four to six faculty-directed productions and eight to 14 student-directed productions a year. Audition information is available from the Department of Theatre, GHALL 232, 480/965-5337.



Sun Devil Stadium on a picture-perfect Saturday for football

Tim Trumble photo



# Fees, Deposits, and Other Charges

The Arizona Board of Regents reserves the right to change fees and charges without notice. The latest *Schedule of Classes* usually reflects up to date fee amounts. The following fees apply to both credit and noncredit audit registrations.

## DEFINITIONS

*Resident tuition* refers to the charge assessed to all resident students who register for classes at ASU. *Nonresident tuition* refers to the charge assessed to nonresident students, as established in Arizona Board of Regents' Policy 4-102.

## ACADEMIC YEAR TUITION

The resident and nonresident tuition for fall and spring semesters is shown in the "2001-2002 Resident and Nonresident Tuition" table, on this page. The amounts listed are per semester hour each academic term. For more information on classification for fee status, see "Residency Classification Policies and Procedures," page 50.

Students registered for seven or more hours are considered full time for tuition payment purposes. See "Enrollment Verification Guidelines," page 71.

*Note.* The rate for one hour is charged if the student is registered for only a zero hour class.

**Graduate College Differential Fees.** Certain graduate programs assess an additional differential fee. These fees differ according to college and/or program. Contact the program advisor for details on these fees.

**Off-Campus and Independent Learning Courses.** For information on fees for off-campus and independent learning courses, see "Distance Learning and Technology," page 708.

**Summer Sessions Fees.** The 2002 registration fee per semester hour is \$126, except for law students. The registration fee per semester hour for law students is \$270. For more information, see "Summer Sessions," page 539, and the *Summer Sessions Bulletin*.

## OTHER FEES, DEPOSITS, AND CHARGES

**Special Class Fees and Deposits.** Certain university classes require payment of fees or deposits for materials, breakage, and rentals. These fees and deposits are listed in the *Schedule of Classes* for each semester.

**Student Recreation Complex Fee.** All students (except university employees who take at least one class at ASU Main) must pay a mandatory Student Recreation Complex fee. Full-time (seven or more hours) students are charged \$25 per semester. Part-time students pay \$12 per semester, and summer students pay \$12 per semester. See the latest *Schedule of Classes* for more information.

## 2001-2002 Resident and Nonresident Tuition

Hours	Resident*	Nonresident*
1	\$ 126.00	\$ 425.00
2	252.00	856.00
3	378.00	1,284.00
4	504.00	1,712.00
5	630.00	2,140.00
6	756.00	2,568.00
7	1,206.00	2,996.00
8	1,206.00	3,424.00
9	1,206.00	3,852.00
10	1,206.00	4,280.00
11	1,206.00	4,708.00
12 or more	1,206.00	5,139.00

Tuition is subject to change for 2002-2003. In addition to tuition, students are charged other fees, such as the Student Recreation Complex fee and financial aid trust fee.

**Financial Aid Trust Fee.** All students must pay a financial aid trust fee. Full-time students enrolled for seven or more hours are charged no more than 1 percent of the current tuition. The fee for students enrolled six or fewer hours is half that charged full-time students. The total summer sessions fee does not exceed the amount for a full-time student. Fees collected from students are matched by the State of Arizona and used to create a Financial Aid Trust Fund, from which student grants are awarded under the usual financial aid eligibility criteria used by the ASU Student Financial Assistance office.

**Arizona Students' Association (ASA) Fee.** The ASA is a nonprofit lobbying organization that represents Arizona's public university students to the Arizona Board of Regents, State Legislature, and U.S. Congress. In 1997, students at the state universities voted to change the mechanism for funding the ASA. A \$1 fee is charged to each student every semester. Any refunds for this fee are provided through the ASA Central Office.

**Late Registration.** The fee assessed for registrations on or after the first day of each session is \$35. A \$35 late fee is also assessed on registration payments received after the fee payment deadline but processed before the class enrollment purge.

**Admission Application.** The nonrefundable fee for undergraduate admission or readmission applications to a degree program is \$50. The nonrefundable fee for graduate admission applications to a degree program is \$45. The nonrefundable fee for graduate nondegree applications or applications for readmission to a degree program after a lapse in enrollment is \$15.

## FEES, DEPOSITS, AND OTHER CHARGES

**Transcripts.** The Office of the Registrar releases official transcripts *only upon the written request of the student*. The request must include the following information about the student:

1. name and former name(s);
2. ID number;
3. date of birth;
4. dates of attendance;
5. return address;
6. specific address to mail transcript;
7. signature; and
8. appropriate fees (as described in the text that follows).

The Request for Official Transcript form is available online at [www.asu.edu/registrar/forms](http://www.asu.edu/registrar/forms).

The Office of the Registrar does not issue a transcript if the student has a financial records hold. The student must supply a specific address if the transcript is to be mailed.

The fee for an official transcript for a student not enrolled is \$5 for the first copy. Additional copies ordered at the same time are \$1 each. The fee is \$1 per copy for a student enrolled for a current or future semester.

Unofficial transcripts may be requested in person at the Office of the Registrar, any registrar site, or by mail or fax (480 965 2295) if a signed release is enclosed. There is no charge for an unofficial transcript.

All in-person transcript requests require presentation of photo identification. Requests are not accepted from third parties without a written release from the student. For information on parental access to records, see "Access to Records," page 78.

**Copies of Education Records Other Than ASU Transcripts.** For fewer than six pages, there is no charge. For six to 10 pages, the total charge is \$2. For 11 to 15 pages, the total charge is \$3. Copies of additional pages cost \$1 for every five pages copied.

**Comprehensive Examination.** This fee is paid by all students seeking to establish credit by examination and is \$50 per semester hour.

**Private Music Instruction.** The fee for one-half hour of instruction weekly is \$6. The fee for one hour of instruction weekly is \$100.

**Musical Instrument Rental Charge.** The charge for use of university-owned musical instruments is \$25 per semester. Consult the School of Music for specific information.

**Binding and Microfilm Fees.** The binding fee for a thesis or dissertation is \$17 per copy. This fee is subject to change. Additional charges may be required depending on the size and nature of the document. The dissertation microfilming fee is \$55 and is subject to change.

**Sun Card ID Card.** The replacement fee is \$15.

**Parking Decals.** A parking decal must be purchased in person or by using the Sun Dial Park Smart touch-tone telephone system 480 353 1500, for motor vehicles parked on

campus except in areas where metered parking or visitor lots are available. Photo identification is required. Annual decals for controlled access parking start at \$50. Decals are sold on a first come, first served basis. For more decal sales information, call 480 965-6124, or visit the Web site at [www.asu.edu/dps/pts](http://www.asu.edu/dps/pts).

Each vehicle registered at ASU Parking and Transit Services must comply with Arizona emission standards (A.R.S. § 15-1627G) during the entire registration period. The fee for this emission inspection is \$25 per vehicle.

Everyone is encouraged to support travel reduction measures by using mass transit, the university shuttle bus, car pooling, bicycling, or walking whenever possible.

**Parking Violations.** Due to a high demand for parking, regulations are strictly enforced. Fines range from \$10 to \$100. Appeals to parking citations may be filed within 14 calendar days to Parking and Transit Services and, after payment, may be further appealed to the Parking Citation Appeals Board. Unpaid parking citations are delinquent financial obligations subject to the provisions of the "Delinquent Financial Obligations," page 50. The vehicle of any person owing three or more unpaid parking citations or \$100 in unpaid parking citations is subject to impoundment. An \$45 minimum fee is assessed if impoundment is required. For more information, call 480 965 4527.

**Returned Checks.** Checks returned by a bank are assessed a \$15 service charge with repayment needed within five business days of notification. A second \$12 service charge is made if the returned check is not repaid within the five-day period. Repayment of a returned check must typically be in cash.

The university may have arrangements with its bank to redeposit automatically for a second time checks for which there are insufficient funds. No service charge is assessed by ASU until a check is returned to ASU; however, the payer may be assessed a service charge by the payer's financial institution.

Students paying fees with a check that is subsequently not honored by a financial institution are subject to involuntary withdrawal from the university if repayment is not made. All students involuntarily withdrawn are charged according to the standard refund schedule as of the involuntary withdrawal date, as determined by the university.

**On-Campus Housing.** The cost of ASU Maricopa housing varies. In 2000–2001 the typical cost was \$3,100 per academic year. Meal plans are purchased separately. For more information, see "Residential Life," page 39, or call 480 965 3515.

## TRANSPORTATION

To reduce air pollution and traffic congestion, students are encouraged to travel to and from campus by means other than automobile and to reduce transportation needs through careful class scheduling. Nearby on-campus parking is limited and tightly controlled.

Alternative transportation modes are used by thousands of ASU students. ASU is served by a regional transit service, monthly and reduced fare semester passes are available on campus. In addition, an inexpensive express shuttle

## FEES, DEPOSITS, AND OTHER CHARGES

runs between ASU Main in Tempe and ASU West in north west Phoenix, another shuttle runs among ASU Main, Mesa Community College, and ASU East in Mesa; and a Free Local Area Shuttle (FLASH) is available around the periphery of ASU Main. A free Neighborhood Flash also is available for the ASU community connecting the Escalante and University Heights neighborhoods with the Riverside Sunset and London Park neighborhoods through downtown Tempe and ASU Main.

Bicycle ridership at ASU is estimated to be more than 15,000 students daily. Ample racks in many locations enable the parking and securing of bicycles. Bicycle use is restricted only in those areas of campus where pedestrian traffic is sufficiently heavy to make such use a hazard. The Bike Co-op Repair Service provides assistance with bicycle maintenance.

For more information on commute alternatives, call 480 965 1072.

### PAYMENT METHODS AND DEADLINES

**SunDial.** The SunDial system, at 480 350 1500, allows students to register for classes, to drop and add classes, and to make fee payment from any touch tone phone. Students paying fees with available financial aid, debit cards, Visa, MasterCard, or Discover must use the SunDial system. Refer to the *Schedule of Classes* for available dates and times and more information about the SunDial system.

**Debit/Credit Cards.** ASU accepts debit cards, Visa, MasterCard, and Discover. Debit credit card payments through SunDial are processed online with the bank. See the *Schedule of Classes* for information about using debit credit cards by mail or campus payment boxes.

**Checks.** Checks payable for the exact amount of charges and without a restrictive endorsement are generally acceptable, except for students on check use suspension due to a previously returned check.

**Financial Aid.** Students receiving financial aid may use their expected aid, except Federal Work Study, to pay university charges through the SunDial phone system (480 350 1500). If the balance owed exceeds the financial aid, it must be paid with a check or credit card by the fee payment deadline date.

**Veterans Deferred Payment.** The Veterans Readjustment Assistance Act allows veterans to apply for deferred payment of fees, books, materials, and supplies required for courses. To assist eligible students, a Veteran Promissory Note may be issued deferring payment during their first semester of benefits. Contact the Veterans Services Section at SSV 148, or call 480 965-7723 for information on meeting the necessary requirements. The university may deny this privilege if the student has had previous delinquent obligations.

**Payment Deadlines.** Fees must be paid by the deadline dates and times indicated or the registration is voided. A fee payment deadline is printed on all Schedule/Billing Statements and in the *Schedule of Classes*.

### REFUNDS

**Academic Year Resident and Nonresident Tuition.** Students withdrawing from school or individual classes receive a refund as described in the "Fall and Spring Withdrawal Refunds" table:

#### Fall and Spring Withdrawal Refunds

Withdrawal Date	Refund
Before first day of the semester	100%*
One through 7 calendar days	80%
8 through 14 calendar days	60%
15 through 21 calendar days	40%
22 through 28 calendar days	20%
After the 28th calendar day	No refund

\* A \$35 processing fee is subtracted per session.

The university provides a prorated refund for first time students receiving financial aid; therefore, the refund schedule is the minimum amount refundable to these students.

Withdrawal occurs on the calendar day that withdrawal is requested, either in person at a registrar site or by phone using SunDial. Students withdrawing for medical or other extenuating circumstances must contact their college for refunds that may be available under these circumstances.

**Summer Sessions Fees.** Students withdrawing from any summer session or individual classes receive a refund as described in the "Summer Sessions Withdrawal Refunds" table. *Refunds are based on the session days and not the last meeting dates for any particular class.*

#### Summer Sessions Withdrawal Refunds

Withdrawal Date	Refund
Before first day of session	100%*
First and second days of session	80%
Third day of session	60%
Fourth day of session	40%
Fifth day of session	20%
After fifth day of session	No refund

\* A \$35 processing fee is subtracted per session.

**Special Class Fees and Deposits.** After the first week of classes, refunds, if any, are determined only by the department or school offering the course. Refund determination is based on withdrawal date, type of activity, and costs already assessed by the department or school.

**Private Music Instruction.** If a student must drop a music course because of illness or other emergency beyond the student's control, not more than half of the instruction charge may be refunded as determined by the School of Music.

**Late Registration.** This fee is not refundable.

**Student Recreation Complex Fee.** This fee is refundable only upon complete withdrawal in percentage increments per the refund schedule.

## FEES, DEPOSITS, AND OTHER CHARGES

**Financial Aid Trust Fee.** This fee is not refundable.

**Official Transcripts.** Overpayments by mail of \$5 or less are refunded only by specific request.

**Graduation Fee.** Overpayments by mail of \$5 or less are refunded only by specific request.

**Residence Halls.** Refunds to students departing from ASU Main residence halls before the end of the academic year are computed on the following basis:

**Changes and Deposits.** Housing payments and deposits are refunded as prescribed by the Residential Life License Agreement that students sign when they apply for residence hall accommodations. Students should refer to the Residential Life Schedule of Charges and Deadlines for specific information on refunds.

**Other University Charges.** Other university charges are normally not refundable, except for individual circumstances.

**Payment of Refunds.** Refunds require student identification and are made payable only to the student for the net amounts due the university. When the last day of a refund period falls on a weekend or holiday, a withdrawal form must be submitted to one of the registrar's desks during operating hours on the workday preceding the weekend or holiday. Refunds are normally paid by check, payable to the student, and are mailed to the student's local address.

**Parking Decal Refunds.** Prorated refunds are available through the last business day in April.

**Forfeiture of Refunds.** Refunds are subject to forfeiture unless obtained within 90 days of the last class day of the semester for which the fees were originally paid.

### DELINQUENT FINANCIAL OBLIGATIONS

Arizona Board of Regents' Policy 4-103B, which applies to ASU, states the following:

1. Each university shall establish procedures to collect outstanding obligations owed by students and former students.
2. Each university shall maintain a system to record all delinquent financial obligations owed to that university by students and former students.
3. Students with delinquent obligations shall not be allowed to register for classes, purchase parking decals, receive cash refunds, or obtain transcripts, diplomas, or certificates of program completion. The university may allow students to register for classes, obtain transcripts, diplomas, or certificates of program completion if the delinquent obligation is \$25 or less.
4. Unpaid obligations shall remain a matter of record until students and former students satisfy their financial obligations or until satisfactory arrangements for repayment are made with the university.
5. The university may write off delinquent financial obligations of students according to accepted accounting principles and after appropriate collection efforts.

No such write off shall operate to relieve the student of liability for the obligation nor shall such write off entitle the student to release of any transcripts, diplomas, certificates of program completion, or to register for further university classes until such obligation is actually paid.

6. Each university shall include this policy in its bulletin or catalog.

A late charge of \$12 is assessed for any balances due the university not paid within 30 days of the initial due date, with a second \$12 late charge assessed if these amounts are not paid within 30 days of the first late charge and a third \$12 late charge is assessed if these charges are not paid within 60 days of the first late charge. Procedures to be followed for disputed charges are available from the Accounts Receivable section of Student Business Services located in ADM A109.

### RESIDENCY CLASSIFICATION POLICIES AND PROCEDURES

The Arizona Board of Regents is required by law to establish uniform guidelines and criteria for classifying students' residency to determine those students who must pay nonresident tuition. The following is a summary of the general guidelines used to determine residency for tuition purposes. All of the evidence is weighed under the presumption that a nonresident student's presence in Arizona is primarily for the purpose of education and not to establish domicile and that decisions of an individual about the intent to establish domicile are generally made after the completion of an education and not before.

To obtain resident status for tuition purposes, independent students must establish their residence in Arizona at least one year before the last day of regular registration for the semester in which they propose to attend ASU. Arizona residence is generally established when individuals are physically present in the state with the intention of making Arizona their permanent home.

Mere physical presence in Arizona for one year does not automatically establish residency for tuition purposes. Adult students and emancipated minors must combine physical presence in Arizona for one year with objective evidence of their intent to make Arizona their permanent home. If these steps are delayed, the one-year period is extended until both presence and intent have been demonstrated for one full year. In addition to physical presence and intent, the student must demonstrate financial independence for the two tax years immediately preceding the request for resident classification. The student must demonstrate objective evidence of self support and that he or she was not claimed as an income tax deduction by his or her parents or any other individual for two years. An adult student is defined as being at least 18 years of age at the beginning of the domicile year. For a complete definition of an emancipated minor, refer to the Arizona Board of Regents' residency classification policies, available in the Residency Classification Section, SSV 146.

No person is considered to have gained or lost resident status merely by attending an out-of-state educational institution.

**Aliens.** Students who are aliens are subject to the same requirements for resident status as are U.S. citizens. In establishing domicile, aliens must not hold a visa that prohibits establishing domicile in Arizona.

**Refugees.** Refugees may qualify as resident students by virtue of having been granted refugee status in accordance with all applicable laws of the United States and having met all other requirements for residence in Arizona.

### Exceptions to the General Residency Rule

Students may be eligible for resident status for tuition purposes if they can meet one of the following criteria on or before the last day of regular registration.

**Legal Dependents.** If a student and his or her parents are domiciled in Arizona and have not met the one-year residency requirement but the parents are entitled to claim the student as a dependent for federal and state tax purposes, the student may be eligible for resident status for tuition purposes.

**Transferred Employees.** If students are domiciled in Arizona and have not met the one-year residency requirement but are employees or spouses of employees who have been transferred to Arizona by their employers for employment purposes, the students may be eligible for resident status for tuition purposes.

**Members of the Military.** If students are not domiciled in Arizona but are members of the U.S. Armed Forces stationed in Arizona or are the spouses or dependent children of a member (as defined in A.R.S. § 43-1001), the students may be eligible for resident status for tuition purposes. If military service is concluded while they are enrolled, students do not lose resident status while they are continuously enrolled in a degree program. If individuals are domiciled in Arizona immediately before becoming members of the U.S. Armed Forces, they do not lose resident status because of their absence while on active duty with the military as long as they maintain Arizona affiliations and file Arizona state tax.

A student who is a member of an Arizona National Guard or Arizona Reserve unit may be eligible for resident status for tuition purposes. A student may also be eligible if he or she has been honorably discharged from the armed forces of the United States, has declared Arizona as his or her legal residence one year before discharge, and has taken the other appropriate actions, including filing an Arizona income tax return. A student who is the spouse or dependent of a member of the armed forces who has claimed Arizona as his or her legal residence and filed Arizona income tax for one year before enrollment may be eligible for resident status for tuition purposes.

**Teachers and Classroom Aides.** If a student is under contract to teach on a full-time basis or is employed as a full-time non-certified classroom aide at a school within a school district, the student is eligible to pay resident tuition only for courses necessary to complete the requirements for certification by the State Board of Education.

**Native Americans.** Students who are members of a Native American tribe whose reservation lies both in Arizona and



Welcome Week activities offer many fun ways to get to know fellow freshmen.

Tim Trumble photo

an adjacent state and who are residents of that reservation may be eligible for resident status for tuition purposes.

### Procedures for Establishing Resident Status

All students are responsible for obtaining residency classification for tuition purposes before registering and paying their fees. This procedure requires students to complete and file an Arizona residency information form. This form is required of all new and returning students as part of the admission or readmission process. Students classified as nonresidents who believe they may qualify for resident status must file a petition with the Residency Classification Section. This petition must be filed by the last day of regular registration. A student seeking resident status must also file supporting documentation necessary to provide a basis for residency classification (source[s] of support, driver's license, voter's registration, vehicle registration, etc.). Students whose residency petitions are in process at the fee payment deadline are responsible for paying nonresident tuition. However, an appropriate refund is issued if resident status is later granted for that semester.

Any student found to have made a false or misleading statement concerning resident status is subject to dismissal from the university.

Failure to file a timely written petition for reclassification of resident status for tuition purposes constitutes a waiver of the student's right to apply for the given semester. Petition deadlines are published each semester in the *Schedule of Classes*. Extensions to the deadlines are not permitted.

Residency classification is an extremely complex issue. The information presented here is a summary and does not address each individual's situation; therefore, students are encouraged to make a personal visit to the Residency Classification Section to discuss their individual circumstances as soon as possible. Guidelines for determination of residency for tuition purposes are subject to review and change without notice. For more information, call the Residency Classification Section at 480/965-7712, or access the Web site at [www.asu.edu/registrar/residency](http://www.asu.edu/registrar/residency).

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# Financial Aid

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The primary responsibility for financing a college education belongs to students and their families (see the “2001–2002 Typical Student Budgets” table, page 53). The Student Financial Assistance Office helps students, within the limits of available funds, meet college costs. Students must complete all applications in an accurate and timely manner and notify Student Financial Assistance of any changes in circumstances that may affect eligibility (e.g., loss of parent’s income or change in residency classification). Financial assistance is available as scholarships, grants, loans, and employment. This aid has been made available collectively by the university, alumni, private foundations, civic groups, individuals, and state and federal governments.

To be considered for financial aid, all students must complete the Free Application for Federal Student Aid (FAFSA). This application should be completed in January or early February preceding the academic year the student anticipates attending ASU. The priority date for applying is February 15. Applications completed after this date are processed; however, they are considered late applications. Late applications are less likely to receive federal work-study, grants, and scholarships due to funding limitations.

Additional documentation may be requested to verify application data. Students receive an award notification once their file is complete. Applicants should read carefully all correspondence received.

Students receiving aid are required to meet minimum standards of satisfactory academic progress. In addition to maintaining the minimum GPA defined for good academic

standing, students must complete the hours for which they are funded during the academic year. Failure to meet these standards results in the suspension of aid for subsequent semesters until the deficiency is satisfied.

Students can access personal information regarding financial aid through the SunDial phone system at 480/350-1500 or on the Financial Aid Services Through Technology (FASTT) Web site at [www.asu.edu/fa](http://www.asu.edu/fa). Students can access the following information:

1. documents still needed to complete a financial aid file;
2. award information; and
3. financial aid forms for printing.

## TYPES OF FINANCIAL AID AND MAJOR PROGRAMS

ASU students receive financial aid resources totaling more than \$261 million. There are four categories of financial aid: scholarships, grants, loans, and employment.

### Scholarships

There are two sources of scholarships at ASU: university-funded scholarships and private donor scholarships. Many scholarships are offered on the basis of academic merit. However, financial need criteria may also be included in the selection of recipients. Other considerations are GPA, leadership qualities, and community service.



An aerial view of ASU Main campus with Grady Gammage Auditorium prominent in the foreground

Jeff Haver photo

## 2001 2002 Typical Student Budgets

Item	At Home	Dependent		Independent	
		On Campus	Off Campus	On Campus	Off Campus
Room	\$ 1,000	\$ 3,340	\$ 3,900	\$ 3,700	\$ 4,950
Board	1,040	2,076	2,076	2,076	2,076
Personal/Miscellaneous	2,124	2,124	2,124	2,738	2,738
Transportation	1,040	1,040	1,040	1,250	1,250
<b>Total living<sup>1</sup></b>	<b>\$ 5,204</b>	<b>\$ 8,580</b>	<b>\$ 9,140</b>	<b>\$ 9,764</b>	<b>\$ 11,014</b>
Resident tuition	\$ 2,412	\$ 2,412	\$ 2,412	\$ 2,412	\$ 2,412
Special fees	76	6	76	76	76
Books supplies	726	726	726	726	726
<b>Resident total</b>	<b>\$ 8,418</b>	<b>\$ 11,794</b>	<b>\$ 12,354</b>	<b>\$ 12,978</b>	<b>\$ 14,228</b>
Additional tuition for nonresidents <sup>2</sup>	\$ 7,866	\$ 7,866	\$ 7,866	\$ 7,866	\$ 7,866
<b>Nonresident total</b>	<b>\$ 16,284</b>	<b>\$ 19,660</b>	<b>\$ 20,220</b>	<b>\$ 20,844</b>	<b>\$ 22,094</b>

<sup>1</sup> Loan fees are not included in this amount.

<sup>2</sup> Amounts of nonresident tuition are shown in the "2002 Resident and Nonresident Tuition" table, page 47.

The Scholarship Office coordinates all scholarship programs. High school students should contact their high school counselors or visit the scholarship Web site at [www.asu.edu/fascholarships](http://www.asu.edu/fascholarships) to determine the appropriate process for obtaining a variety of scholarships available to entering freshmen. Other undergraduate students may contact the Scholarship Office or search the Web site for available scholarships. In addition, many academic units provide scholarship funding and select students based on a variety of criteria, which include artistic talent, musical ability, and athletic performance. Students seeking these scholarships should contact the appropriate academic unit directly.

**Scholarship Tax Credits.** Students may be eligible for either the Hope Scholarship or the Lifetime Learning tax credits. Additional information about these tax credits is available on the Web at [sbs.asu.edu](http://sbs.asu.edu).

Consult a personal tax advisor about qualifications for the Hope Scholarship and Lifetime Learning tax credits.

**Private Donor Scholarships.** Most of these scholarship funds are provided by employers, private individuals, organizations, and corporations. In most cases, the private donor specifies the criteria used by the Scholarship Office to identify candidates for a particular scholarship.

**University Scholarships.** These scholarships are generally in the value of tuition and/or fees. The largest source for university scholarships is the waiver program authorized by the Arizona Board of Regents. In addition, many scholarships are funded from a general endowment fund. Some of the typical areas targeted for these scholarships are top academic seniors in Arizona high schools, students who demonstrate leadership, students who demonstrate scholastic or scientific abilities, students with disabilities, and nontraditional students.

## Grants

Grants are gift assistance from the federal government, the state, or the university that do not have to be repaid.

**Federal Pell Grant.** Funded by the federal government, the Pell Grant is awarded to students who demonstrate significant financial need. Pell Grant eligibility is determined by the U.S. Department of Education. All students are informed of their eligibility for the grant through the Student Aid Report. The maximum award for the 2001-2002 academic year was \$3,750.

**Federal Supplemental Educational Opportunity Grant.** SEOG is a federally funded, campus-based program. A limited amount of funds is available through the program. The amount received will depend upon a student's financial need, the amount of other assistance awarded, and the availability of funds. Maximum grant awards for 2001-2002 were \$1,000.

**Leveraging Educational Assistance Partnership (LEAP).** This is a three-partner program of federal, state, and university funding. Students with a high financial need may receive this particular form of funding. It is restricted to residents of Arizona. The maximum grant for 2001-2002 was \$1,250.

**Student Aid Trust Grant.** Provided in partnership between ASU students and the state legislature, these funds are provided primarily to resident, undergraduate or underrepresented students with a high financial need. The maximum grant for 2001-2002 was \$1,500.

**University Grant.** University grants are generally reserved as the last grant program to be used to resolve a student's need. Funded by the university, grants are available for both resident and nonresident students. The maximum grant awards for 2001-2002 were \$1,500.

## FINANCIAL AID

### Loans

Loans are forms of financial assistance available from sources such as the federal government and private lenders that must be repaid and will include any accrued interest.

**William D. Ford Direct Student Loan.** Through the William D. Ford Direct Student Loan program, the federal government loans money to students based on the university's determination of the student's financial need and cost of education. Repayment begins after the student graduates, leaves school, or drops below half-time enrollment. Under this program there are two loan types: subsidized and unsubsidized. With a subsidized Direct Student Loan, the federal government pays the interest on the loan principal during the student's in-school status, grace, and other authorized periods of deferment.

The school may determine the student to have eligibility for an unsubsidized Direct Student Loan. In this program, the federal government does not pay the interest during the student's in-school status, grace, or other authorized periods of deferment. As the student proceeds through school, interest will accrue and will be added once the student enters repayment. Otherwise, conditions and terms for the two programs are the same.

There is a variable interest rate that is adjusted every July 1. Interest cannot exceed 8.25 percent. In addition, there is a 3 percent loan origination fee deducted from each disbursement. The federal government provides several options for repayment once the student has left school. For students who are considered dependent based on their financial aid application, the following total annual loan limits for subsidized and unsubsidized apply: freshmen may borrow up to \$2,625 per year, sophomores, up to \$3,500 per year; and juniors and seniors, up to \$5,500 per year. For students who are considered independent, the following annual loan limits apply: freshmen may borrow up to \$6,625, of which only \$2,625 can be subsidized; sophomores, up to \$7,500, of which only \$3,500 can be subsidized; and juniors and seniors up to \$10,500, of which only \$5,500 can be subsidized.

**Federal Perkins Loan.** The Federal Perkins Loan program is funded by the federal government; the school is the actual lender, and repayments after graduation are made to the university at a 5 percent interest rate. Like the subsidized Student Loan, no interest accrues on the Perkins Loan during the student's in-school status, grace, or other authorized periods of deferment. If funding is available, deferment and cancellation provisions may apply to graduates working in community service, qualifying law enforcement, and teaching occupations. Maximum awards for 2011-2012 were \$3,000.

**Parent Loan for Undergraduate Students.** Under the Parent Loan for Undergraduate Students (PLUS), parents may borrow money from the federal government on behalf of their dependent students. With this loan, interest is not deferred and repayment begins 45 days after the second disbursement of the loan to the parent. The PLUS approval is based on the parents' credit history. If parents are determined ineligible for a PLUS and students need additional funds, they should contact the Student Financial Assistance

office to determine their eligibility for an unsubsidized Direct Student Loan. There is a variable interest rate adjusted every July 1 that cannot exceed 9 percent. The maximum loan amount is determined by subtracting all other financial aid from the student's cost of education.

### Employment

The Student Employment Office provides employment opportunities to students who must work to meet educational expenses or who wish to work because they feel the experience can be a valuable part of their education. Students may choose between hourly and Federal Work Study programs. The Federal Work Study programs include community service opportunities.

**Federal Work-Study.** Funds for this program are provided on a matching basis by the federal government and the university. Students employed under this program receive the same pay rates as other students being employed on campus. In this program, students must demonstrate a financial need.

**University Hourly.** The university, with its own resources, hires many students on a part-time basis. Although the jobs are similar to those under the Federal Work Study Program, the university provides the entire amount of the student's wage.

**Part-Time Off-Campus.** The university receives requests for assistance from many agencies and corporations throughout the area to help them recruit and hire students on a part-time basis. The referral service at the university provides opportunities for students not only to earn funds to support their education, but to gain experience in the areas of their majors or career interests.

### Taxability of Financial Aid Programs

Scholarships, grants, fellowships, and stipends (but not loan funds) are taxable income to the recipient, except for the portion of these funds used for tuition, registration, and other university fees, or books, supplies, and equipment required for the courses being taken. Special tax regulations also apply to nonresident alien students and may require withholding of taxes at the time of aid disbursements to these individuals. Information on the taxability of scholarships can be obtained from the following: Internal Revenue Service (IRS) publications and forms: *Publication 4—Student's Guide to Federal Income Tax*; *Publication 19—U.S. Tax Guide for Aliens*; *Publication 520—Scholarships and Fellowships*; Form 1040EZ and Instructions; Income Tax Return for Single and Joint Filers with no dependents, and Form 1040NR and Instructions; U.S. Nonresident Alien Income Tax Return.

These publications and forms can be obtained from the IRS at its toll-free number 1-800-829-FORM-3676. These publications and forms can also be accessed online at [www.irs.ustreas.gov/prod/forms\\_pubs/](http://www.irs.ustreas.gov/prod/forms_pubs/).



# Classification of Courses

## COURSE INFORMATION

Information about all lower and upper division courses offered at ASU Main and ASU East appears in the *General Catalog*, available on the Web at [www.asu.edu](http://www.asu.edu) and catalogs. Course information at this Web site is more current than in the printed catalog.

ASU Main and ASU East graduate level courses are described in the *Graduate Catalog*. ASU West courses are described in the *ASU West Catalog*.

Classes scheduled for the current or upcoming fall or spring semester are listed in the *Schedule of Classes*. Classes scheduled for the summer sessions are listed in the *Summer Sessions Bulletin*. Class schedules are available on the Web at [www.asu.edu](http://www.asu.edu) registrar schedule.

## COURSE LISTINGS

See "Course Prefix Index," page 6, for the location of all ASU courses by prefix. See the "Key to Course Listings" diagram, below, for help in understanding listings.

**Campus Code.** Campus codes are used in the *General Catalog* only for courses in prefixes used by both ASU East and ASU Main. Campus codes are used for all courses offered at ASU Main (M), ASU East (E), and ASU West (W) in the *Schedule of Classes* and the *Summer Sessions Bulletin*.

**Semester Offered.** In the *General Catalog* and *Graduate Catalog*, the semester offered shows when the academic unit plans to offer the course. Refer to the *Schedule of Classes* and the *Summer Sessions Bulletin* in print or on the Web for the actual course offerings.

**Prerequisites and Corequisites.** Some requirements, known as prerequisites, must be met *before* registering for a course. Other requirements, called corequisites, must be met

*while* taking a course. A student registering for a course should be able to show that prerequisites have been met and that corequisites will be met as stated in the catalog or *Schedule of Classes* or must otherwise satisfy the instructor that equivalent preparation has been completed.

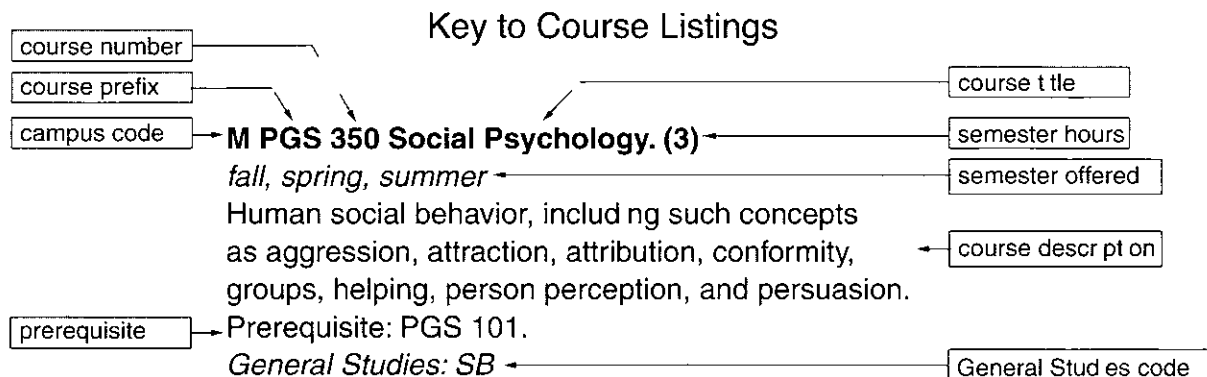
**General Studies Code.** See "General Studies," page 83, for an explanation of the General Studies requirement, which applies to students pursuing a bachelor's degree.

## COURSE NUMBERING SYSTEM

**Lower-Division Courses.** Lower division courses, numbered from 100 to 299, are designed primarily for freshmen and sophomores. Certain classes are closed to freshmen who lack the designated prerequisites or whose majors are outside the unit offering the course. This information is available in the *General Catalog*, in the *Schedule of Classes*, or from the student's academic advisor.

**Upper-Division Courses.** Upper division courses, numbered from 300 to 499, are designed primarily for juniors and seniors. Prerequisites and other restrictions should be noted before registration. Courses at the 400 level apply to graduate degree requirements for some graduate programs when approved by the Graduate College.

**Graduate-Level Courses.** Graduate level courses, numbered from 500 to 799, are designed primarily for graduate students. However, an upper division undergraduate student may enroll in these courses with the approval of the student's advisor, the course instructor, the department chair, and the dean of the college in which the course is offered. If the course does not meet an undergraduate graduation requirement, it may be eligible for use in a future graduate program on the same basis as work taken by a nondegree



## CLASSIFICATION OF COURSES

graduate student. See "Reserving of Course Credit by Undergraduates," page 71.

### Omnibus Courses

Omnibus numbers are used for courses offered on an experimental or tutorial basis or for courses in which the content is new or periodically changes. Academic units use their prefixes with omnibus course numbers. The general nature of the work required for a particular omnibus course is consistent from unit to unit, but subject matter varies. Omnibus courses are often offered for a variable number of semester hours. See the appropriate academic unit in the *General Catalog* or major in the *Graduate Catalog* for omnibus courses.

Within the catalogs and *Schedules of Classes*, abbreviations are frequently used with a colon to introduce specific omnibus course topics, e.g., IBS 494 ST: Regional Business Environment of Southeast Asia. See the "Omnibus Course Abbreviations" table below.

#### Omnibus Course Abbreviations

Abbreviation	Title	Number
AP	Applied Project	593, 693, 793
CW	Conference and Workshop	594
FYS	First Year Seminar	191
FW	Field Work	583, 683, 783
HC	Honors Colloquium	497
P	Practicum	580, 680, 780
PS	Pro Seminar	498
R	Research	592, 692, 792
RC	Reading and Conference	590, 691, 791
RM	Research Methods	500, 600, 700
S	Seminar	591, 691, 791
ST	Special Topics	194, 294, 394, 494, 595

### OMNIBUS UNDERGRADUATE COURSES

#### 191 First-Year Seminar. (1-3)

Small course emphasizing student faculty discussion, interaction. Strongly recommended for first year students. Must have taken 25 or fewer semester hours. Consulting an academic advisor before enrolling is recommended.

#### 194, 294, 394, 494 Special Topics. (1-4)

Covers topics of immediate or special interest to a faculty member and students.

#### 484 Internship. (1-12)

Structured practical experience following a contract or plan supervised by faculty and practitioners.

#### 498 Pro-Seminar. (1-7)

Small group study and research for advanced students within the majors. Major status in the department or instructor approval is required.

#### 499 Individualized Instruction. (1-3)

Provides an opportunity for original study or investigation in the major or field of specialization on an individual and more autonomous basis. Neither a substitute for a catalog course nor a means of taking a catalog course on an individual basis. Requires application with the advance of regular registration with the student's advisor, the advisor's signature, and approval by both the instructor with whom the student will work and the chair of the department offering the course. This

course may be taken only by outstanding senior students who have completed at least one semester of residence and who have a minimum GPA of 3.00 or higher in the major or field of specialization. A special class fee may be required.

**First-Year Seminar.** The First Year Seminar series is specifically designed to meet the needs of the first year student. Faculty volunteer to direct the seminars and choose course topics according to their own interests and areas of specialization. Class size is restricted so that, early in their college careers, students may interact directly with some of the best faculty the university has to offer.

**Honors Courses.** The courses listed as 298 and 497 Honors Directed Study, 493 Honors Thesis, 497 Honors Colloquium, and all courses with the HON prefix are reserved for students in the Barrett Honors College. These courses range from one to six semester hours. Consulting with an honors advisor before enrolling is recommended.

### OMNIBUS GRADUATE COURSES

#### 500, 600, 700 Research Methods. (1-12)

Course on research methods in a specific discipline.

#### 580, 680, 780 Practicum. (1-12)

Structured practical experience in a professional program supervised by a practitioner and/or faculty member with whom the student works closely.

#### 583, 683, 783 Field Work. (1-12)

Structured supervised field experience in a field science or other discipline requiring experience in field techniques.

#### 584, 684, 784 Internship. (1-12)

Structured practical experience following a contract or plan supervised by faculty and practitioners.

#### 590, 690, 790 Reading and Conference. (1-12)

Independent study in which a student meets regularly with a faculty member to discuss assignments. Course may include both assignments as intensive reading in a specialized area, writing syntheses of literature on a specified topic, writing literature review of a topic.

#### 591, 691, 791 Seminar. (1-12)

A small class emphasizing discussion of presentations by students and written research papers.

#### 592, 692 Research. (1-12)

Independent study in which a student under supervision of a faculty member conducts research that is expected to lead to a specific project such as a thesis or dissertation report or publication. Assignments might include data collection, experimental work, data analysis or preparation of a manuscript.

#### 593, 693, 793 Applied Project. (1-12)

Preparation of a supervised applied project that is a graduation requirement in some professional majors.

#### 594 Conference and Workshop. (1-12)

Topic instruction usually in compressed format leading to a academic credit. Often offered off campus to groups of professionals.

#### 595, 695, 795 Continuing Registration. (1)

Used in situations where registration is necessary but where credit is not needed. Replaces arbitrary enrollment in reading and conference research, thesis, dissertation, etc. Used by students when taking comprehensive examinations, defending the thesis or dissertation, fulfilling the continuous enrollment requirement in doctoral programs. Credit is not awarded and no grade is assigned.

#### 598 Special Topics. (1-4)

Topic courses not offered in regular course rotation—e.g., new courses not in the catalog, courses by visiting faculty, courses on timely topics, highly specialized courses responding to unique student demand.

#### 599 Thesis. (1-12)

Supervised research focused on preparation of thesis, including literature review, research, data collection and analysis, and writing.

### **792 Research. (1-15)**

Independent study in which a student, under the supervision of a faculty member, conducts research that is expected to lead to a specific project such as a dissertation, report, or publication. Assignments might include data collection, experimental work, data analysis, or preparation of a manuscript.

### **799 Dissertation. (1-15)**

Supervised research focused on preparation of dissertation, including literature review, research, data collection and analysis, and writing.

The preceding courses are described in announcements of the Graduate College and are also available in the respective departments. Under special circumstances, arrangements may be made at the dean's request, through the approval of the senior vice president and provost, to increase the standard semester hours of credit.

**Visiting Student Program.** The numbers 597, 697, and 797 in the LAW prefix have been reserved for the Visiting Student Program in the College of Law.

## **SPECIALIZED PREFIXES**

**Elementary Education Program Courses.** Some elementary education methodology courses use the prefix EDB for purposes of registration. These courses are reserved for students admitted to professional programs. EDB courses are converted to permanent ASU education courses (with other prefixes) following the drop-add period, as determined by the registrar's calendar.

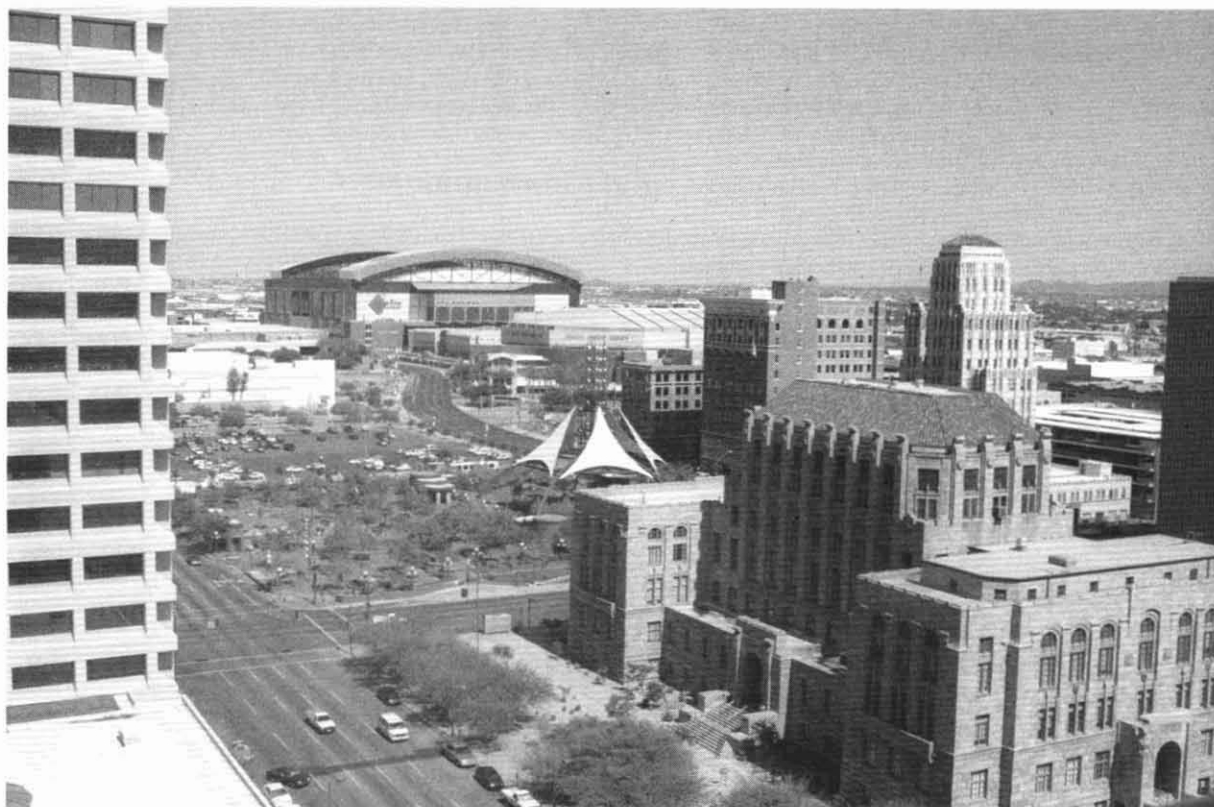
**Graduate College Courses.** Courses with the prefix GRD numbered 791 are reserved for doctoral students participating in the Preparing Future Faculty (PFF) program administered by the Graduate College. PFF students are required to take one semester hour for each of the semesters they are enrolled in the program. Students enroll for the first-year exploratory phase. Those accepted into the second-year participatory phase enroll for one semester hour each semester.

**International Program Courses.** Courses with the prefix IPO numbered 495 and 595 are reserved for International Programs study abroad and exchange programs. For most programs, participating students register for 18 semester hours. Following completion of an international program, undergraduate students receive credit for the study completed, with a minimum of 12 semester hours and a maximum of 18 semester hours; graduates with a minimum of six semester hours and a maximum of 12 semester hours.

IPO courses numbered 495 and 595 are converted to ASU credit for recording courses taken abroad.

IPO courses numbered 494 and 598 may be taken for one semester hour. Students register for these courses under the title "Study Abroad." At the conclusion of the program and the transfer of overseas courses to the students' ASU records, a grade of "Y" is entered for the course.

For some special international programs, students register and receive credit for fewer semester hours.



Downtown Phoenix

Tim Trumble photo

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# Undergraduate Enrollment

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Arizona State University shares with other colleges and universities a tradition of service and academic excellence that is hundreds of years old. Its purpose is the exchange of knowledge and the pursuit of wisdom. ASU is committed to providing a setting where faculty and students are challenged to exchange ideas and information with that atmosphere of intellectual honesty.

The university offers its students unique opportunities to enjoy both a rich cultural heritage and a diverse student population. Anyone giving evidence of suitable preparation, by way of acceptable academic credentials, is welcome to the university without regard to race, religious creed, or national origin.

Under the constitution and the laws of the State of Arizona, jurisdiction over ASU has been vested in the Arizona Board of Regents. The regents, in turn, grant broad legal authority to the president, the administration, and the faculty to regulate student life within reasonable limits.

By enrolling, a student voluntarily assumes certain obligations of conduct and performance. These obligations include acting with honesty, integrity, and fairness in a campus and community activities. They also include avoiding certain behaviors, such as, the irresponsible use of alcohol, the use, possession, or distribution of illegal drugs, and verbal or physical assaults. Should a student intentionally or inadvertently become involved in questionable campus-related actions or activities, the university will investigate the circumstances and will enforce its standards of conduct through prescribed procedures contained in the *Student Code of Conduct*.

The primary purpose for the *Student Code of Conduct* is to set forth the standards of conduct expected of students who choose to join the university community. Students and student organizations are expected to become familiar with and adhere to this code. Violations of the *Student Code of Conduct* will result in university disciplinary action being taken and appropriate sanctions being imposed for the misconduct. Copies of the *Student Code of Conduct* are available in the Office of Student Life, SSV 263.

The university further reserves the right to take necessary and appropriate action to protect the safety and welfare of the campus community and will cooperate with appropriate law enforcement agencies in their efforts to ensure a safe and secure environment.

## STUDENT SERVICES AT ASU

Arizona State University is a richly diverse academic setting with more than 49,000 students. The ASU student may be a traditional 18- to 24-year-old, a recent high school graduate, a community college transfer, someone returning to college to pursue a degree, or a professional studying for an advanced degree or career change. The ASU student may live in residence halls, on-campus housing for sororities or fraternities, or in one of the many communities in the

metropolitan Phoenix area. Each of the 50 states and more than 100 countries have students enrolled at ASU.

The university is organized into several distinct administrative areas. Student Affairs, one of these areas, is responsible for the delivery of a variety of services and developmental programs in support of students' educational pursuits. These programs and services are based upon human developmental research that advocates that a person develop culturally, emotionally, intellectually, morally, physically, psychologically, socially, and spiritually.

Special attention is given not only to the recruitment of a high-achieving, culturally diverse student body, but also to the creation of an energetic campus environment that both catalyzes the mature development and advances the academic endeavors of students.

Enrollment services to students begin with recruitment, admissions, student financial assistance, on-campus housing, and registration programs. Student Affairs encourages students to explore the facilities, services, and human resources available. ASU departments enriching students in their educational experience include Career Services, Counseling and Consultation, the Memorial Union, Recreational Sports, Residential Life, Student Development, the Student Health and Wellness Center, Student Life, and Student Media. Each of these areas provides specialized learning opportunities contributing to an environment that fosters both personal and academic growth.

## Undergraduate Admission

Arizona State University welcomes an application for admission from any individual seeking to benefit from the university's broad spectrum of educational programs and services.

For information and application materials, prospective students may call 480-965-7788, access the Web site at [www.asu.edu/admissions](http://www.asu.edu/admissions), or write:

UNDERGRADUATE ADMISSIONS  
ARIZONA STATE UNIVERSITY  
PO BOX 870112  
TEMPE AZ 85287-0112

Undergraduate Admissions offers tours of ASU, University Information Sessions, and admission appointments Monday through Friday (except days that are official university holidays). For more information, call 480-727-7013.

Requests for specific information relating to academic programs or student services should be addressed to the appropriate department, school, division, or college.

## Admission Procedures for Freshman and Transfer Applicants

Individuals interested in admission to an undergraduate program at ASU need to have the following items on file at Undergraduate Admissions. Non-U.S. citizens should see

"International Student Admissions," page 63, for additional requirements: the required application, fee, official transcripts, and test scores

**Application for Admission.** Prospective students must complete and sign the Application for Undergraduate Admission. As with other state-supported colleges and universities, ASU distinguishes between resident and nonresident students with regard to tuition. Residents of Arizona are required to provide residency information, which is part of the admission application. Any student who does not provide residency information is classified as a nonresident for tuition purposes. For more information, call the Residency Classification Office at 480 965 7712.

Students who are admitted for a specific semester and do not enroll must submit a new application (and application fee for nonresident applicants) if they wish to apply for a subsequent semester. All documents are destroyed one year after the semester for which the student has applied if the student is not enrolled in a degree program. Any misrepresentation or falsification on the admission application, including failure to report any college or university attendance, is cause for cancellation of enrollment and any credits earned.

**Application Fee.** All applicants applying as nonresidents or residing outside Arizona must submit a \$50 nonrefundable application fee.

**Official Transcripts.** Applicants are responsible for requesting transcripts from each educational institution attended. Official transcripts must be mailed directly to Undergraduate Admissions by the records office of the issuing institution. ASU does not accept transcripts sent or carried by hand by the applicants themselves or transmitted by facsimile (fax machine). High school transcripts must show GPA and date of graduation. ASU requires an English translation of all foreign language transcripts.

**ACT or SAT.** See "Freshman Applicants," on this page, to determine which test scores ASU requires. Undergraduate Admissions may investigate any test score that is inconsistent with a student's academic record or previous scores.

A report of the test scores should be sent to Undergraduate Admissions directly from

ACT  
PO BOX 168  
OWA CITY, IA 52243 0168

or the

COLLEGE BOARD ADVISORY TESTING PROGRAM  
PO BOX 592 R  
PRINCETON, NJ 08542 0590

**Application Time Line.** ASU urges applicants to have their materials sent as soon as possible to enable university officials to make an early decision concerning the applicant's admission and to permit the student to take part in preregistration and orientation. Applicants should allow four weeks after all necessary items are received for an admission decision to be made.

**Early Notification Date.** Applicants whose files are complete: all necessary documentation has been received by November 1 receive notification by December 1. Applicants whose files are complete by December 1 receive notification by January 15.

**Admission Before Receipt of Final Transcript.** Admission may be granted to high school seniors who submit a six-semester or seven-semester transcript that shows academic quality or rank in class in keeping with admission standards and who complete the steps in the undergraduate admission procedures. Admission is official when verification of high school graduation showing the final GPA and the date of graduation has been received in the mail by Undergraduate Admissions directly from the high school. Final transcripts must be received a minimum of 45 days in advance of the start of the semester. An admission may be canceled if the final verification shows that the applicant has not met the university requirements for admission or that more than two deficiencies remain.

Transfer applicants enrolled in other colleges and universities may be considered for admission on the basis of meeting all admissions requirements, except for a final transcript of work in progress. This final transcript must be sent to Undergraduate Admissions directly from the issuing institution immediately after the work in progress has been completed. Transcripts carried by hand are not accepted. *Admission is official only after the final transcript has been received showing that the applicant has met the university admission requirements.* In the event the applicant does not qualify or has falsified application documents, admission and registration are canceled, and any registration fees paid are returned.

### Undergraduate Admission Standards

The Arizona Board of Regents establishes undergraduate admission standards for the university in general. *Particular colleges, divisions, schools, and departments within the university may establish stricter standards, which are given in the respective sections of the catalog; it should be carefully studied by planning to enroll in any of these programs.*

### Freshman Applicants

Undergraduate Admissions requires freshman applicants' official high school records. To be eligible for admission to ASU, a freshman must have graduated from a recognized high school with satisfactory scholarship defined as meeting both the general aptitude and basic competency requirements shown in the "Basic Competency Requirements" table, page 60, and the "General Aptitude Requirements for Freshmen" table, page 61.

Applicants with a maximum of one deficiency in no more than two competency areas—provided the competency areas are not both math and science—may be admitted with conditions subject to removing the deficiencies within two calendar years of university enrollment. See "Meeting Basic Competencies," page 76, for an explanation of procedures to meet these competencies.

If the applicant is unable to meet these specific admission requirements, it is possible to file a letter of appeal and three letters of recommendation with the Undergraduate Admissions Board:

## UNDERGRADUATE ENROLLMENT

Basic Competency Requirements			
High School Courses	Test Scores		College Courses
<b>English</b> Four years high school: English composition/literature-based	<i>or</i>	Minimum test score: ACT English 21 or SAT I verbal 530	<i>or</i> One transferable three semester-hour college level course in English composition
<b>Fine Arts</b> One unit of fine arts or a combination of two semesters of fine arts	<i>or</i>	NA	<i>or</i> One transferable three-semester hour college level fine arts course
<b>Foreign Language</b> Two years of the same foreign language	<i>or</i>	NA	<i>or</i> One year of transferable college study in the same foreign language
<b>Laboratory Science</b> Three years high school, one each from three of the following: biology, chemistry, earth science, integrated sciences, or physics. An advanced-level course may be substituted for one subject area.	<i>or</i>	Two years high school lab science (biology, chemistry, earth science, physics) plus minimum SAT II: subject test score on one of the following: Biology Achievement 590 Chemistry Achievement—600 Physics Achievement—620 ACT Science Reasoning 20 The test score may not be from any subject from which high school credit was earned.	<i>or</i> Three transferable four-semester hour college level lab science courses in different subject areas. An advanced-level course may be substituted for one subject area.
<b>Mathematics</b> Four years high school: one year Algebra I, one year Geometry, one year Algebra II, and one year advanced mathematics	<i>or</i>	Minimum test score: ACT Math 24 or SAT I Math 540	<i>or</i> One transferable three-semester hour college level course in mathematics for which Algebra II is a prerequisite
<b>Social Science</b> Complete both A and B. A. One year high school American history B. One year high school social science (e.g., anthropology, European history, geography, government, world history)	<i>or</i>	Minimum SAT II: subject test score on American History and Social Studies Achievement 560 Minimum SAT II: subject score on World History Achievement 580	<i>or</i> One transferable three semester-hour college level American history course One transferable three semester hour college-level social science course

UNDERGRADUATE ADMISSIONS BOARD  
ARIZONA STATE UNIVERSITY  
PO BOX 870112  
TEMPE AZ 85287 0112

The decision of the board is final and any conditions set by the board for future admission supersede all other admission criteria or exceptions. The applicant must be able to meet at least one of the following criteria to be considered for appeal:

1. an upward grade trend during the high school career or an upward grade trend during the senior year,
2. positive recommendations from secondary school administrators, faculty, or counselors based on considerations such as academic potential, work experience, and leadership ability;

3. an average score of 50 or greater on the General Education Development (GED) examination, or
4. completion of at least 12 semester hours of college freshman level academic studies at a community college or at a university or both with a GPA of 2.50 or higher on a 4.00 scale in courses in English, social sciences, mathematics, physical or natural sciences, foreign languages, fine arts, or the humanities

### Transfer Applicants

Transfer applicants must submit official academic records from all colleges and universities attended. Transfer applicants under the age of 22 who have not completed an Arizona General Education Curriculum (AGEC) or associate's degree or higher must submit official high school records and meet basic competency requirements. Students who

### General Aptitude Requirements for Freshmen

Residency Classification	Class Rank	Composite Score					
		ACT		SAT		GPA 4.00 A) <sup>1</sup>	
Arizona residents <sup>2</sup>	top quarter	or	22	or	1040	or	3.00 competency GPA
Nonresidents <sup>3</sup>	top quarter	or	24	or	1110	or	3.00 competency GPA

The GPA is calculated on courses that are used to fulfill competency requirements.

Resident freshmen who carry a competency GPA from 2.50 to 2.99 or who rank in the top 26–50 % of the graduating high school class may be admitted with conditions.

All nonresident freshmen who believe they have had a strong high school background and who rank in the top 26–50 % of the graduating classes or who carry a competency GPA from 2.50 to 2.99 may apply and are considered on a case-by-case basis. Based on the review, the applicants may be admitted with conditions, deferred until additional course work is completed, or denied.

have not completed first semester freshman composition from a regionally accredited institution must also submit official SAT or ACT test scores.

**Arizona Applicants.** An Arizona applicant for transfer admission must have a cumulative GPA of 2.00–4.00 (A) or higher in all work undertaken at previous institutions of higher learning. A minimum of 24 college or university transferable semester hours must have been earned to be considered a transfer applicant.

Arizona transfer applicants must have the respective minimum GPAs to be admitted to the professional programs in the following areas: computer science 2.50; construction 2.25; economics 2.50; engineering 2.50; and technology 2.25. Other academic units may have different GPA requirements to enroll in junior or senior level courses.

**Nonresident Applicants.** A non-Arizona applicant for transfer admission must have a cumulative GPA of 2.50 or higher on a 4.00–A scale in all work undertaken at previous institutions of higher learning. Applicants who have at least a 2.00 on a 4.00–A scale and who believe that they have a strong academic record are considered on a case-by-case basis.

#### Transfer Credit

Credit is awarded for traditional course work successfully completed at institutions of higher learning as indicated by ASU and the Arizona Board of Regents. *Whether the specific credits can be applied toward a degree depends on the requirements of the department/division, school, or college in which the student is enrolled.* There are several qualifications:

1. Transfer credit is not given for courses in which the lowest passing grade ("D" or a failing grade) was received.
2. While some courses successfully completed but evaluated on nontraditional grading systems (e.g., pass/fail) may be acceptable for transfer, colleges in the university may not accept such credits to fulfill graduation requirements.
3. Grades and honor points earned at other colleges and universities are considered for admission but are not

included in computing the student's cumulative GPA at ASU.

The following types of credits cannot be transferred to ASU:

1. credits awarded by postsecondary institutions in the United States that lack candidate status or accreditation by a regional accrediting association;
2. credits awarded by postsecondary institutions for life experience;
3. credits awarded by postsecondary institutions for courses taken at noncollegiate institutions (e.g., governmental agencies, corporations, industrial firms);
4. credits awarded by postsecondary institutions for noncredit courses, workshops, and seminars offered by other postsecondary institutions as part of continuing education programs; and
5. credit for active service or courses that were taken through the military.

Acceptable academic credits earned at other institutions that are based on a different unit of credit than the one prescribed by the Arizona Board of Regents are subject to conversion before being transferred to ASU. Once a transfer course equivalency is determined, it stands unless the student changes majors and the course is required by the new major.

**Veterans Exception.** By Arizona statute, no failing grades received by a veteran at an Arizona university or community college before military service may be considered when determining admissibility. This exception applies only to veterans who

1. are honorably discharged;
2. have served in the armed forces of the United States for a minimum of two years; and
3. have previously enrolled at a university or community college in Arizona.

Military service records must be submitted, including form DD 214.

**Community Colleges.** A maximum of 64 semester hours are accepted as lower division credit when transferred from community, junior, or two-year colleges.

## UNDERGRADUATE ENROLLMENT

### General Aptitude Requirements for College Transfers<sup>1</sup>

Residency Classification	Transferable Semester Hours	GPA 4.00 A	Materials Required
Arizona residents	1-23	2.00 college GPA plus general aptitude requirements for freshman plus competency requirements	Application, college and high school transcripts, and ACT or SAT scores
	24 or more	2.00 college GPA plus competency requirements	Application, college and high school transcripts, and ACT or SAT scores
Nonresidents <sup>2</sup>	1-23	2.50 college GPA plus general aptitude requirements for freshman plus competency requirements	Application, college and high school transcripts, and ACT or SAT scores
	24 or more	2.50 college GPA plus competency requirements	Application, college and high school transcripts, and ACT or SAT scores

Students 22 years of age or older and students who have completed an AGEC, an associate's, or a higher degree at the time of enrollment do not need to submit high school transcripts or test scores.

- <sup>1</sup> All nonresident transfer students who have earned a 2.00–2.49 cumulative GPA are encouraged to apply and are considered on a case-by-case basis. Based on this review, the applicants may be admitted with conditions, deferred until additional requirements are completed, or denied.

**Students Attending Arizona Community Colleges.** To determine the equivalency of courses offered by Arizona community colleges and courses offered at ASU, a student should refer to the *Course Applicability System* in consultation with an academic advisor. For more information, access the Web site at [az.transfer.org/cas](http://az.transfer.org/cas).

The *Course Applicability System* addresses only the acceptability of a course, not its applicability to any specific major, thus the need to consult with an advisor. Community college students who plan to transfer to ASU at the end of their first or second years are strongly advised to follow the ASU transfer guides when taking courses to meet the requirements of the curriculum they select. ASU transfer guides are available at [www.asu.edu/provost/articulation](http://www.asu.edu/provost/articulation). Provided college attendance has been continuous, students are permitted to follow the degree requirements specified in the ASU catalog in effect at the time they began community college work. See "Guidelines for Determination of Catalog Year," page 79.

### Arizona General Education Curriculum (AGEC)

The Arizona public community colleges and universities have agreed upon a common structure for a general education core. This curriculum provides students attending any Arizona public community college with the opportunity to build a general education program that is transferable to any other state institution without loss of credit. This common agreement is called the Arizona General Education Curriculum (AGEC).

The AGEC is composed of 35 semester hours of lower division general education course work in which a student may prepare for transfer.

The AGEC has three forms: AGEC A, AGEC B, and AGEC S. Refer to [www.az.transfer.org/cas/atass/studentagec.html](http://www.az.transfer.org/cas/atass/studentagec.html) for a detailed description of each AGEC.

Community colleges are responsible for certifying completion of the AGEC on the official institutional transcripts.

Completion of the appropriate AGEC will fulfill university lower division general education requirements of the baccalaureate degree with which the AGEC articulates but may not apply to degrees articulated with the Transfer

Guide Pathway TG XR. Students completing the AGEC will still be required to fulfill lower division program requirements and prerequisites within their college and major/minor area of study. To complete a degree program most efficiently, students should select courses that concurrently satisfy AGEC and major requirements.

Completion of any AGEC guarantees admission to the university provided that a GPA of 2.00 for Arizona residents or 2.50 (for nonresidents) has been achieved. AGEC completion, however, does not guarantee admission to any specific university program. Majors in the professional fields (e.g., architecture, engineering, business, fine creative arts, or health professions) and sciences have significant prerequisites and/or program requirements that must be completed before a student may be admitted to upper-levels or course work. Community college students who are undecided about which of the universities they plan to attend or what program of study they intend to pursue are advised to explore educational options while they complete the AGEC. In all cases, students have the responsibility for selecting general education course work that is relevant to the requirements of their intended major and degree.

Students who complete both the AGEC and an approved associate's degree will be assigned junior class standing by the state universities. Junior class standing is based on the number of semester credits a student has earned and does not necessarily indicate the remaining number of semester credits needed to complete degree requirements. Course prerequisites, major requirements, and upper division requirements continue to be specified by each university. Appropriate sequencing of courses and timely completion of course prerequisites are essential to ensure efficient progress toward a baccalaureate degree. Students who have identified the university they plan to attend and/or a major area of study are advised to fulfill requirements and prerequisites identified by these programs through transfer guides and/or curriculum check sheets provided by the state universities. The AGEC does not replace articulation agreements developed to enhance the transfer process between specific institutions, e.g., Associate Transfer Partnership Degrees.



ATP. Nor does the AGEC eliminate the possibility that students who have identified the university they plan to attend and/or a major area of study will follow transfer guides provided by the state universities.

**Appeal Procedure.** Transfer students who feel they have been unjustly denied credit for courses they have taken may appeal to the standards committee of the colleges in which they have enrolled. This procedure does not apply to community college transfer of credit greater than the 64-hour maximum. The decision of this committee is final.

An applicant for transfer admission whose academic record fails to meet ASU admission standards is denied admission. Such an applicant, however, may write a letter of appeal accompanied by three letters of recommendation to the Undergraduate Admissions Board for reconsideration of his or her application.

UNDERGRADUATE ADMISSIONS BOARD  
ARIZONA STATE UNIVERSITY  
PO BOX 870112  
TEMPE AZ 85287 0112

To be considered, appeals must be received at least ten days in advance of the board's meeting date. The decision of this board is final and any conditions set by the board for future admissions supersede all other admission criteria or exceptions.

### International Student Admissions

To comply with Immigration and Naturalization Services regulations, any student who plans to attend ASU on an F-1 or J-1 visa must

1. have a minimum GPA of 3.00-4.00 (A) from secondary school course work if a freshman applicant, or have a minimum GPA of 2.50-4.00 (A) from college or university course work if a transfer applicant;
2. meet basic competency requirements if he or she attended four years of high school in the United States;
3. submit a financial statement not more than six months old from a financial institution assuring adequate resources to support himself or herself while in residence at the university;
4. have all required admissions materials and credentials reach Undergraduate Admissions by May 1 if applying for the fall semester or October 1 if applying for the spring semester (an English translation of all foreign language documents is required);
5. pay a nonrefundable application fee of \$50 in U.S. funds; and
6. meet all appropriate immigration standards and requirements.

**Credit from a Foreign Institution.** Transfer credits or advanced standing is granted for academic course work completed at foreign tertiary institutions that are either recognized by the home government/Ministry of Education as a degree-awarding institution or attached to a regionally accredited U.S. college or university as a Study Abroad Program. No credits awarded for English composition courses

completed at foreign institutions (credit may be awarded at the discretion of ASU when the credit was completed in a country whose native language is English). There are no advanced credits for the international affiliation programs overseas unless they comply with this general policy. For more information, call Undergraduate Admissions at 480 365-2688.

**Nondegree International Applicants.** All students with F-1 and J-1 visas must maintain full-time status while studying in the United States. Undergraduate full-time status is defined as a minimum of 12 semester hours. However, students with F-1 and J-1 visas may be permitted to take a maximum of six semester hours at ASU as a nondegree student while maintaining full-time status at other higher education institutions or in the American English and Culture Program (AECP) at ASU. Approval by the responsible office at the other institution and/or AECP is required to ensure that the student maintains full-time status in compliance with applicable U.S. laws and regulations.

**TOEFL.** Applicants whose native language is not English (identified by the U.S. Department of State Bureau of Public Affairs) must provide evidence of English language proficiency as indicated by acceptable scores on the Test of English as a Foreign Language (TOEFL) as follows:

The TOEFL requirement for general admission (preprofessional) to the university is 500 (paper-based) or 73 (computer-based). The TOEFL requirement for admission to the professional programs in the College of Engineering and Applied Sciences and the College of Nursing is 550 (paper-based) or 713 (computer-based).

The following exceptions apply to the TOEFL requirement.

1. Applicants who have earned a bachelor's degree from a regionally accredited college or university in the United States are exempt from the TOEFL.
2. Applicants who have completed 48 transferable semester hours at a U.S. college or university including two semesters' six semester hours of freshman composition that satisfy the ASU First Year Composition requirement with a cumulative GPA of 2.50 or higher are exempt from the TOEFL requirement.
3. Applicants who have completed four years of high school in a U.S. high school may be admitted to ASU without a TOEFL score but are subject to competency and aptitude requirements.
4. Applicants who have completed their junior and senior years of high school in a U.S. high school may be admitted with a minimum SAT verbal score of 330 or an ACT English score of 23 in lieu of a TOEFL score.

### American English and Culture Program

The American English and Culture Program (AECP) features an intensive course of study designed for adult international students who desire to become proficient in English as a second language for academic, professional, or personal reasons. Inquiries about the curriculum, fee schedule, and other topics should be addressed to

## UNDERGRADUATE ENROLLMENT

AMERICAN ENGLISH AND CULTURE PROGRAM  
ARIZONA STATE UNIVERSITY  
PO BOX 873504  
TEMPE AZ 85287 3504

Acceptance into the AECP is separate from admission to the university. For more information, see "American English and Culture Program" page 709.

### Applicants with Disabilities

Some classroom accommodations, such as Braille, audio tapes, interpreting services, enlarged print, and lab material conversions, may require an extended preparation time, i.e., one semester. For this reason, applicants with disabilities are encouraged to contact Disability Resources for Students (DRS) upon application to the university to request information regarding disability documentation eligibility requirements and deadlines to ensure accommodations for the beginning of the semester. If students miss DRS deadlines, DRS attempts to provide, but cannot guarantee, appropriate accommodations. Effective alternatives may be necessary. *Disability determination by DRS is confidential and cannot affect eligibility for admission.*

Call 480 965 1234 (voice) or 480 965 9000 (TTY).  
Access the Web site at [www.asu.edu/drs](http://www.asu.edu/drs), or write

DISABILITY RESOURCES FOR STUDENTS  
ARIZONA STATE UNIVERSITY  
PO BOX 873202  
TEMPE AZ 85287 3202

### Admission of Undergraduate Nondegree Applicants

Any high school graduate is invited to enroll for eight or fewer semester hours per semester of undergraduate course work as a nondegree student. Students currently enrolled in high school and persons under the age of 18 may be admitted as nondegree students by submitting official ACT or SAT scores that meet the general aptitude requirements of the university. Persons admitted as first-degree students for a specific year and term must remain nondegree until the next semester.

Anyone interested in admission as a nondegree undergraduate student at ASU must submit to Undergraduate Admissions (1) a Nondegree Undergraduate Application for Admission including residency information and (2) a \$50 nonrefundable application fee for applicants applying as nonresidents or residing outside Arizona. Applicants who are not high school graduates or who are younger than 18 must also submit ACT or SAT scores.

No more than 15 hours of completed nondegree work may be applied to a degree program. A nondegree student who decides to work toward a bachelor's degree must *apply for admission to a degree program* with Undergraduate Admissions and meet normal admission requirements.

Once registered in a regular degree program, a student is not permitted to register again in a nondegree status. Nondegree students are not eligible to receive most types of financial aid, nor are they eligible to receive certain benefits, such as veteran benefits.

### Steps from Admission to Registration

**Certificate of Admission.** After being admitted, students receive a Certificate of Admission, an Immunization Verification form, and publications that contain information about orientation programs. International students additionally receive a Certificate of Eligibility (Form I-20 or IAP-66), which enables them to apply for the appropriate visa.

Upon receipt, students should check their admission information for accuracy and report any errors or changes to Undergraduate Admissions at 480 965 7788.

**Orientation.** University orientation programs for new students and their parents are provided at numerous times during the year, including the beginning of each semester. Each orientation program includes academic advising, campus tours, special events, and an introduction to university resources and procedures. Parent programs are also included. Newly admitted students are sent information preceding each orientation program. Students are strongly encouraged to attend orientation activities.

**Immunization Requirements.** Every newly admitted student born after December 31, 1956, must provide proof of measles rubella immunity to the Student Health and Wellness Center. *Students are not permitted to register until proof of immunity to measles rubella is on file with the Student Health and Wellness Center.*

The following proof of measles rubella immunity is considered adequate: (1) two vaccinations of MMR (measles, mumps, rubella), at least one of which must have been given after December 31, 1979; or (2) a copy of laboratory test results that show immunity to both measles and rubella.

Measles rubella immunity proof can be faxed to the Student Health and Wellness Center at 480 965 8914. Verification that the Student Health and Wellness Center received a student's proof of measles rubella immunity can be confirmed by going to [www.asu.edu/registrar](http://www.asu.edu/registrar) or the Web two working days after the information has been faxed to the Student Health and Wellness Center.

In addition, it is recommended that students also be immunized against mumps, tetanus, hepatitis B, diphtheria, and meningitis. Special populations may need other vaccinations. For more information on measles requirements, visit the Student Health and Wellness Center's Web site at [www.asu.edu/health](http://www.asu.edu/health).

**International Student Enrollment.** International students must complete these additional steps:

*Student Health Insurance.* All F-1 or J-1 visa students must have health and accident insurance through ASU, and the cost for insurance is automatically added to their registration bill. *Not privately arranged insurance accepted in place of the ASU insurance.* However, students who have health insurance through their government or sponsoring agency may qualify for an insurance waiver if that coverage has been preapproved by the university. No waivers may be granted after the first two weeks of classes. To find out if their sponsor is on the preapproved list, sponsored students and others who fall into this category are encouraged to contact the Student Health and Wellness Center at 480 965

2411 or visit the Student Health and Wellness Center Web site at [www.asu.edu/health](http://www.asu.edu/health).

All international students must report to the International Student Office in Student Life upon arrival on campus.

## Special Programs for Advanced Placement and Credit

No more than 60 hours of credit are awarded for any or all programs, including ASU comprehensive and proficiency examinations. In these categories, only credit earned by comprehensive examination counts toward the resident credit requirement for graduation.

**Advanced Placement.** Students who have taken an advanced placement AP course of the College Entrance Examination Board (CEEB) in their secondary school and who have taken an AP Examination of the CEEB may receive university credit. No credit is given for any examination with a score of 2 or 1. There is no limit to the number of AP credits that can be used to meet the General Studies requirement, including the requirements in natural sciences (SQ and SG), and literacy and critical inquiry (L).

When the scores are received by the university directly from the CEEB, credit is awarded as shown in the "Advanced Placement Credit" table, page 66.

**College-Level Examination Program (CLEP).** Students who have taken a College Level Examination of the College Entrance Examination Board may receive university credit. The table of CLEP credit applies to all students enrolled in the university for the first time in August 1975 and any student enrolling thereafter (see the "CLEP Credit" table, page 6). CLEP examination credit is not given where (1) it duplicates credit previously earned by the student at the university or accepted by the university for work done elsewhere or (2) it is more elementary than a course in which the student has already received credit. All examinations are given monthly by University Testing Services.

There is no limit to the number of CLEP credits that can be used to fulfill the General Studies requirement. The General Studies requirement in natural sciences (SQ and SG) and literacy and critical inquiry (L) are not satisfied by CLEP (see the "General Studies Courses" table, page 86).

**General Examinations.** To obtain credit or placement, students must receive a standard score of 50 (Computer Based Training [CBT] scale) or higher for the General Examinations, except for English Composition with Essay, on which students must receive a standard score of 610 (1978 scale/500 (1986 scale), or 50 (CBT scale). *Students who have completed 60 semester hours of credit are not eligible to receive any credit for the CLEP General Examinations.*

**Subject Examinations.** A standard score of 50 (except Spanish, French, or German) or higher must be received to obtain credit for any subject examination. The completion of 60 semester hours does not preclude eligibility for additional credit for subject examinations.

*All equivalency is subject to future review and possible catalog change.* For more information, call University Testing Services at 480-965-7146 or stop by EDB 301.

### International Baccalaureate (IB) Diploma/Certificate.

Students who present an International Baccalaureate Diploma Certificate may qualify for university credit, depending on the level of the examination and the grade received. Arizona State University grants credit for higher level courses only. A grade of 5 qualifies the student to receive credit for up to two introductory courses while a grade of 4 qualifies a student to receive credit for one introductory course. No credit is awarded for English as a Second Language (English B). Credit is awarded according to the "International Baccalaureate Diploma/Certificate Credit" table, page 68.

**Comprehensive Examinations.** A comprehensive examination is intended to permit a student to establish academic credit in a field in which the student has gained experience or competence equivalent to an established university course. Applications are given only for courses listed in the current catalog and only for courses in which a comprehensive examination can serve as a satisfactory measure of accomplishment.

A number of restrictions apply. The student must be enrolled at ASU with *no more than 100 semester hours of credit earned.* The examinations must be taken during the first two semesters in residence in a degree program at the university. *No more than 60 semester hours of credit may be established by comprehensive examinations* (including AP, IB, and CLEP credit) and independent learning courses.

Comprehensive examinations may not be taken in any course in which the student has been given admission credit or transfer credit from any educational institution. Examination credit may not be received for a lower level or prerequisite course when credit has already been received in a higher level course within the same field.

The decision on the suitability of course material for a comprehensive examination, the development of a comprehensive examination, and the administration of an examination are strictly departmental functions. An application is for one course only. The student should complete an application form with the number, title, and number of semester hours for the course. When completed, the application must be approved by the student's advisor and the chair of the department responsible for offering the course.

The student must then pay the stated fee for such examinations at Cashiering Services. The receipt must be taken to the departmental office.

The examination is prepared by the instructor who normally conducts the course, and it is comprehensive in nature and scope. The instructor and other experts designated by the chair grade the examination, using letter grades "A," "B," "C," "D," or "E." If the grade is "C" or higher, a mark of "Y" is entered on the student's permanent record; otherwise, no entry is made. Credit by examination is indicated as such on the record. The student is notified by mail of the result of the examination. In cases of failure ("D" or "E"), the student is not given an opportunity to repeat the examination.

A student pursuing a second baccalaureate degree may not receive credit by comprehensive examination, but, with prior approval of the college, the student may use the

# UNDERGRADUATE ENROLLMENT

## Advanced Placement Credit

Examination	Score	Semester Hours	Equivalency
Art—History	5 or 4	6	ARS 101, 102
	3	3	ARS 101 or 102
Art—Studio—Drawing	5	6	ART 111, 112
	4	3	ART 111
Art—Studio—General	5	6	ART 111, <sup>1</sup> 112
	4	3	ART 112
Biology	5 or 4	8	BIO 187, 188
	3	4	BIO 187
Chemistry	5 or 4	9	CHM 113, 115
	3	4	CHM 113
Computer Science A	5 or 4	3	CSE 100
Computer Science AB	5 or 4	6	CSE 100, 200
Economics—Introductory Macroeconomics	5 or 4	3	ECN 111
Economics—Introductory Microeconomics	5 or 4	3	ECN 112
English—Language and Composition	5 or 4	6	ENG 101, 114 eligible for ENG 102
English—Literature and Composition	5 or 4	6	ENG 101, 204 eligible for ENG 102
Environmental Science	5 or 4	3	PLB 322
French—Language	5	14	FRE 201, 202, 311, 312
	4	11	FRE 201, 202, 311
	3	8	FRE 201, 202
French—Literature	5	18	FRE 111, 201, 202, 321, 322
	4	12	FRE 111, 201, 202
	3	8	FRE 201, 202
German—Language	5	14	GER 201, 202, 311, 312
	4	11	GER 201, 202, 311
	3	8	GER 201, 202
History—American or European	5 or 4	6	HST 109 and 110 <i>or</i> HST 103 and 104
Latin—Language	5	16	LAT 101, 102, 201, 202
	4	12	LAT 101, 102, 201
	3	8	LAT 101, 102
Mathematics—Calculus AB	5, 4, or 3	4	MAT 270
Mathematics—Calculus BC	5 or 4	8	MAT 270, 271
	3	4	MAT 270
Music	5 or 4	3	MTC 125
Physics B	5 or 4	6	PHY 111, 112
	3	3	PHY 111
Physics C—Electricity and Magnetism	5 or 4	3	PHY 112 <sup>2</sup>
Physics C—Mechanics	5 or 4	3	PHY 111 <sup>2</sup>
Political Science—American Government and Politics	5 or 4	3	POS 110
Political Science—Comparative Government and Politics	5 or 4	3	POS 150
Psychology	5 or 4	3	PGS 101
Spanish—Language	5	14	SPA 201, 202, 311, 312
	4	11	SPA 201, 202, 311
	3	8	SPA 201, 202
Spanish—Literature	5	15	SPA 111, 201, 202, 325
	4	12	SPA 111, 201, 202
	3	8	SPA 201, 202
Statistics	5 or 4	3	STP 226

<sup>1</sup> ART 115 credit may be awarded in place of ART 111 based on the School of Art's evaluation of 3D art submitted as part of the AP portfolio.

<sup>2</sup> Students may petition the department for additional credit and/or equivalencies based on laboratory and/or calculus content of their AP courses.

# SPECIAL PROGRAMS FOR ADVANCED PLACEMENT AND CREDIT

## CLEP Credit

Examinations	Semester Hours	Equivalency
<b>General</b>		
English Composition	0	With essay qualifies for ENG 105
Humanities	6	Elective credit
Mathematics	3	MAT 106
Natural Sciences	8	Elective credit
Social Sciences and History	6	Elective credit
<b>Subject</b>		
American Government	3	POS 110
American History—Early Colonization to 1877	3	HST 109
American History—1865 to the Present	3	HST 110
American Literature	6	ENG 241, 242
Analysis and Interpretation of Literature	3	Elective credit
Calculus with Elementary Functions	4	MAT 270
College Algebra (1993) (replaces College Algebra [1979])	3	MAT 117
College Algebra and Trigonometry	3	MAT 170
College French	4	FRE 101 (Students must score 39–48.)
College French	8	FRE 101, 102 (Students must score 49–53.)
College French	12	FRE 101, 102, 201 (Students must score 54–62.)
College French	16	FRE 101, 102, 201, 202 (Students must score 63 or higher.)
College German	4	GER 101 (Students must score 39–45.)
College German	8	GER 101, 102 (Students must score 46–50.)
College German	12	GER 101, 102, 201 (Students must score 51–59.)
College German	16	GER 101, 102, 201, 202 (Students must score 60 or higher.)
College Spanish	4	SPA 101 (Students must score 40–49.)
College Spanish	8	SPA 101, 102 (Students must score 50–54.)
College Spanish	12	SPA 101, 102, 201 (Students must score 55–61.)
College Spanish	16	SPA 101, 102, 201, 202 (Students must score 62 or higher.)
English Literature	3	Elective credit
Freshman College Composition (replaces College Composition and Freshman English)	0	With satisfactory essay qualifies for ENG 105
General Biology	8	BIO 187, 188
General Chemistry	9	CHM 113, 115
Human Growth and Development	0	No credit
Information Systems and Computer Applications	3	Elective credit
Introduction to Educational Psychology	0	No credit
Introductory Accounting	6	Elective credit
Introductory Business Law	3	Elective credit
Introductory Psychology	3	PGS 101
Introductory Sociology	3	SOC 101
Principles of Macroeconomics (replaces Introductory Macroeconomics)	3	ECN 111 (Students must score 50 or higher to receive credit.)
Principles of Management	0	No credit
Principles of Marketing	0	No credit
Principles of Microeconomics (replaces Introductory Microeconomics)	3	ECN 112 (Students must score 50 or higher to receive credit.)
Trigonometry	0	No credit
Western Civilization—Ancient Near East to 1648	6	HST 102, 103
Western Civilization—1648 to the Present	3	HST 104

## UNDERGRADUATE ENROLLMENT

### International Baccalaureate Diploma/Certificate Credit

Examination	Score	Semester Hours	Equivalency
Art/Design	7, 6, or 5	6	ART 111, 112
	4	3	ART 112
Biology	7, 6, or 5	8	BIO 187, 188
	4	4	BIO 188
Chemistry	7, 6, or 5	9	CHM 113, 115
	4	4	CHM 113
Economics	7, 6, or 5	6	ECN 111, 112
	4	3	ECN 111
English A	7, 6, or 5	6	ENG 101, 114
	4	3	ENG 114
English B	No credit	0	None
Foreign Language A or B*	7, 6, or 5	8	Foreign language 101, 102
	4	4	Foreign language 101
History—American	7, 6, or 5	6	HST 109, 110
	4	3	HST 109
History—European	7, 6, or 5	6	HST 103, 104
	4	3	HST 103
Mathematics	7, 6, 5, or 4	4	MAT 270
Physics	7, 6, or 5	8	PHY 111, 112, 113, 114
	4	4	PHY 111, 113

\* No credit is awarded if the language is the student's native language.

examination to waive a course requirement if a grade of "C" or higher is earned.

**Proficiency Examinations.** Proficiency examinations and auditions are given

1. to waive a course requirement;
2. to validate certain transfer credits in professional programs; and
3. to determine a student's ability in a field where competence is an important consideration.

Detailed information may be obtained from the dean's office of the college in which the student is registered.

### UNIVERSITY TESTING REQUIREMENTS

All new, transfer, or readmitted undergraduate students who plan to enroll for seven or more semester hours must meet one of the following testing requirements. *Students who fail to meet at least one of these requirements will not be allowed to register for any course the following semester.*

1. Take the ACT English or SAT verbal examination and have scores submitted to ASU.
2. Receive a score of 4 or 5 for the advanced placement examination in English offered by the College Entrance Examination Board and have scores submitted to ASU.
3. Take the CLEP general examination in English, earning a score that qualifies for placement in ENG 105, and have scores submitted to ASU.
4. Have previously taken ENG 101, 102, 105, 107, or 108 at ASU and received a grade of "D" or higher. If the course was taken before 1980, contact the

Recording Section, in SSV 142, before registering for classes.

5. Transfer a course equivalent to ENG 101, 102, 105, 107, or 108 with a grade of "C" or higher. An official transcript showing the grade must be received at ASU at least six weeks before registration. If a student transfers an equivalent composition course from a public community college or university in Arizona, the equivalency is automatically posted, and the student need not take further action. A student transferring a composition course from any other college or university must have the course evaluated for equivalency. See "First-Year Composition Requirement," page 79, for more information.
6. International students whose native language is not English must take ENG 107 (or WAC 107, followed by ENG 107 the next semester) in the first semester at ASU, unless they have taken and transferred an equivalent composition course from a college or university in the U.S. Such a course must be evaluated for equivalency by the Composition Office.

### Placement Examinations

**English.** New students and continuing, reentry, transfer, and nondegree students who have not taken any composition courses are placed in First-Year Composition courses according to their scores on the ACT English or SAT verbal tests.

*Note:* The ACT and SAT scoring systems have been modified. Shown in parentheses are equivalent ACT scores for tests taken before October 1989 and equivalent SAT scores for tests taken before April 1995.



## Academic Advising at ASU Main

College	Location	Telephone	Days	Hours <sup>1</sup>	Web Address
Academic Advising Services	UASB 129	480/965-4464	Mon., Wed. Tues., Thurs., Fri.	9 A.M.–6:30 P.M. 9 A.M.–5 P.M.	<a href="http://www.asu.edu/duas/cas">www.asu.edu/duas/cas</a>
Barrett Honors College	BEST C 100L1	480/965-9155	Mon.–Fri.	8 A.M.–5 P.M. <sup>2</sup>	<a href="http://www.asu.edu/honors">www.asu.edu/honors</a>
College of Architecture and Environmental Design	ARCH 141	480/965-3584	Mon.–Fri.	8:30 A.M.–noon, 1–4 P.M.	<a href="http://www.asu.edu/caed">www.asu.edu/caed</a>
College of Business	BA 109	480/965-4227	Tues. Other weekdays	8 A.M.–6:30 P.M. 8 A.M.–5 P.M.	<a href="http://www.cob.asu.edu/up/indexupo.cfm">www.cob.asu.edu/up/indexupo.cfm</a>
College of Education	EDB L1-13	480/965-5555	Mon.–Fri.	8 A.M.–5 P.M.	<a href="http://coe.asu.edu/osa">coe.asu.edu/osa</a>
College of Engineering and Applied Sciences	ECG 100	480/965-3421	Mon.–Fri.	8:30 A.M.–noon, 1–5 P.M. <sup>2</sup>	<a href="http://www.eas.asu.edu">www.eas.asu.edu</a>
College of Law	LAW 120	480/965-1474	Mon.–Fri.	8 A.M.–5 P.M. <sup>3</sup>	<a href="http://www.law.asu.edu">www.law.asu.edu</a>
College of Liberal Arts and Sciences	SS 111	480/965-6506	Mon.–Fri.	8 A.M.–5 P.M.	<a href="http://clasdean.la.asu.edu/student/resources">clasdean.la.asu.edu/ student/resources</a>
College of Nursing	NUR 108	480/965-2987	Mon.–Fri.	8 A.M.–5 P.M.	<a href="http://nursing.asu.edu">nursing.asu.edu</a>
College of Public Programs	WILSN 203	480/965-1034	Mon.–Fri.	8:30 A.M.–noon, 1–5 P.M.	<a href="http://www.asu.edu/copp/students/advisors.html">www.asu.edu/copp/ students/ advisors.html</a>
Graduate College	WILSN lobby	480/965-3521	Mon.–Thurs. Fri.	8 A.M.–6 P.M. <sup>2</sup> 8 A.M.–5 P.M. <sup>2</sup>	<a href="http://www.asu.edu/graduate/fr_checklist.html">www.asu.edu/ graduate/ fr_checklist.html</a>
Herberger College of Fine Arts	GHALL 127	480/965-4495	Mon.–Fri.	8 A.M.–noon, 1–5 P.M.	<a href="http://herbergercollege.asu.edu">herbergercollege.asu.edu</a>

<sup>1</sup> Arizona is on mountain standard time all year and does not observe daylight saving time.

<sup>2</sup> Walk-ins are welcome; appointments are recommended.

<sup>3</sup> Call for additional hours.

Students who score 18 (16) or below on the ACT English test or 460 (380) or below on the SAT verbal test must enroll in WAC 101, a basic writing course (see “Writing Across the Curriculum,” page 374). Students who score between 19 (17) and 28 (24) on the ACT English test or between 470 (390) and 650 (580) on the SAT verbal test are eligible to enroll in ENG 101. Students who score 29 (25) or higher on the ACT English test or 660 (590) or higher on the SAT verbal test may take ENG 105 in place of ENG 101 and 102. Students may qualify for ENG 105 by achieving appropriate scores on the CLEP General Examination in English Composition with Essay or the CLEP Subject Examination in College Composition with Essay. For more information, go to University Testing Services, in EDB 301, access the Web site at [www.asu.edu/uts](http://www.asu.edu/uts), or call 480/965-7146.

**Foreign Language.** For information regarding foreign language placement testing, see “Foreign Language Requirement,” and “Foreign Language Placement,” page 404, and “Special Programs for Advanced Placement and Credit,” page 65.

**Mathematics.** Placement examinations are not required before registering in mathematics courses at ASU. However, mathematics placement exams should be taken before the start of the semester for MAT 106, 117, 170, and 270. For more information, visit the Department of Mathematics and Statistics undergraduate office, in PS A211, or access the Web site at [fym.la.asu.edu/placement](http://fym.la.asu.edu/placement).

## Academic Advising

Effective academic advising of students is an essential aspect of the educational experience at ASU. The university is committed to providing quality advising to continuing, first-time, and transfer students. To achieve the highest-quality advising, students, faculty, and staff must work to form a partnership. Each college has advisors to assist students in developing programs of study, assessing educational goals, and understanding rules, procedures, and curriculum requirements. In some colleges, these advisors are faculty members. In others, they are full-time, professional advisors. Students often may seek academic and career advice from both faculty members and full-time advisors. Students are encouraged to take advantage of the skill and knowledge of the advising professionals available to them. Most new students and many continuing students must meet with an advisor as a condition of registration.

An additional unit, Academic Advising Services, is a central advising, referral, and information facility whose staff is available to assist students in their academic careers at ASU. Emphasis is placed on advising services to first-time, prospective, transfer, and visiting students and students in transition, such as those changing majors and those without majors. Bachelor of Interdisciplinary Studies majors (B.I.S. or pre-B.I.S.) also receive academic advising in Academic Advising Services. In addition to guidance in the exploration or selection of a major, Academic Advising Services provides general academic information and referrals to all

## UNDERGRADUATE ENROLLMENT

areas of student academic support. For more information, visit Academic Advising Services in UASB 123, or call 480-965-4464.

Students are strongly encouraged to seek academic advising at the earliest possible time and to do so regularly throughout their academic careers, whether or not advising is mandatory in their particular programs. Advisors may be contacted at the locations and times shown in the "Academic Advising at ASU Main" table, page 69. For academic advising at ASU East, see the "Academic Advising at ASU East" table, page 623. See "Building Abbreviations," page 743, for a list of building abbreviations and names.)

## Readmission to the University

Undergraduate students who have previously attended ASU but have not been enrolled at ASU for one semester or more are required to apply for readmission for the semester in which reenrollment is intended. Nonresident applicants must submit a nonrefundable \$40 application fee. If, meanwhile, the student has attended another accredited college or university, it is necessary for the student to have on file an official transcript of all academic work taken. Failure to report such attendance is considered misrepresentation and falsification of university records. In addition, it is considered cause for Records Hold action and withholding of further registration privileges. An applicant for readmission must meet the requirements for good standing. See "Retention and Academic Standards," page 75, and the requirements of the college to which the application is being made. An applicant who has been denied readmission may appeal to the University Undergraduate Admissions Board. Nondegree applicants for readmission must have a minimum GPA of 2.00. If not, the applicant must apply to ASU through Undergraduate Admissions.

**Conditional Readmission.** A student completing academic work in progress at another institution may be granted conditional readmission. This conditional status remains effective until a final official transcript is received. The student is subject to Records Hold action, and additional registration privileges are withheld if this condition for readmission is not cleared by midsemester.

## Academic Renewal

Academic renewal is a university policy administered for the purpose of recalculating the ASU cumulative GPA of undergraduate students who have been readmitted to a degree program after an absence of at least five continuous calendar years including summer sessions and who have completed in good standing a minimum of 12 college approved additional hours in residence within three semesters after reentry. Students may have the former academic record before the five-year absence including transfer credits accepted in the same manner as if the credits were transfer credits. That is, earned hours are carried forward for up to 60 hours of credit in which a grade of "C" or higher was earned. The cumulative GPA is based only on credits earned subsequent to the student's reentry. All graduation residency, academic recognition residency, and GPA requirements must be fulfilled after academic renewal.

A request for academic renewal follows this procedure:

1. Students interested in academic renewal must request the Application for Academic Renewal from the Readmission Section of the Office of the Registrar or the dean of the college offering the major.
2. The Application for Academic Renewal may be submitted immediately upon readmission but not later than the start of the third semester after readmission.
3. The Application for Academic Renewal is submitted by the student to the dean of the college offering the major.
4. The dean specifies in advance a minimum of 12 semester hours.
5. When the approved credits are completed with a cumulative GPA of 2.50 or higher and no grade lower than "C" in each course, the dean forwards the Application for Academic Renewal to the Office of the Registrar for processing.

Only students working toward their first undergraduate degree are eligible to apply for academic renewal, which may be effected only once during a student's academic career. Academic renewal is transferable among colleges. All students with ASU GPAs below 2.00 are eligible to petition for academic renewal. Individual colleges may elect to entertain petitions for academic renewal from students with ASU GPAs above 2.00. College standards committees have final authorization on academic renewal petitions. Eligibility for graduation is based on the ASU cumulative GPA after academic renewal. However, a student's complete record before and after academic renewal remains on the transcript and may be taken into consideration when a student applies for undergraduate professional or graduate programs.

## Registration

All persons attending a class at ASU must be registered for that class. A student is considered to be registered when all registration fees have been paid in full.

**Eligibility.** Only eligible students may register for courses at ASU. An eligible student is either continuing from the previous semester or has been admitted or readmitted to the university. See "Undergraduate Admission," page 58, and "Readmission to the University," on this page.

**Proof of Identification.** To receive university services, photo identification must be presented. Each admitted or readmitted student who completes the registration process for a regular semester needs to obtain a student identification card. This photo identification card is valid for the duration of the student's enrollment at ASU.

Photo IDs are issued throughout the semester at the Sun Card office located in the Memorial Union on Main Campus and at the OASIS in the Center Building on East Campus. See the *Schedule of Classes* or refer to "Parking Decals," page 45.

**Registration Fees.** Registration fees are due and must be paid in full at the time specified each semester in the *Schedule of Classes*. If any payment tendered is unauthorized,



## Enrollment Verification Guidelines

Term	Student	Full Time	Half Time	Less Than Half Time
Regular semester	Undergraduate	12 or more hours	6–11 hours	5 or fewer hours
	Graduate	9 or more hours	5–8 hours	4 or fewer hours
	Research assistant	6 or more hours		
Five week summer session	Undergraduate	4 or more hours	2 hours	1 hour
	Graduate	3 or more hours	2 hours	1 hour
	Research assistant	2 or more hours	1 hour	
Eight week summer session	Undergraduate	6 or more hours	3–5 hours	2 or fewer hours
	Graduate	5 or more hours	3–4 hours	2 or fewer hours

incomplete, or received after the due date, registration fees are considered unpaid.

**Schedule of Classes.** The *Schedule of Classes* published for the fall and spring semester, and the *Summer Sessions Bulletin* are distributed without charge. These publications are available online at [www.asu.edu/registrar/schedule](http://www.asu.edu/registrar/schedule). They list course offerings, dates, times, places, and procedures for registration, along with other important information about the term.

**Course Loads.** A minimum full-time course load for an undergraduate student is 12 semester hours. The maximum course load for which a student may register is 18 semester hours, with the exception of a 19-hour maximum for students enrolled in the Colleges of Engineering and Applied Sciences or Architecture and Environmental Design. A student wishing to register for more than the maximum must petition the standards committee of the college in which the student is enrolled and must obtain an approved override before registration. See "Summer Session Semester Hour Load," on this page, for summer course load information.

**Reserving of Course Credit by Undergraduates.** Seniors at ASU within 12 semester hours of graduation may enroll in a 400-level or graduate course and reserve the credit for possible use in a future graduate program. The course can not be used to meet a baccalaureate graduation requirement. Before registration in the course, the student must submit a Graduate College Petition form requesting credit reservation. The form must be signed by the student's advisor, the head of the academic unit offering the class, and the dean of the Graduate College.

Permission to reserve a course does not guarantee admission to a graduate degree program or that the course may be used toward graduate degree requirements. A maximum of nine semester hours may be reserved, and only courses in which the student earned an "A" or "B" grade are applicable. Reserved credit earned before admission to a graduate degree program is classified as nondegree credit. The maximum course load for a student enrolled in a reserved course is 15 semester hours during a regular semester and six hours during a summer session.

**Summer Session Semester Hour Load.** The summer session semester hour load limit is seven semester hours for each five-week session and nine semester hours for the eight-week session. The student may not exceed a total of 14 semester hours for any combination of sessions.

**Concurrent Enrollment.** Provided that the other institution's regulations concerning enrollment, graduation requirements, and transfer of credits are not violated, a student may enroll in classes at other institutions or in independent learning courses while enrolled at ASU. However, the student is urged to seek advising before concurrent enrollment to assure orderly progress toward a degree. If total credits exceed the maximum course load, prior permission must be granted by the college standards committee. See "Course Loads," on this page.

**Attendance.** The instructor has full authority to decide whether class attendance is required.

**Enrollment Verification Guidelines.** The registrar is responsible for verifying enrollment according to the general guidelines in the "Enrollment Verification Guidelines" table, on this page. Independent learning courses are not considered for enrollment verification purposes.

## Cooperative Programs

**Cooperative Education.** Cooperative education at ASU is any educational program that requires a *ternating class program and work experience* in government or industry. The work experience exists for its educational value.

**Full Time Status of Co-op Students.** A co-op student, during a work semester, is identified as both co-op and full time by the university. To qualify, the student must have met prescribed hours and GPA requirements.

**Rights and Privileges of Co-op Students.** During their work semesters, co-op students have the rights, privileges, and protections with regard to university matters accorded to full-time students, except financial aid. They maintain catalog continuity and have student access to university facilities and events.

**Financial Aid for Co-op Students.** Co-op students are not identified to lenders (including ASU) as being in loan repayment status. They have an "in-school" full-time enrollment status. Co-op students do not receive any financial aid disbursement during their co-op semesters, *nor are such awards transferred to another semester*. The student is responsible for notifying Student Financial Assistance as soon as plans for a co-op term are made but no later than 10 days before the co-op term begins. The department or school is responsible for notifying Student Financial Assistance of students approved for co-op terms.

## UNDERGRADUATE ENROLLMENT

**Traveling Scholar Program.** The Traveling Scholar Program is a cooperative program among the state universities designed to enable students to take advantage of programs or special resources that are not available at their own institutions. Any undergraduate student with a GPA of at least 2.50 or any graduate student with a GPA of at least 3.00 enrolled at ASU, Northern Arizona University, or University of Arizona may be designated a Traveling Scholar by prior mutual agreement of the appropriate academic authorities at both the sponsoring and hosting institutions. Contact the Registrar's Records Information Section for more information and the application form.

## Grading System

### DEFINITIONS

#### Unit of Credit

The Arizona Board of Regents has defined (May 26, 1979) a unit of credit for the institutions under its jurisdiction. A minimum of 45 hours of work by each student is required for each unit of credit. An hour of work represents a minimum of 50 minutes of class time—often called a "contact hour"—or 60 minutes of independent study work. For lecture-discussion courses, this requirement equates to at least 15 contact hours and a minimum of 30 hours of work outside the classroom for each unit of credit. Even though the values of 15 and 30 may vary for different modes of instruction, the minimum total of 45 hours of work for each unit of credit is a constant. Since the unit of credit as defined by the Arizona Board of Regents is the cornerstone of academic degree programs at ASU, degrees granted by other institutions that are recognized by ASU should be based on a similar unit of credit.

#### Grades and Marks

All grades and marks appear on the permanent record and on unofficial transcript.

They are indicated by the letters shown in the "Grades" table, on this page.

#### Grading Options

Ordinarily a grade of "A," "B," "C," "D," or "E" is given upon completion of a course, unless a grading option of "audit" or "pass/fail" is indicated at the time of registration. *Grading options cannot be changed after the close of the drop/add period.*

#### Incomplete

A mark of "I" (incomplete) is given by the instructor only when a student who is otherwise doing acceptable work is unable to complete a course because of illness or other conditions beyond the student's control. The mark of "I" should be granted only when the student can complete the unfinished work with the same instructor. However, an incomplete ("I") may be completed with an instructor designated by the department chair if the original instructor later becomes incapacitated or is otherwise not on campus. The student is required to arrange with the instructor for the completion of the course requirements. The arrangement is recorded on the Request for Grade of Incomplete form. The student has one calendar year from the date the mark of "I"

### Grades

Grade	Definition	Value
A	Excellent	4.00
B	Good	3.00
C	Average	2.00
D	Passing	1.00
E	Failure	0.00
I	Incomplete	
NR	No report	
P	Pass	
RC*	Remedial credit	
RN*	Remedial no credit	
W	Withdrawal	
X	Audit	
Y	Satisfactory	

\* This grade appears on only unofficial copies of ASU transcripts.

is recorded to complete the course. If the student completes the course within the calendar year, the instructor must submit a Request for Grade of Incomplete Authorization for Change of Grade form to the Office of the Registrar, whether the student passed or failed the course. Marks of "I" are changed to a grade of "E" for purposes of evaluating graduation requirements for undergraduate students. Marks of "I" received in the fall 1983 semester or thereafter for undergraduate courses that have been on a student's record for more than one calendar year are automatically changed to a grade of "E." An undergraduate student does not reregister or pay fees for a course for which an incomplete "I" has been received in order to complete the course.

Students who receive a mark of "I" in courses at the 500 level or above have one calendar year to complete the course for a grade. After one calendar year, the mark of "I" becomes a permanent part of the transcript. To repeat the course for credit, a student must reregister and pay fees. The grade for the repeated course appears on the transcript but does not replace the permanent "I."

#### Satisfactory

A mark of "Y" (satisfactory) may be used at the option of individual colleges and schools within the university and is appropriate for internships, projects, readings and conferences, research seminars, theses, and workshops. The "Y" is included in earned hours but is not computed in the GPA.

#### Credit Enrollment

The semester hour is the unit on which credit is computed. It represents one 50-minute class exercise per week per semester. To obtain credit, a student must be properly registered and must pay fees for the course.

#### Audit Enrollment

A student may choose to audit a course, in which case the student attends regularly scheduled class sessions, but no credit is earned. The student should obtain the instructor's approval before registering and paying the fees for the course. Selected courses may not be audited. Veteran students using education benefits should see "Veterans Services," page 39.

The mark of "X" is recorded for completion of an audited course, unless the instructor determines that the student's participation or attendance has been inadequate, in which case the mark of "W" (unrestricted withdrawal) may be recorded. This grading option may not be changed after the close of drop add. The "X" is not included in earned hours and is not computed in the GPA.

### Pass/Fail Enrollment

A mark of "P" (pass) or "F" (fail) may be assigned for this grading option. This grading method may be used at the option of individual colleges and schools within the university. Consult the college dean's office for detailed information and restrictions before registration. "P"s included in earned hours but is not computed in the GPA.

### Remedial Enrollment

A mark of "RC" (remedial credit) or "RN" (remedial no credit) may be assigned for this grading option. The course appears on an unofficial ASU transcript but does not appear on the grade report or official ASU transcript and is not included in earned hours. Remedial hours are included in verification of enrollment for purposes of loan deferment and eligibility.

## WITHDRAWALS

### Instructor-Initiated Drop

An instructor may drop a student for nonattendance during the second week of classes in fall or spring semesters or the first four days of each summer session. Instructor-initiated drops for nonattendance are signed by the dean or dean's designee. The college notifies students by mail. The student must contact the instructor before the end of the first week of classes if absences during that period cannot be avoided.

### Drop/Add

Students registering for courses for a semester or summer session may drop or add courses through the first week of classes in a semester or the first two days of a summer session. See the *Schedule of Classes* or the *Summer Sessions Bulletin* for dates of drop/add periods. During this period, a student may drop one or more but not all scheduled courses without penalty. Courses that are dropped do not appear on the student's transcript and fees paid are fully refunded, depending on the student's remaining hours. A student who wishes to withdraw from all courses during the drop/add period must process an unrestricted withdrawal.

### Unrestricted Course Withdrawal

During the first two weeks of a semester or the first six days of a summer session, a student may withdraw from any course with a mark of "W." See the *Schedule of Classes* or the *Summer Sessions Bulletin* for dates of the unrestricted withdrawal period.

### Restricted Withdrawal

From the fifth week to the end of the 10th week of a semester and from the seventh day to the end of the third week of a summer session, students may withdraw with a mark of "W" from only courses in which the instructor certifies that they are passing at the time of the withdrawal. See

the *Schedule of Classes* or the *Summer Sessions Bulletin* for dates of the restricted withdrawal period.

The number of restricted withdrawals with the mark of "W" is limited. One restricted withdrawal is assessed for each course withdrawn from, unless the student is withdrawing from all courses. A complete withdrawal results in the assessment of one restricted withdrawal against a student's limit. The number of withdrawals is a total of two for students during freshman, sophomore, junior, or senior standing; and a total of two for students during second undergraduate degree standing. Non-degree seeking graduate students are permitted to process an unlimited number of restricted withdrawals. Students must obtain a Restricted Withdrawal Request and obtain the signature of the instructor. The instructor has the option of assigning either a "W" or a failing grade of "E."

Students who have reached their restricted withdrawal limit are not allowed to process any additional restricted course withdrawals. However, students are allowed to process a restricted complete withdrawal even when they have reached the restricted withdrawal limit. The preceding limits do not prevent students from processing a complete withdrawal from the university with marks of "W" or "E." Complete withdrawal counts as one withdrawal for purposes of applying the above limits. The preceding does not apply to audit enrollment or zero-hour labs and recitations.

**Procedure for Restricted Withdrawal.** A student seeking a restricted withdrawal needs to

1. obtain a withdrawal form from any registrar site;
2. obtain a signature and verification of grade from instructor(s); and
3. have the form processed at any registrar site.

### Instructor-Initiated Withdrawal

An instructor may withdraw a student from a course with a mark of "W" or a grade of "E" only if the student's continued presence in the course is disruptive to the instructor's ability to conduct the course. A student may appeal an instructor-initiated withdrawal within 10 days of being withdrawn to the standards committee of the college in which the course is offered. The decision of the committee is final. Restricted withdrawal limits do not apply to withdrawals initiated by an instructor.

### Withdrawal from the University

To withdraw from all classes after having paid registration fees, a student must submit a request in person, withdraw using SunDial, or submit a signed request to the Office of the Registrar. The SunDial complete withdrawal option is only available through the first week of classes for a semester. During the unrestricted complete withdrawal period, a student may withdraw from all courses with marks of "W." During the restricted complete withdrawal period, a student may withdraw with marks of "W" only from courses that the instructors certify the student was passing at the time of withdrawal. See the *Schedule of Classes* or the *Summer Sessions Bulletin* for dates of the complete withdrawal periods. No one is permitted to withdraw from the university or to conduct any registration transaction in the last two weeks of the semester. The date of the complete withdrawal is always

## UNDERGRADUATE ENROLLMENT

the date the withdrawal form or letter is received in the Office of the Registrar.

### Medical Compassionate Withdrawal

A medical compassionate withdrawal request may be made in extraordinary cases where serious illness or injury, medical or another significant personal situation, compassionate prevents a student from continuing in his or her classes, and where incompletes or other arrangements with the instructor are not possible. Usually, consideration is for complete withdrawal. All applications for withdrawal require thorough and credible documentation. Application for less than a complete withdrawal must be especially well documented to justify the selective nature of the medical compassionate withdrawal request.

A student may request and be considered for a *medical* withdrawal when extraordinary circumstances, such as a serious illness or injury, prevent the student from continuing in classes. This policy covers both physical health and mental health difficulties.

A student may request and be considered for a *compassionate* withdrawal when extraordinary personal reasons, not related to the student's physical or mental health (for example, care of a seriously ill child or spouse, or a death in the student's immediate family), prevent the student from continuing in classes.

Each college has a dean's representative medical compassionate withdrawal designee to review medical compassionate withdrawal requests, according to that college's procedures. A student requesting a medical compassionate withdrawal is referred to the dean's designee of the college of the major. A nondegree student is referred to the dean's designee of the college with which he or she is primarily affiliated. The dean's designee determines the appropriateness of the medical compassionate withdrawal request and whether an administrative hold is indicated. Removal of the hold must be authorized by the designee before the student can register for a future semester or be readmitted to the university.

The medical compassionate withdrawal procedure results in a special note line on the unofficial transcript. Refunds are not given beyond six months past the close of the semester. Only one Request for Documented Medical Compassionate Withdrawal form needs to be filed with the college of the major, even if classes in more than one college are involved. Medical compassionate withdrawal applications and supporting documents are retained and filed separately from the student's other records.

### GRADE POINTS

For the purpose of computing the grade point average (GPA), grade points are assigned to each of the grades for each semester hour as follows: "A," four points; "B," three points; "C," two points; "D," one point; "E," zero points. GPAs are rounded to the nearest 100th of a grade point.

### Grade Point Average

Grade points earned for a course are multiplied by the number of semester hours to produce honor points. For example, receiving an "A," which is assigned four grade points, in a three semester hour course would produce 12

honor points. The grade point average (GPA) is obtained by dividing the total number of honor points earned by the total number of semester hours graded "A," "B," "C," "D," or "E." Other grades do not carry grade points. *Semester* GPA is based on *semester* net hours. *Cumulative* GPA is based on *total* net hours.

### Change of Grade

Ordinarily the instructor of a course has the sole and final responsibility for any grade reported. Once the grade has been reported to the registrar, it may be changed upon the signed authorization of the faculty member who issued the original grade. Approval for the change is also required by the department chair and the dean of the college concerned. This policy also applies to the grade of "I" (incomplete).

### University Policy for Student Appeal Procedures on Grades

**Informal.** The steps outlined on this page, beginning with step A, must be followed by any student seeking to appeal a grade. Student grade appeals must be processed in the regular semester immediately following the issuance of the grade in dispute (by commencement for fall or spring), regardless of whether the student is enrolled at the university. It is university policy that students filing grievances and those who are witnesses are protected from retaliation. Students who believe they are victims of retaliation should immediately contact the dean of the college in which the course is offered.

- A. The aggrieved student must first undergo the informal procedure of conferring with the instructor, stating the evidence, if any, and reasons for questioning the grade received. The instructor is obliged to review the matter, explain the grading procedure used, and show how the grade in question was determined. If the instructor is a graduate assistant and this interview does not resolve the difficulty, the student may then go to the faculty member in charge of the course (regular faculty member or director of the course sequence) with the problem.
- B. If the grading dispute is not resolved in step A, the student may appeal to the department chair or other appropriate chair of the area within the department (if any). The department chair may confer with the instructor to handle the problem. Step B applies only in departmentalized colleges.
- C. If these discussions are not adequate to settle the matter to the complainant's satisfaction, the student may then confer with the dean of the college concerned (or the dean designate), who will review the case. If unresolved, the dean or designate may refer the case to the college academic grievance hearing committee to review the case formally. In most instances, however, the grievance procedure does not go beyond this level.

**Formal.** The following procedure takes place after steps A, B, and C (or A and C) have been completed.

- D. Each college has on file in the office of the dean (and in each department of the college) the procedures and composition of the undergraduate or graduate academic

grievance hearing committee for student grievances. Each college committee shall operate under grievance procedures as stated which satisfy due process requirements. The committee shall always meet with the student and the instructor in an attempt to resolve the differences. At the conclusion of the hearing, the committee shall send its recommendations to the dean.

- E. Final action in each case will be taken by the dean after full consideration of the committee's recommendation. Grade changes, if any are recommended, may be made by the dean. The dean shall inform the student, instructor, department chair (if any), the registrar, and the grievance committee of any action taken

## Repeating Courses

An undergraduate course taken at ASU may be repeated for credit if the grade of "D," "E," or "W" or a mark of "X" is received. An undergraduate student may not repeat for credit an undergraduate course in which a grade of "C" or better is earned. Undergraduate courses in which grades of "D" or "E" are received may be repeated only once. After an undergraduate student repeats 100- and 200-level courses, the student's transcript shows both grades, but the student's cumulative GPA reflects only the higher grade. After an undergraduate student repeats 300 or 400 level courses, the student's cumulative GPA and the transcript reflect both grades.

After completing the course, the student must file a Deletion Form with the Office of the Registrar. To be eligible for the deletion of "D" or "E" grades, the course must be repeated at ASU. Independent Learning courses may not be used to repeat "D" or "E" grades. Students who have graduated are not eligible to delete the grade for a course taken before the award of the ASU bachelor's degree.

Students wishing to repeat a class for the third time with grades of "D" or "E" must petition the standards committee of the college in which they are enrolled. This policy does not apply to seminar and independent study courses with different content each semester. This policy affects only undergraduate students and undergraduate courses.

## Demonstration of Mastery

An undergraduate student who receives a "D" in a course in which a "C" or higher is required may use the grade from an equivalent course taken elsewhere to demonstrate mastery at the "C" or higher level. However, the course may neither be transferred to ASU (since credit has already been given for the course) nor computed in the student's GPA.

## Midterm Report

Instructors are required to evaluate students at midterm for academic progress. A student who has been evaluated for a "D" or "E" at midsemester receives a midterm report. The midterm "D" and "E" grades are not recorded on the student's permanent record. Midterm reports are mailed to the student's local address of record.

## Final Grades

Grades may be viewed online at [www.asu.edu/registrar](http://www.asu.edu/registrar) or accessed through SunDial at 480 350 1500

## Records Hold

The Office of the Registrar enforces a financial records hold or administrative hold on the records of a student when an outstanding financial obligation or disciplinary action has been reported.

When a hold is placed on a record, the following results may occur

1. No official or unofficial transcript is issued.
2. Registration privileges are suspended.
3. Other student services may be revoked.

The hold remains effective until removed by the initiating office. It is the student's responsibility to clear the conditions causing the hold

## Transcripts

The Office of the Registrar releases official transcripts *only upon the written request of the student*. The request must include the following information:

1. the student's name and former name(s) ;
2. the student's ID number;
3. the student's date of birth; and
4. the student's dates of attendance.

The request for official transcript form is available online at [www.asu.edu/registrar](http://www.asu.edu/registrar) forms.

The Office of the Registrar does not issue a transcript if the student has a financial records hold. The student must supply a specific address if the transcript is to be mailed. The fee for an official transcript for a student not enrolled is \$5 for the first copy. Additional copies ordered at the same time are \$1 each. The fee is \$1 per copy for a student enrolled for a current or future semester.

Unofficial transcripts may be requested in person at the Office of the Registrar or any registrar site, or by mail or fax (480 965 2295) if a signed release is enclosed. There is no charge for an unofficial transcript.

All in person transcript requests require presentation of photo identification. Requests are not accepted from third parties without a written release from the student. For information on parental access to records, see "Access to Records" page 78.

## Retention and Academic Standards

**Class Standing.** A student's class standing is determined by the number of hours earned, as shown in the "Class Standing" table below.

### Class Standing

Student	Hours Earned
Freshman	24 or fewer semester hours earned
Sophomore	25 to 35 semester hours earned
Junior	36 to 86 semester hours earned
Senior	87 or more semester hours earned
Graduate	Bachelor's degree from accredited institution

**Academic Good Standing.** For the purpose of retention, academic good standing for degree seeking students is

## UNDERGRADUATE ENROLLMENT

defined as shown in the "Academic Good Standing" table below.

### Academic Good Standing

Total Earned Hours	Minimum Cumulative GPA
24 or fewer	1.60
25 to 55	1.75
56 or more	2.00

A student who does not maintain the minimum GPA standard is placed on academic probation or is disqualified. A student on academic probation is in conditional good standing and is permitted to enroll. A student who has been disqualified is not in academic good standing and is not permitted to enroll for fall or spring semesters.

To transfer from one college to another within the university or to be eligible for readmission, a student must have a GPA of 2.0 or higher. The GPA determining good standing is computed on courses taken only at ASU.

For purposes of retention or transfer, an individual college may set higher GPA standards; otherwise, the university standards prevail. See the college sections of this catalog or contact the college deans' offices for statements regarding college retention standards.

**Meeting Basic Competencies.** New students are required to have completed a specific number of courses in the areas of American history, English, laboratory science, mathematics, social science, fine arts and foreign language. Students who are exempt from these requirements include students who have completed an Arizona General Education Curriculum (AGEC) or an associate degree, students admitted by GED, and students who are 22 years of age or older by the first day of the semester of admission. An admitted student who needs to meet competencies in one or more of these areas must satisfy the requirement within two years of the beginning of the student's first semester at ASU. Subject competencies in each area may be met by earning a grade of "D" or higher at ASU in an appropriate course(s) as listed in the "Basic Competency Requirements" table, page 60.

**Appealing Basic Competencies.** A student who has not met all basic competencies at the end of two calendar years after the student's initial date of enrollment is not permitted to continue at ASU. Each student is notified that he or she may not register or, if already registered, that their registration has been canceled.

A student wishing to appeal the dismissal should submit a petition through his or her college. The colleges have three options in reviewing these appeals:

1. extending the student's end semester to allow one additional semester to complete the required course work,
2. allowing the student to substitute a course not currently approved to fulfill a competency area when an error has been made in advising or for other just causes, or
3. denying the petition

College actions are forwarded to the Office of the Registrar for processing.

**Dean's List.** Undergraduate students who earn 12 or more graded semester hours "A," "B," "C," "D," or "E" during a semester in residence at ASU with a GPA of 3.50 or higher are eligible for the Dean's List. A notation regarding Dean's List achievement appears only on the final grade report available online at [www.asu.edu/registrar](http://www.asu.edu/registrar).

**Satisfactory Academic Progress.** The university is required to publish and enforce standards of satisfactory academic progress for certain students, i.e., student athletes, students receiving financial aid, and students receiving veterans benefits.

Certification of satisfactory progress for student athletes is verified by the academic advisor and the dean's designee for certifying satisfactory progress. Certification of satisfactory progress for students receiving financial aid or veterans benefits is verified by Student Financial Assistance or the Veterans Services Section, respectively. Students should contact their advisors or the appropriate office for additional information on satisfactory progress requirements.

**Probation.** A student's college assumes responsibility for enforcing academic standards and may place any student on probation who has failed to maintain good standing as previously defined. For purposes of probation and retention, an individual college may set higher GPA standards. A student on academic probation is required to observe any rules or limitations the college may impose as a condition for retention.

**Disqualification.** A student who is placed on probation at the end of a semester is subject to disqualification by the college at the end of the following semester if the conditions imposed for retention are not met.

Disqualification is exercised at the discretion of the college and becomes effective on the first day of the semester following college action. *A disqualified student is notified by the dean of the college or the Office of the Registrar and is not allowed to exist in a full spring semester at the university until reinstated.* A student who has been disqualified may appeal to the college standards committee. A student who is disqualified may not attend as a nondegree student.

**Reinstatement.** If a student with a GPA of 2.00 or greater has been disqualified by one college and seeks to transfer to another college at ASU, the student may apply at the Readmissions Section, SSV 114, or directly to the college to which the student wishes to transfer.

To be reinstated into an ASU college (other than the disqualifying college), the student must submit an application for reinstatement to the University Undergraduate Admissions Board through the Readmissions Section of the Office of the Registrar.

To be reinstated into the same college from which the student was disqualified, the student must submit an application for reinstatement to the disqualifying college. When reinstatement includes readmission, application must be made to the Readmissions Section of the Office of the Registrar.

## Basic Competencies

Area	ASU Courses That May Be Used to Meet Basic Competencies
American history	Any one course: HST 109, 110
English	Any one course: ENG 101, 105, 107; WAC 101, 107
Fine arts	Any one course: ADE 120; DSC 120, 121, 122; any undergraduate three semester hour course offered in the Herberger College of Fine Arts
Foreign language	Student must complete through the 102, 107, or 111 course level of any foreign language course.
Laboratory science*	
Chemistry	Any one course: CHM 101, 107, 113, 114, 117
Earth sciences	Any numbered selection: 1. GLG 101 and 103 2. GLG 110 and 111 3. GLG 105 4. GPH 111 5. ERS 130
Life sciences	Any one course: BIO 100, 120, 187, 188, 201; PLB 108
Physics	Any numbered selection: 1. AST 111 and 113 2. AST 112 and 114 3. PHS 110 4. PHY 101 5. PHY 111 and 113 6. PHY 112 and 114 7. PHY 121 and 122 8. PHY 131 and 132
Mathematics	Any one course: MAT 114, 117, 119, 170, 210, 260, 270, 290
Social science	Any one course: ASB 102; ECN 111, 112; GCU 107, 121, 141, HST 102, 103, 104; PGS 101, POS 101, 110, 150, 160; SOC 101

\* The laboratory science requirement is designed to demonstrate competency in two separate laboratory sciences. For example, if a lab science competency has been met in life sciences through high school course work, the ATP biology achievement test, or college course work, the second lab science course must be selected from chemistry, earth sciences, or physics.

**Reinstatement Appeals.** A student wishing to appeal the decision of the standards committee of a college may submit an appeal to the University Undergraduate Admissions Board. The decision of the board is final.

**Academic Integrity.** The highest standards of academic integrity are expected of all students. The failure of any student to meet these standards may result in suspension or expulsion from the university or other sanctions as specified in the University Student Academic Integrity Policy. Violations of academic integrity include, but are not limited to, cheating, fabrication, tampering, plagiarism, or facilitating such activities. The University Student Academic Integrity Policy is available from the Office of the Senior Vice President and Provost and from the deans of the individual colleges.

**Suspension or Expulsion for Academic Dishonesty.** All decisions relating to expulsion or suspension that are concerned with academic dishonesty are the sole prerogative of the dean of the school or college in which the student has been admitted. These decisions of suspension or expulsion can be appealed in accordance with established university procedures. Application for reinstatement may be made to any of the academic units within the university after the specified period of suspension. Merely having remained in a

suspended status for a period of time does not, in itself, constitute a basis for reinstatement.

## Student Records

### Family Educational Rights and Privacy Act of 1974

The federal Family Educational Rights and Privacy Act of 1974, also known as the Buckley Amendment or FERPA, sets forth the requirements governing the protection of the privacy of educational records of students who are or have been in attendance at ASU.

#### Definitions

**Eligible Student.** For the purpose of this act, an *eligible student* is defined as any individual formally admitted to and enrolled at ASU.

**Record.** The term *record* includes any information or data recorded in any medium, including, but not limited to, hand writing, print, tapes, film, microfilm, microfiche, and electronic means.

#### Types of Information

**Education Record.** The term *education record* refers to those records directly related to a student and maintained by an educational institution. Two types of education records

## UNDERGRADUATE ENROLLMENT

are subject to the provisions of this act: (1) directory information and (2) personally identifiable information. The term does not include those records specifically excluded by Section 99.3 of the privacy act.

**Directory Information.** The term *directory information* includes the following student information: name, local, permanent and ASU e-mail addresses, local telephone number, date of birth, residency status, academic level, major field of study, college of enrollment, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student.

**Personally Identifiable Information.** The term *personally identifiable information* includes all information not defined as directory information. This includes, but is not limited to, the name of a student's parent or other family member(s), a personal identifier such as the student's ASU ID number or Social Security number, a list of personal characteristics, or other information that would make the student's identity easily traceable and any information, including directory information, that the student has indicated should not be released.

### Access to Records

An eligible student may inspect and review his or her own education records. Some form of photo identification must be displayed before access to education records is allowed.

Directory information may be released to anyone without consent of the student unless the student has indicated otherwise. Students may request that this information not be released by completing a form in the Office of the Registrar. A request to withhold this information excludes the student from being listed in the annual directory only if the request is submitted to the Office of the Registrar before the end of the third week of the fall semester.

All other education records that contain personally identifiable information may not be released without the written consent of the student. A parent of a dependent student may challenge denial of such access by producing the most current copy of Internal Revenue Form 1040. If that form lists the student in question as a dependent, the parent is required to sign an affidavit that affirms that the student is his or her dependent. The affidavit is retained by the Office of the Registrar. Upon receipt of the affidavit, the university may make student records available to the parent for the rest of that calendar year as specified under the Buckley Amendment.

Students may grant access to individuals or agencies by completing a form in the Office of the Registrar.

### Location of Policy and Records

The custodian of education records at ASU is the Office of the Registrar. Copies of this policy are available in the following offices: Reserve sections of Hayden Library and the Noble Science and Engineering Library; the Office of the Registrar, Undergraduate and Graduate Admissions, and Student Life. The Office of the Registrar also maintains a directory that lists all education records maintained on students by ASU.



Leah McDonald (right) leads parents and students on an orientation tour.

Tim Trumbull photo



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# University Graduation Requirements

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## UNIVERSITY REQUIREMENTS

All students enrolled in a baccalaureate degree program must fulfill the following university requirements to graduate.

### Credit Requirements

A minimum of 120 semester hours is required for graduation with a baccalaureate degree. A minimum of 45 semester hours in upper division courses is required for graduation. Some programs may require more than 45 upper division semester hours for graduation; refer to college graduation requirements for the specific number required.

Not more than 60 semester hours in independent learning courses and/or earned by comprehensive examination (including Advanced Placement, College Level Examination Program, and International Baccalaureate Diploma Certificate exams) are accepted for credit toward the baccalaureate degree.

### Grade Point Requirement

A minimum cumulative grade point average of 2.00 for all courses taken at ASU is required to graduate with a baccalaureate degree.

### General Studies Requirement

All students enrolled in a baccalaureate degree program must satisfy a university requirement of a minimum of 35 semester hours of approved course work. See "General Studies," page 83. For General Studies courses, see the "General Studies Courses" tab on page 86, the course descriptions, the *Schedule of Classes*, and the *Summer Sessions Bulletin*.

Students transferring from Arizona community colleges with a certified completion of the appropriate Arizona General Education Curriculum (AGEC) will have satisfied a lower division General Studies requirements of the baccalaureate degree with which the AGEC articulates. For more details regarding the different versions of AGEC, refer to [aztransfer.org/cas/atass/student/agec.html](http://aztransfer.org/cas/atass/student/agec.html).

### Mathematics Requirement

All undergraduate degree seeking students are expected to fulfill the university's mathematics requirement by the time they have accumulated 30 hours of credit in residence at ASU. Any student who has more than 30 hours of credit and has not fulfilled the mathematics requirement must enroll in a mathematics course or an appropriate prerequisite course and continue to do so every semester until the mathematics requirement is met. A waiver may be granted for continuous enrollment if there are scheduling conflicts detrimental to the student's academic progress.

### First-Year Composition Requirement

Completion of both ENG 101 and 102 or ENG 105 with a grade of "C" or higher is required for graduation from ASU in any baccalaureate program. International students from

non-English speaking countries may meet the First Year Composition requirement by completing ENG 107 and 108 with a grade of "C" or higher.

**New or Transfer Students.** Before new students or transfer students can register for the first time at ASU, they must determine what courses to take to complete the university First Year Composition requirement; the students must then enroll immediately in composition courses and continue to do so every term until composition requirements are met. *Colleges may grant waivers to the immediate and continual enrollment requirement when there are scheduling conflicts detrimental to the student's academic progress.* Transfer students from other Arizona colleges or universities can determine the acceptability of their composition courses by referring to the *Course Applicability System* in consultation with an academic advisor. Composition courses transferred from out-of-state institutions must be evaluated and approved by the Composition Office.

The transfer student must file an application in the student's college for Equivalency of First Year Composition Requirements, along with a transcript and catalog descriptions of the composition courses to be transferred. The application, available in each college, should be filed immediately upon transfer of course work to ASU so that the student is able to enroll in an additional composition course, if required to do so.

For more information, the student should go to the Composition Office in LL 314.

### Resident Credit Requirement

Resident credit refers to a course that is offered in a regular semester, winter session, intercession, or summer session. Credit earned through comprehensive examinations is also included when calculating ASU resident hours. Credit earned through independent learning, advanced placement, the College Level Examination Program, or an International Baccalaureate Diploma/Certificate are excluded when calculating ASU resident hours.

**Campus Resident Credit Requirement.** Every candidate for the baccalaureate degree is required to earn a minimum of 30 semester hours in resident credit courses at the ASU campus from which the student will graduate.

### Guidelines for Determination of Catalog Year

The *General Catalog* is published annually. Department, school, division, college, and university requirements may change and are upgraded often. In determining graduation requirements, an undergraduate student may use only one edition of the *General Catalog* but may elect to follow any subsequent catalog. Students maintaining continuous enrollment at any public Arizona community college or university may graduate according to the requirements of the catalog in effect at the time of initial enrollment or according to the requirements of any single catalog in effect

## UNIVERSITY GRADUATION REQUIREMENTS

### Continuous Enrollment

Student's Activity	Semester Year	Status
<b>Example A</b>		
Admitted and earned course credit at an Arizona community college	Fall 2000	Active
Continued at an Arizona community college	Spring 2001	Active
	Fall 2001	
Transferred to an Arizona university	Spring 2002	Student enrolled under 2000–01 or any subsequent catalog
<b>Example B</b>		
Admitted and earned course credit at an Arizona community college	Fall 1997	Active
Enrolled but earned all “Ws” or “Es”	Spring 1998	Inactive
Enrolled in audit courses only	Fall 1998	Inactive
Nonattendance	Spring 1999	Inactive
Transferred to an Arizona university	Fall 1999	Student enrolled under 1999–2000 or any subsequent catalog
<b>Example C</b>		
Admitted and earned course credit at an Arizona community college	Fall 1997	Active
Nonattendance	Spring 1998	Inactive
	Fall 1998	
	Spring 1999	
Readmitted and earned course credit at an Arizona community college	Fall 1999	Active
Transferred to an Arizona university	Spring 2000	Student enrolled under 1999–2000 or any subsequent catalog
<b>Example D</b>		
Admitted and earned course credit at an Arizona community college	Fall 1996	Active
Nonattendance	Spring 1997	Inactive
Readmitted and earned course credit at an Arizona community college	Summer 1997	Active
Nonattendance	Fall 1997	Inactive
	Spring 1998	
Transferred to an Arizona university	Fall 1998	Student enrolled under 1996–98 or any subsequent catalog
<b>Example E</b>		
Admitted and earned course credit at an Arizona community college	Summer 1998	Active
Continued at an Arizona community college	Fall 1998	Active
	Spring 1999	
Nonattendance	Fall 1999	Inactive
Readmitted and earned course credit at an Arizona community college	Spring 2000	Active
Transferred to an Arizona university	Summer 2000	Student enrolled under 1998–99 or any subsequent catalog

during or subsequent terms of continuous enrollment. Students may maintain continuous enrollment whether attending a single public community college or university in Arizona or transferring among public institutions in Arizona while pursuing their degrees.

Students transferring among Arizona public higher education institutions must meet the admission, residency, and all curricular and academic requirements of the degree-granting institution.

1. A semester in which a student earns course credit is counted toward continuous enrollment. Noncredit courses, audited courses, failed courses, or courses from which the student withdraws do not count toward the determination of continuous enrollment for catalog purposes. See examples A and B in the “Continuous Enrollment” table, on this page.

2. Students who do not meet the minimum enrollment standard stipulated in number 1 during three consecutive semesters (fall/spring, fall or spring/fall/spring, and the intervening summer term) at any public Arizona community college or university are no longer considered continuously enrolled. Note that students are not obligated to enroll and earn course credit during summer terms, but summer enrollment may be used to maintain continuous enrollment status. These students must meet requirements of the public Arizona community college or university catalog in effect at the time they are readmitted or of any single catalog in effect during subsequent terms of continuous enrollment after readmission. See examples C and D in the “Continuous Enrollment” table, on this page.
3. Students admitted or readmitted to a public Arizona community college or university during a summer

term must follow the requirements of the catalog in effect the following fall semester or of any since catalog in effect during subsequent terms of continuous enrollment. See example E in the "Continuous Enrollment" table, page 80.

4. In areas of study in which the subject matter changes rapidly, material in courses taken long before graduation may become obsolete or irrelevant. Course work that is more than eight years old is applicable to completion of degree requirements at the discretion of the student's major department. Departments may accept such course work, reject it, or request that the student revalidate its substance. The eight-year limit on course work applies except when program accreditation agencies limit the life of course work to fewer than eight years. Departments may also require students to satisfy current major requirements rather than major requirements in earlier catalogs when completing earlier requirements is no longer possible or educationally sound.
5. Enrollment by Arizona community college students in nontransferable courses still constitutes enrollment for purposes of determining whether the student has been continuously enrolled. For example, if a student takes two semesters of cooperative education classes, which are not transferable to the university but constitute *continuous* enrollment at the community college, the university should consider it *continuous* enrollment.
6. Exceptions made by an institution apply only to the institution that made the exception. For example, if the community college departments accepted credit that was more than eight years old, the university department to which the student transfers has the right and the obligation to reevaluate any credit more than eight years old.

Inquiries about these guidelines may be directed to the student's academic advisor.

## Declaration of Graduation

Students must file a Declaration of Graduation (DOG using the Degree Audit Reporting System (DARS). DARS is an automated process that matches courses a student has completed with the requirements of a particular academic degree program, resulting in a report that shows the student which requirements are satisfied and which requirements remain to be fulfilled, thus providing a guide for efficient selection of courses toward graduation. For example, a student majoring in Biology would request a Degree Audit Report that would show how his or her completed ASU and transfer course work would apply to the Biology degree program.

Each student must submit a DOG form no later than the semester in which he or she earns the 87th semester hour. The DOG process confirms the degree requirements under which the student is enrolled, as indicated on the degree audit report for that academic program and catalog year. The student should review his or her degree audit with an academic advisor to assure an accurate interpretation. Some departments may require the DOG earlier than the 87th

hour. Students failing to submit the DOG are prevented from further registration.

## Application for Graduation Requirements

The following steps are required to complete the graduation process:

1. Register for the final semester.
2. Pay the graduation fee at Cashiering Services. Note the deadline dates listed in the "University Calendar," page 15.
3. Submit the fee receipt to the Graduation Section, SSV 140, and apply for graduation. The Degree Audit Report or Program of Study is reviewed at this time and the graduation date and eligibility to graduate are verified.
4. Complete all course work listed on the Degree Audit Report or Program of Study by the graduation date.

For more information about application for graduation requirements at ASU West, contact ASU West Admissions and Records (UCB 12).

Students must comply with the above requirements to graduate.

The Application for Graduation along with the Degree Audit Report or Program of Study is reviewed to verify graduation eligibility.

## Petition for Variance from Degree

Any student wishing to have a college or university degree requirement variance must petition the standards committee of the college in which the student is enrolled.

All petitions must originate with the student's advisor. Refer to the college sections of this catalog for college and division, school, or department requirements.

**Main Campus Standards Committee.** This committee advises the Office of the Senior Vice President and Provost regarding undergraduate student petitions that concern university-wide academic requirements. These requirements include but are not limited to requirements on the amount of transfer credit, graduation requirements, limits on credit by examination, and requirements for a second baccalaureate degree (see "Overview of Graduation Requirements," page 52, and "Second Baccalaureate Degree," page 52). To petition for a variance from such university requirements, the normal department, division, school, and college forms and procedures are used. Only petitions that have been denied at the college level are forwarded to the Main Campus Standards Committee.

## OTHER REQUIREMENTS

The separate units of the university, such as colleges, divisions, schools, and departments, have specific requirements for graduation that must be satisfied for a baccalaureate degree. For those requirements, see the appropriate *General Catalog* section. Students are encouraged to consult with an academic advisor in planning a program to ensure that it meets the various requirements. A well-planned program may enable a student to concurrently satisfy a portion of the General Studies requirement together with a portion of a college or major requirement.

## UNIVERSITY GRADUATION REQUIREMENTS

### OVERVIEW OF GRADUATION REQUIREMENTS

At ASU, students take classes that fulfill four types of requirements. As illustrated in the "Graduation Requirements" diagram, on this page, some courses can fulfill two or more types of requirements, but other courses fulfill only one requirement. The total semester hours needed to graduate are represented by the largest circle. The university minimum is 120 semester hours. Some majors, however, require more than 120 semester hours.

Although the three shaded circles are equal in size and the white circle is larger than all three, the total number of semester hours for each type of requirement may vary.

**University Requirements.** The light gray circle represents university requirements. The General Studies requirement and the First-Year Composition requirement are among the university requirements. For General Studies, a minimum of 35 semester hours in five core and three awareness areas is required. For more information, see "General Studies," page 83.

**College Requirements.** The medium gray circle represents college requirements. Some colleges and schools have additional requirements, especially the College of Liberal Arts and Sciences. It is important that you understand the requirements of your college.

**Major.** The dark gray circle represents the requirements of the major. The semester hours required for a major may be as low as 30 hours or as high as 63 hours.

**Electives/Minor.** The white circle represents electives and the requirements of a minor. A minor typically adds an additional 18 to 25 semester hours. Though every student must eventually declare a major, a minor is not required. For more information on minors, see "Minors, Certificates, and Interdisciplinary Studies," page 108. Some courses, while providing semester hours toward graduation, fall outside the shaded circles and are not required in your program for graduation. These courses are electives. Some majors leave no room for electives within the minimum 120 semester hours required to graduate.

### GENERAL GRADUATION INFORMATION

**Graduation with Academic Recognition.** An undergraduate student must have completed at least 60 semester hours of resident credit at ASU to qualify for graduation with academic recognition for a baccalaureate degree.

The cumulative GPA determines the designation, as shown in the "Academic Recognition" table below.

Academic Recognition	
Cumulative GPA	Designation
3.40–3.59	<i>cum laude</i>
3.60–3.79	<i>magna cum laude</i>
3.80–4.00	<i>summa cum laude</i>

The cumulative GPA for these designations is based on only ASU resident course work. For example, ASU independent learning course grades are not calculated in the

honors GPA. All designations of graduation with academic recognition are indicated on the diploma and the ASU transcript. Graduation with academic recognition applies only to undergraduate degrees.

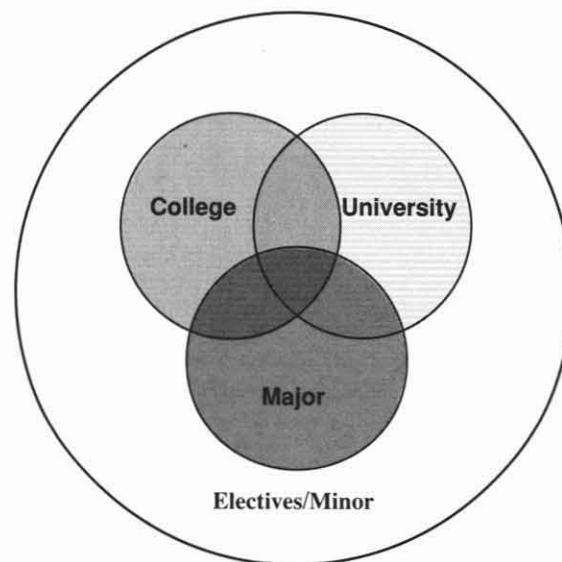
A student who has a baccalaureate degree from ASU and is pursuing a second baccalaureate degree at ASU (with a minimum of 30 hours of resident credit) is granted academic recognition on the second degree based on the semester hours earned subsequent to the posting of the first degree. If fewer than 60 semester hours are completed at ASU subsequent to completion of the first ASU degree, the level of academic recognition can be no higher than that obtained on the first degree. If 60 or more semester hours are completed at ASU after completion of the first ASU degree, the level of academic recognition is based on the GPA earned for the second ASU degree. Inquiries about graduation with academic recognition may be directed to the Graduation Section, 480/965-3256.

**Second Baccalaureate Degree.** The student seeking a second baccalaureate degree must meet admission criteria for that degree. After conferral of the first degree, a minimum of 30 semester hours in resident credit must be successfully completed at the ASU campus from which the second baccalaureate degree will be awarded. The student must meet all degree and university requirements of the second degree.

**Concurrent Degrees.** More than one baccalaureate degree may be pursued concurrently if prior approval is given by the standards committee(s) of the college(s) offering the degrees. Students may receive concurrent degrees if they meet the minimum requirements for both degrees.

**Graduate Degrees.** See "Graduate College," page 516, and "College of Law," page 323, for graduate degrees offered and statements of requirements for graduate degrees. A *Graduate Catalog* may be obtained from the Graduate College or the ASU Bookstore.

Graduation Requirements



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# General Studies

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A baccalaureate education should not only prepare students for a particular profession or advanced study, but for constructive and satisfying personal, social, and civic lives as well. In addition to depth of knowledge in a particular academic or professional discipline, students should also be broadly educated and develop the general intellectual skills they need to continue learning throughout their lives. Thus, the General Studies requirement complements the undergraduate program by helping students gain mastery of critical learning skills, investigate the traditional branches of knowledge, and develop the broad perspective that frees one to appreciate diversity and change across time, culture, and national boundaries.

Critical learning skills include proficiency in the use of language, mathematics, and quantitative methods as tools for acquiring, renewing, creating, and communicating knowledge. A broad education includes an understanding of the methods and concerns of traditional branches of knowledge—the arts and humanities, the social sciences, and the natural sciences. Developing perspective requires historical, global, and cross-cultural examination of knowledge of all kinds.

To help students achieve these educational goals, the General Studies Program includes five *core areas* and three *awareness areas*. The five *core areas* help students acquire critical learning skills and guide the exploration of the traditional branches of knowledge:

1. literacy and critical inquiry;
2. mathematics studies;
3. humanities and fine arts;
4. social and behavioral sciences; and
5. natural sciences.

The three *major areas* promote appreciation of cultural diversity within the contemporary United States, develop an international perspective, and foster an understanding of current human events through study of the past.

1. cultural diversity in the United States;
2. global awareness; and
3. historical awareness.

The course approved by the ASU Main General Studies Council for ASU Main and ASU East for meeting the General Studies requirement are noted in the “General Studies Courses” table, page 86; in the course descriptors; and in the *Schedule of Classes* each academic term. The courses approved by the ASU West General Studies Council can be found in the *ASU West Catalog* and in the *Schedule of Classes*.

## Meeting the General Studies Requirement

All students enrolled in a baccalaureate degree program must successfully complete a minimum of 35 semester hours of approved General Studies courses. Many General Studies courses are approved as satisfying more than one requirement. The following conditions govern the application of courses toward the General Studies requirement.

1. A single course may be used to satisfy one core area and a maximum of two awareness area requirements.
2. A single course may be used to satisfy a maximum of two awareness area requirements.
3. A single course cannot be used to satisfy two core area requirements, even if it is approved for more than one core area.

There is no limit to the number of advanced placement (AP) or College Level Examination Program (CLEP) credits that can be used to meet the General Studies requirement (see “Special Programs for Advanced Placement and Credit,” page 65). However, the natural sciences (SQ and SG) and literacy and critical inquiry (L) portions of the General Studies requirement are not satisfied by CLEP.

## FIVE CORE AREAS

### Literacy and Critical Inquiry (L)

Literacy is competence in written and oral discourse; critical inquiry is the gathering, interpretation, and evaluation of evidence. The literacy and critical inquiry requirement helps students sustain and extend their ability to reason critically and communicate clearly through language.

**L Requirement (Six Semester Hours).** Students must complete six semester hours from courses designated as L, at least three semester hours of which must be chosen from approved upper division courses, preferably in their major. Students must have completed ENG 101, 105, or 107 to take an L course.

### Mathematical Studies (MA and CS)

This core area has two categories: 1. Mathematics (MA) is the acquisition of essential skills in basic mathematics and requires the student to complete a course in college mathematics or college algebra or to demonstrate a higher level of skill by completing a course for which college algebra is a prerequisite, and 2. computer statistics/quantitative applications (CS) applies mathematical reasoning and requires students to complete a course in either the use of statistics/quantitative analyses or the use of the computer to assist in serious mathematical work.

**MA and CS Requirement (Six Semester Hours).** This requirement has two parts: 1) at least three semester hours

## GENERAL STUDIES

must be selected from courses designated MA, and at least three semester hours must be selected from courses designated CS; and (2) all students are expected to fulfill the MA requirement by the time they accumulate 30 hours of credit in residence at ASU. Any student who has more than 30 hours of resident ASU credit and has not fulfilled the mathematics (MA) requirement must enroll in an MA course or an appropriate prerequisite and continue to do so every semester until the mathematics requirement is met. College officers may grant waivers to the immediate and continual enrollment requirement only when there are scheduling conflicts detrimental to the student's academic progress.

### Humanities and Fine Arts (HU)

The humanities and fine arts explore, through critical and creative activities, questions of human experience and expression as these articulate the human condition and reflect basic human values. Although differing in method, both probe the universality of human experience and promote a broader and deeper understanding of an individual's relationship to self, culture, and nature.

**HU Requirement.** The requirements for humanities and fine arts (HU) are combined with the requirements for social and behavioral sciences (SB). See "Combined HU and SB Requirement," on this page.

### Social and Behavioral Sciences (SB)

The social and behavioral sciences provide scientific methods of inquiry and empirical knowledge about human behavior, both within society and individually. The forms of study may be cultural, economic, geographic, historical, lin-

guistic, political, psychological, or social. The courses in this area address the challenge of understanding the diverse natures of individuals and cultural groups who live together in a world of diminishing economic, linguistic, military, political, and social distance.

### Combined HU and SB Requirement (15 Semester Hours)

A total of 15 semester hours must be completed in the following two core areas: (1) humanities and fine arts (HU) and (2) social and behavioral sciences (SB). Two conditions must be satisfied: (1) six semester hours must be taken in one of these two core areas and nine hours in the other core area; and (2) three of the 15 semester hours must be at the upper-division level.

### Natural Sciences (SQ and SG)

The natural sciences help students appreciate the scope and limitations of science and its contributions to society. Natural science areas of study include anthropology, astronomy, biology, biochemistry, chemistry, experimental psychology, geology, microbiology, physical geography, physics, and plant biology. Knowledge of methods of scientific inquiry and mastery of basic scientific principles and concepts are stressed, specifically those that relate to matter and energy in living and nonliving systems. Firsthand exposure to scientific phenomena in the laboratory is important in developing and understanding the concepts, principles, and vocabulary of science.

General Studies courses that satisfy the natural science requirement are given one of two classifications: quantitative and general.



Moving day is always active as parents and students make dorm rooms cozy.

Franchette Enríquez photo

**Natural Science-Quantitative (SQ).** These laboratory courses include a substantial introduction to the fundamental behavior of matter and energy in physical and biological systems.

**Natural Science-General (SG).** These laboratory courses cover aspects of scientific inquiry that end themselves to more qualitative or descriptive discussions of science.

**SQ and SG Requirement (Eight Semester Hours).** Eight semester hours of courses designated SQ or SG must be selected. Of these, at least four semester hours must be taken from the SQ category.

### THREE AWARENESS AREAS

Students must complete courses that satisfy each of the three awareness areas. Courses that are listed for a core area and one or more awareness area may satisfy each of these requirements concurrently.

#### Cultural Diversity in the United States (C)

The objective of the cultural diversity requirement is to promote awareness and appreciation of cultural diversity within the contemporary United States. The objective is accomplished through the study of the cultural, social, or scientific contributions of women and minority groups, examination of their experiences in the United States, or exploration of successful or unsuccessful interactions between and among cultural groups. Awareness of cultural diversity and its multiple sources can illuminate the collective past, present, and future and also help students to achieve greater mutual understanding and respect.

#### Global Awareness (G)

The objective of the global awareness requirement is to help students recognize the need for an understanding of the values, elements, and social processes of cultures other than that of the United States. The global awareness area includes courses that recognize the nature of other contemporary cultures and the relationship of the American cultural system to generic human values and welfare.

#### Historical Awareness (H)

The objective of the historical awareness requirement is to help students develop knowledge of the past that can be useful in shaping the present and future. History is present in the languages, art, music, literature, philosophy, religion, and the natural sciences, as well as in the social science traditionally called history.

#### Transfer Credit

The Arizona General Education Curriculum (AGEC), offered by Arizona community colleges, is composed of 30 semester hours of lower division general education course work. Students who complete the AGEC have fulfilled the ASU First Year Composition requirement and all lower division portions of the General Studies requirement. Students must still take six upper division semester hours—three for L and three for SB or HU—to complete the ASU

General Studies requirement. If students transfer from Arizona community colleges without completing AGEC or from other accredited postsecondary institutions, they receive credit for General Studies based on course-by-course equivalency. See “Arizona General Education Curriculum (AGEC),” page 62.

### College or School, and Major Requirements

In addition to General Studies requirements, students must also complete college or school, and major requirements. Students are encouraged to work with their academic advisors to develop a program of study that efficiently meets all graduation requirements. A well-planned program should enable a student to concurrently satisfy requirements at the university, college, or school levels, and within their major.

### GENERAL STUDIES COURSES

The ASU Main and ASU East courses in the “General Studies Courses” table, page 86, satisfy the requirements of the five core areas and three awareness areas. General Studies courses are regularly reviewed. Since courses are occasionally added to and deleted from the list, students should always consult the *Schedule of Classes* each semester to see which courses currently meet the General Studies requirement.

A student receives the General Studies credit a course carries in the semester in which the course is taken.

The “Key to General Studies Credit Abbreviations” table, on this page, defines the abbreviations used. General Studies courses are also identified following course descriptions.

The campus codes “M” (for ASU Main) and “W” (for ASU West) identify the campus that maintains academic control over the course—i.e., course content, registration restrictions, General Studies designations, and other curricular matters. The campus code is not used in the catalogs but appears in the *Schedule of Classes*, on transcripts, and other enrollment and registration records.

#### Key to General Studies Credit Abbreviations

Code	Description
L	Literacy and critical inquiry core courses
MA	Mathematics core courses
CS	Computer statistics quantitative applications core courses
HU	Humanities and fine arts core courses
SB	Social and behavioral sciences core courses
SQ	Natural science—quantitative core courses
SG	Natural science—general core courses
C	Cultural diversity in the United States courses
G	Global awareness courses
H	Historical awareness courses
Or	Or
.	And



# GENERAL STUDIES

## General Studies Courses

		L	MA	CS	HU	SB	SQ	SG	C	G	H
---	493 Honors Thesis (See "Honors Courses," page 56. Only three semester hours may fulfill L requirement.)	L									
ACC	330 Enterprise Process Analysis and Design	L									
	430 Taxes and Business Decisions	L									
AES	301 Air Force Leadership Studies I	L									
	303 Air Force Leadership Studies II	L									
	401 National Security Affairs	L									
AFH	202 Art of Africa, Oceania, and the Americas (Cross-listed as ARS 202)				HU					G	H
	225 African American Religion (Cross-listed as REL 225)				HU				C		
	322 Malcolm and Martin (Cross-listed as REL 322)				HU				C		
	323 Black Religion: A Biographical Approach (Cross-listed as REL 323)				HU				C		
	333 American Ethnic Literature (Cross-listed as ENG 333)	L			HU				C		
	347 Jazz in America (Cross-listed as MUS 347)				HU						
	353 African American Literature: Beginnings Through the Harlem Renaissance (Cross-listed as ENG 353)	L			HU				C		
	354 African American Literature: Harlem Renaissance to the Present (Cross-listed as ENG 354)	L			HU				C		
AFR	210 Introduction to African American Studies								C		
	263 Elements of Intercultural Communication (Cross-listed as COM 263)					SB			C	G	
	317 Genes, Race, and Society					SB			C		H
	321 Wealth Distribution and Poverty (Cross-listed as JUS 321)					SB			C		
	371 Language, Culture, and Communication (Cross-listed as COM 371)					SB			C	G	
	460 Race, Gender, and Media (Cross-listed as MCO 460)								C		
	463 Intercultural Communication Theory and Research (Cross-listed as COM 463)					SB				G	
	493 Honors Thesis	L									
AFS	202 Ethnic Relations in the United States (Cross-listed as ASB 202)								C		H
	210 Introduction to Ethnic Studies in the U.S. (Cross-listed as APA 210/CCS 210)								C		
	363 African American History to 1865 (Cross-listed as HST 333)					SB			C		H
	364 African American History Since 1865 (Cross-listed as HST 334)					SB			C		H
	366 African Civilization Before 1850 (Cross-listed as ASB 366)					SB				G	H
	370 Family, Ethnic, and Cultural Diversity (Cross-listed as FAS 370)					SB			C		
	466 Peoples and Cultures of Africa (Cross-listed as ASB 466)					SB				G	H
AGB	161 Computer Applications for Agribusiness Industries			CS							
	258 International Agribusiness									G	
	351 Management Science			CS							
	360 Agribusiness Statistics			CS							
	414 Agribusiness Analysis	L									
	450 International Agricultural Development									G	
	455 Resource Management					SB					
AIS	180 Introduction to American Indian Studies								C		
	280 Indigenous Law and Society								C		
AMT	308 Air Transportation									G	
ANP	236 Introduction to Computer Modeling			CS							
APA	200 Introduction to Asian Pacific American Studies				HU	SB			C		
	210 Introduction to Ethnic Studies in the U.S. (Cross-listed as AFS 210/CCS 210)								C		
	310 Asian Pacific American Arts and Cultures				HU				C		
	315 Asian Pacific American Literature				HU				C		
	330 Asian Pacific American Genders and Sexualities					SB			C		
	340 Asian Pacific Americans and Media				HU				C		
	360 Asian Pacific American Experience				HU	SB			C		
	450 Asian Pacific American Contemporary Issues					SB			C		
APH	100 Introduction to Environmental Design (Cross-listed as DSC 100/PUP 100)				HU					G	H
	200 Introduction to Architecture				HU					G	
	300 World Architecture I/Western Cultures				HU					G	H
	304 American Architecture				HU						
	305 Contemporary Architecture				HU						



## General Studies Courses (continued)

	L	MA	CS	HU	SB	SQ	SG	C	G	H
313 History of Architecture I	L			HU					G	
314 History of Architecture II	L			HU					G	
411 History of Landscape Architecture (Cross-listed as PLA 310)										H
414 History of the City (Cross-listed as PUP 412)										H
441 Ancient Architecture				HU						
444 Baroque Architecture				HU						
446 20th-Century Architecture I				HU						
447 20th-Century Architecture II				HU						
ARA 311 Art Appreciation and Human Development				HU						
488 Understanding Art	L			HU						
ARB 201 Intermediate Arabic									G	
202 Intermediate Arabic									G	
ARS 100 Introduction to Art				HU						
101 Art of the Western World I				HU						H
102 Art of the Western World II				HU						H
201 Art of Asia				HU					G	H
202 Art of Africa, Oceania, and the Americas (Cross-listed as AFH 202)				HU					G	H
250 History of Photography				HU						
300 Introduction to Art				HU						
302 Art of Africa, Oceania, and the Americas				HU					G	H
340 Art in America				HU						H
400 History of Printmaking				HU						H
402 Art of Ancient Egypt				HU						H
404 Greek Art				HU						H
406 Roman Art				HU						H
410 Early Christian and Byzantine Art				HU						
412 Early Medieval Art				HU						H
414 Romanesque Art				HU						H
416 Gothic Art				HU						
418 Renaissance Art in Northern Europe				HU						
420 Early Renaissance Art in Italy				HU						H
422 Italian High Renaissance Art and Mannerism				HU						
424 Italian Baroque Art				HU						H
426 Art of the 17th Century in Northern Europe				HU						H
428 Art of the 18th Century				HU						H
430 Art of Spain and Its Colonies				HU						H
432 19th-Century French Art and Culture				HU						H
434 From Courbet to Cézanne: History of European Art 1860–WWI				HU						
436 Art at the Turn of the Century: 1885–1914				HU						
438 Art of the 20th Century I				HU						H
439 Art of the 20th Century II				HU						H
442 Critical Issues in American Painting I				HU						
443 Critical Issues in American Painting II				HU						
444 Modern American Art, 1900–1945				HU						H
458 Critical Theories in the Visual Arts				HU						
462 Pre-Columbian Art				HU						H
465 Native North American Art				HU						H
466 Native American Art of the Southwest				HU				C		H
468 Art of the Arctic and Northwest Coast				HU						
469 Mexican Art				HU						H
472 Art of China				HU						
473 Art of Japan				HU						
475 Chinese Painting				HU						
480 Research Methods	L									
485 Women in the Visual Arts	L									
ART 346 3D Computer Imaging and Animation			CS							
470 Computer Animation Portfolio			CS							

# GENERAL STUDIES

## General Studies Courses (continued)

			L	MA	CS	HU	SB	SQ	SG	C	G	H
ASB	102	Introduction to Cultural and Social Anthropology					SB				G	
	202	Ethnic Relations in the United States (Cross-listed as AFS 202)								C		H
	211	Women in Other Cultures				HU	SB				G	
	222	Buried Cities and Lost Tribes: Our Human Heritage				HU	SB				G	H
	223	Buried Civilizations of the Americas				HU	SB				G	H
	231	Archaeological Field Methods							SG			
	240	Introduction to Southeast Asia (Cross-listed as GCU 240/HST 240/POS 240/REL 240)									G	
	242	Asian American Experiences: An Anthropological Perspective	L							C		
	250	Anthropology Topics	L									
	302	Ethnographic Field Study in Mexico	L				SB				G	
	311	Principles of Social Anthropology					SB					
	321	Indians of the Southwest	L				SB			C		H
	322	Indians of Mesoamerica					SB				G	
	323	Indians of Latin America					SB				G	
	324	Peoples of the Pacific									G	
	325	Peoples of Southeast Asia									G	
	326	Human Impacts on Ancient Environments					SB					H
	330	Principles of Archaeology					SB					
	333	New World Prehistory	L				SB					
	335	Prehistory of the Southwest					SB			C		H
	337	Pre-Hispanic Civilization of Middle America				HU	SB				G	H
	338	Archaeology of North America					SB					H
	351	Psychological Anthropology					SB					
	353	Death and Dying in Cross-Cultural Perspective				HU	SB				G	
	355	Shamanism, Healing, and Consciousness				HU	SB					
	361	Old World Prehistory I										H
	362	Old World Prehistory II										H
	366	African Civilization Before 1850 (Cross-listed as AFS 366)					SB				G	H
	400	Cultural Factors in International Business									G	
	412	History of Anthropology	L				SB					
	416	Economic Anthropology	L				SB					
	462	Medical Anthropology: Culture and Health								C		
	466	Peoples and Cultures of Africa (Cross-listed as AFS 466)					SB				G	H
	471	Introduction to Museums	L									
	480	Introduction to Linguistics					SB					
	481	Language and Culture					SB					
	483	Sociolinguistics and the Ethnography of Communication					SB					
ASE	485	Engineering Statistics			CS							
ASM	101	Bones, Stones, and Human Evolution (for SG credit, if credit also earned in ASM 103)					SB		SG			
	103	Human Origins and the Development of Culture—Laboratory (if credit also earned in ASM 101)							SG			
	301	Peopling of the World					SB					
	342	Human Biological Variation							SG			
	344	Fossil Hominids										H
	348	Social Issues in Human Genetics					SB					
	452	Dental Anthropology							SG			
	455	Primate Behavior Laboratory	L									
AST	111	Introduction to Solar Systems Astronomy (if credit also earned in AST 113)						SQ				
	112	Introduction to Stars, Galaxies, and Cosmology (if credit also earned in AST 114)						SQ				
	113	Astronomy Laboratory I (if credit also earned in AST 111 or 321)						SQ				
	114	Astronomy Laboratory II (if credit also earned in AST 112 or 322)						SQ				
	321	Introduction to Planetary and Stellar Astrophysics (if credit also earned in AST 113)						SQ				
	322	Introduction to Galactic and Extragalactic Astrophysics (if credit also earned in AST 114)						SQ				

## General Studies Courses (continued)

			L	MA	CS	HU	SB	SQ	SG	C	G	H
BCH	467	Analytical Biochemistry Laboratory	L									
BIO	100	The Living World						SQ				
	120	Human Physiology							SG			
	187	General Biology I							SG			
	188	General Biology II						SQ				
	193	The Nature of Biological Science						SQ				
	201	Human Anatomy and Physiology I							SG			
	241	Human Genetics							SG			
	302	Cancer and Heart Disease	L									
	303	Radiation and Life	L									
	304	Radiation Medicine and Biology	L									
	316	History of Biology: Conflicts and Controversies (Cross-listed as HPS 330)										H
	318	History of Medicine (Cross-listed as HPS 331)										H
	319	Environmental Science (Nonmajor) (Cross-listed as PLB 320)								G		
	321	Introductory Ecology Laboratory	L									
	343	Genetic Engineering and Society	L									
	406	Computer Applications in Biology (Cross-listed as PLB 432)			CS							
	410	Techniques in Wildlife Conservation Biology	L									
	415	Biometry			CS							
	416	Professional Values in Science (Cross-listed as HPS 410)	L									
	419	Research Colloquium in Biology and Society	L									
	426	Limnology	L									
	428	Biogeography	L									
	435	Research Techniques in Animal Behavior	L									
	446	Principles of Human Genetics	L									
	470	Systematic Zoology	L									
	493	Honors Thesis	L									
BIS	301	Foundations of Interdisciplinary Studies	L									
	402	Senior Seminar	L									
BME	201	Introduction to Bioengineering	L									
	202	Global Awareness Within Biomedical Engineering Design	L			HU						
	413	Biomedical Instrumentation (if credit also earned in BME 423)	L									
	423	Biomedical Instrumentation Laboratory (if credit also earned in BME 413)	L									
BUS	301	Fundamentals of Management Communication	L									
	451	Business Research Methods	L									
CCS	101	Introduction to Chicana and Chicano Studies								C		
	111	Introduction to Chicana and Chicano Culture								C		
	210	Introduction to Ethnic Studies in the U.S. (Cross-listed as AFS 210/APA 210)								C		
	300	Chicana and Chicano Culture and Society								C		
CDE	232	Human Development					SB					
	430	Infant/Toddler Development in the Family					SB					
	437	Observational and Naturalistic Methods of Studying Children	L				SB					
CEE	486	Integrated Civil Engineering Design	L									
CED	111	Exploration of Education					SB					
CET	150	Digital Systems I			CS							
CHE	352	Transport Laboratories	L									
	461	Process Control			CS							
CHI	201	Second-Year Chinese I									G	
	202	Second-Year Chinese II									G	
	313	Third-Year Chinese I									G	
	314	Third-Year Chinese II									G	
	321	Chinese Literature	L			HU						
	322	Chinese Literature	L			HU					G	
	413	Introduction to Classical Chinese				HU						
	414	Introduction to Classical Chinese				HU						
CHM	101	Introductory Chemistry						SQ				
	107	Chemistry and Society						SQ				

# GENERAL STUDIES

## General Studies Courses (continued)

	L	MA	CS	HU	SB	SQ	SG	C	G	H
113 General Chemistry						SQ				
114 General Chemistry for Engineers						SQ				
115 General Chemistry with Qualitative Analysis						SQ				
116 General Chemistry						SQ				
117 General Chemistry for Majors I						SQ				
118 General Chemistry for Majors II						SQ				
231 Elementary Organic Chemistry (if credit also earned in CHM 235)						SQ				
235 Elementary Organic Chemistry Laboratory (if credit also earned in CHM 231)						SQ				
348 Physical Chemistry Laboratory I (if credit also earned in CHM 349 and 452)	L									
349 Physical Chemistry Laboratory II (if credit also earned in CHM 348 and 452)	L									
452 Inorganic Chemistry Laboratory (if credit also earned in CHM 348 and 349)	L									
CIS 200 Computer Applications and Information Technology			CS							
440 Systems Design and Electronic Commerce	L									
CLS 450 Principles of Clinical Laboratory Administration (if credit also earned in CLS 460)	L									
460 Principles of Clinical Laboratory Education (if credit also earned in CLS 450)	L									
COM 100 Introduction to Human Communication					SB					
110 Elements of Interpersonal Communication					SB					
222 Argumentation	L									
225 Public Speaking	L									
230 Small Group Communication					SB					
241 Introduction to Oral Interpretation	L			HU						
250 Introduction to Organizational Communication					SB					
263 Elements of Intercultural Communication (Cross-listed as AFR 263)					SB			C	G	
308 Advanced Research Methods in Communication	L									
316 Gender and Communication					SB			C		
319 Persuasion and Social Influence					SB					
320 Communication and Consumerism					SB					
321 Rhetorical Theory and Research	L			HU						H
323 Communication Approaches to Popular Culture								C		
325 Advanced Public Speaking	L									
344 Performance of Oral Traditions				HU				C		
357 Communication Technology and Information Diffusion					SB					
371 Language, Culture, and Communication (Cross-listed as AFR 371)					SB			C	G	
400 CIP: Communication in Professions				HU				C		
410 Interpersonal Communication Theory and Research					SB					
411 Communication in the Family					SB					
421 Rhetoric of Social Issues				HU						
426 Political Communication					SB					
441 Performance Studies				HU						
445 Narrative Performance				HU						
446 Performance of Literature Written by Women				HU				C		
450 Theory and Research in Organizational Communication					SB					
463 Intercultural Communication Theory and Research (Cross-listed as AFR 463)					SB				G	
CON 101 Construction and Culture: A Built Environment				HU					G	H
389 Construction Cost Accounting and Control			CS							
472 Development Feasibility Reports	L									
495 Construction Planning and Scheduling			CS							
496 Construction Contract Administration	L									
CSE 100 Principles of Programming with C++			CS							
180 Computer Literacy			CS							
181 Applied Problem Solving with Visual BASIC			CS							
200 Concepts of Computer Science			CS							
210 Object-Oriented Design and Data Structures			CS							
423 Microcomputer System Hardware	L									
438 Systems Programming	L									
CSH 310 Chicana and Chicano Folklore				HU				C		
351 Contemporary Chicana and Chicano Art				HU				C		



## General Studies Courses (continued)

		L	MA	CS	HU	SB	SQ	SG	C	G	H
	363 Chicana and Chicano Literature (Cross-listed as ENG 363)	L			HU				C		
	485 Chicana Writers	L			HU				C		
CSS	330 Chicana and Chicano Politics and Policy								C		
	331 Policy Issues in the Chicana and Chicano Urban Settings								C		
	336 Issues in Immigration and Migration								C		H
	432 Issues in Chicana and Chicano Gender								C		
DAH	100 Dance in World Cultures				HU					G	
	300 Focus on Dance				HU						
	301 Philosophy and Criticism of Dance	L			HU						
	302 Cross-Cultural Dance Studies	L			HU					G	
	401 Dance History				HU						
DAN	423 Dance, Computers, and Multimedia			CS							
DSC	100 Introduction to Environmental Design (Cross-listed as APH 100/PUP 100)				HU					G	H
	101 Design Awareness				HU					G	
	236 Introduction to Computer Modeling			CS							
ECE	100 Introduction to Engineering Design			CS							
	300 Intermediate Engineering Design	L									
	380 Probability and Statistics for Engineering Problem Solving			CS							
	400 Engineering Communications	L									
ECN	111 Macroeconomic Principles					SB					
	112 Microeconomic Principles					SB					
	306 Survey of International Economics (Cross-listed as IBS 306)					SB				G	
	313 Intermediate Macroeconomic Theory					SB					
	314 Intermediate Microeconomic Theory					SB					
	331 Comparative Economic Systems					SB				G	
	360 Economic Development					SB				G	
	365 Economics of Russia and Eastern Europe					SB				G	
	384 Economics of Social Behavior					SB					
	404 History of Economic Thought	L				SB					
	421 Earnings and Employment	L				SB					
	436 International Trade Theory					SB				G	
	438 International Monetary Economics					SB				G	
	441 Public Finance	L				SB					
	450 Law and Economics	L									
	480 Introduction to Econometrics			CS							
	493 Honors Thesis	L									
EDC	340 Schooling and Social Context	L									
EDP	303 Human Development	L									
	310 Educational Psychology					SB					
	454 Statistical Data Analysis in Education			CS							
EDT	321 Computer Literacy			CS							
	323 Computer Applications			CS							
EED	498 Language and Learning	L									
EEE	488 Senior Design Laboratory I (if credit also earned in EEE 489)	L									
	489 Senior Design Laboratory II (if credit also earned in EEE 488)	L									
ENG	200 Critical Reading and Writing About Literature	L			HU						
	201 World Literature				HU						H
	202 World Literature				HU						H
	204 Introduction to Contemporary Literature				HU						
	212 English Prose Style	L									
	215 Strategies of Academic Writing	L									
	216 Persuasive Writing on Public Issues	L									
	217 Writing Reflective Essays	L									
	218 Writing About Literature	L									
	221 Survey of English Literature				HU						H
	222 Survey of English Literature				HU						H
	241 Literatures of the United States to 1860				HU						

# GENERAL STUDIES

## General Studies Courses (continued)

	L	MA	CS	HU	SB	SQ	SG	C	G	H
242 Literatures of the United States, 1860–Present				HU						
245 Popular Culture Issues	L									
301 Writing for the Professions	L									
303 Classical Backgrounds of English Literature				HU						
312 English in Its Social Setting	L			HU	SB					
313 Phonology and Morphology	L									
321 Introduction to Shakespeare	L			HU						
326 English Drama 1660–1800				HU						
328 The Novel to Jane Austen				HU						H
331 American Drama	L			HU						
332 Major American Novels	L									
333 American Ethnic Literature (Cross-listed as AFH 333)	L			HU				C		
352 Short Story				HU						
353 African American Literature: Beginnings Through the Harlem Renaissance (Cross-listed as AFH 353)	L			HU				C		
354 African American Literature: Harlem Renaissance to the Present (Cross-listed as AFH 354)	L			HU				C		
355 European Dramatic Traditions	L			HU						
356 The Bible as Literature				HU						
357 Introduction to Folklore				HU						
359 American Indian Literatures	L			HU				C		
360 Western American Literature	L			HU						
361 Silent Film				HU						
362 Sound Film Genres				HU						
363 Chicana and Chicano Literature (Cross-listed as CSH 363)	L			HU				C		
364 Women and Literature				HU						
372 Document Production	L									
400 History of Literary Criticism	L			HU						H
413 History of the English Language				HU						
415 Topics in Medieval Literature and Culture				HU						
416 Chaucer in Middle English				HU						
418 Renaissance Literature	L			HU						
419 English Literature in the Early 17th Century	L			HU						
421 Shakespeare				HU						
422 Studies in Shakespeare				HU						
423 Renaissance Drama	L			HU						
424 Milton				HU						
425 Studies in Romanticism				HU						
427 Studies in 18th-Century Literature and Culture				HU						
430 Studies in Victorian Literature and Culture	L			HU						
440 Studies in American Literature and Culture				HU						
444 Studies in American Romanticism				HU						
445 Studies in American Realism	L			HU						
448 Studies in Irish Literature and Culture				HU						
452 Studies in the Novel				HU						
453 Studies in the American Novel				HU						
457 Studies in American Poetry				HU						
461 Studies in Women and Literature				HU						
464 Studies in Drama				HU						
470 Symbols and Archetypes in Children's Literature	L			HU						
471 Literature for Adolescents				HU						
472 Rhetorical Studies	L									
480 Methods of Teaching English: Composition	L									
482 Methods of Teaching English: Language	L									
493 Honors Thesis	L									
EPE 100 Introduction to Health and Wellness (Cross-listed as EXW 100/HES 100)					SB					
348 Psychological Skills for Optimal Performance					SB					

## General Studies Courses (continued)

		L	MA	CS	HU	SB	SQ	SG	C	G	H
	352 Psychosocial Aspects of Physical Activity					SB			C		
	400 Teaching Physical Activity Concepts	L									
	414 Electromyographic Kinesiology	L									
	441 Physiology of Women in Sport	L									
	443 Exercise Endocrinology	L									
	448 Applied Sport Psychology	L									
	452 Exercise Psychology					SB					
	460 Theory of Strength Training	L									
ERS	130 Introduction to Environmental Science						SQ				
	246 Environmental Conservation and Ecology									G	
	350 Environmental Statistics			CS							
	480 Ecosystem Management and Planning	L									
ETC	100 Languages of Technology			CS							
ETM	428 International Environmental Management									G	
EXW	100 Introduction to Health and Wellness (Cross-listed as EPE 100/HES 100)					SB					
	280 Global Issues in Exercise and Wellness									G	
	300 Foundations of Exercise and Wellness	L				SB					
	310 Computer Skills and Technology for Exercise and Wellness			CS							
	400 Stress Management for Wellness	L									
	442 Physical Activity in Health and Disease	L									
	450 Cultural and Social Issues in Exercise and Wellness					SB			C		
FAS	330 Personal Growth in Human Relationships					SB					
	331 Marriage and Family Relationships					SB					
	332 Human Sexuality					SB					
	361 Introduction to Family/Child Research Methods	L									
	370 Family, Ethnic, and Cultural Diversity (Cross-listed as AFS 370)					SB			C		
	431 Parent-Adolescent Relationships					SB					
	435 Advanced Marriage and Family Relationships	L				SB					
FIN	456 International Financial Management									G	
	461 Financial Cases and Modeling	L									
FLA	150 Introduction to East Asian Culture				HU					G	
	323 Survey of Literature of the Soviet Era in Translation	L			HU					G	
	400 Linguistics					SB					
	420 Foreign Literature in Translation				HU					G	
	421 Japanese Literature in Translation	L			HU					G	
FRE	201 Intermediate French I									G	
	202 Intermediate French II									G	
	205 Readings in French Literature									G	
	207 French for International Professions II									G	
	311 French Conversation									G	
	312 French Composition									G	
	319 Business French									G	
	321 French Literature	L			HU						H
	322 French Literature	L			HU						
	411 Advanced Spoken French									G	
	412 Advanced Written French									G	
	415 French Civilization I				HU						
	416 French Civilization II				HU					G	
	441 French Literature of the 17th Century				HU						
	442 French Literature of the 17th Century				HU						H
	445 French Literature of the 18th Century	L			HU						
	452 French Novel of the 19th Century				HU						
	453 Theater of the 19th Century	L			HU						
	461 Modern Narrative				HU						
	462 Modern Poetry				HU						
	471 The Literature of Francophone Africa and the Caribbean	L			HU						
GCU	102 Introduction to Human Geography					SB					

# GENERAL STUDIES

## General Studies Courses (continued)

		L	MA	CS	HU	SB	SQ	SG	C	G	H
	121					SB				G	
	141					SB				G	
	240									G	
	253					SB				G	
	322					SB			C		
	323					SB				G	
	325					SB				G	
	326					SB				G	
	327					SB				G	
	328					SB				G	
	332					SB				G	
	344					SB			C		
	350					SB				G	
	351					SB				G	
	352					SB				G	
	357					SB					
	359					SB				G	H
	360					SB				G	
	361					SB					
	364					SB				G	
	421					SB			C		
	423					SB				G	
	424					SB				G	
	425					SB				G	
	426					SB				G	
	441					SB					
	442					SB					
	444					SB					
	455					SB					H
	474					SB					
	495				CS						
	496										
GER	201									G	
	202									G	
	311									G	
	312									G	
	313									G	
	319									G	
	411									G	
	412									G	
	415										H
	416										H
	421										
	422										
	453									G	H
GIT	212										
	312										
GLG	101							SQ		G	
	102								SG		H
	103							SQ			
	104								SG		
	105								SG		
	110								SG	G	



## General Studies Courses (continued)

		L	MA	CS	HU	SB	SQ	SG	C	G	H
	111							SG			
	410			CS							
	451	L									
	452	L									
GPH	111						SQ				
	210									G	
	211	L									
	212							SG			
	214							SG			
	314				HU					G	
	370			CS							
	371			CS							
	373			CS							
	381									G	
	414									G	
	418	L									
	433									G	
	471			CS							
	473			CS							
GRA	318				HU						
	345	L									
GRK	301				HU						
	302				HU						
GRN	430					SB					
HCR	210				HU						
	220	L									
	230								C	G	
HEB	201									G	
	202									G	
	375				HU					G	
HES	100					SB					
HON	171	L			HU						H
	172	L			HU						H
	371	L			HU						
	372	L			HU					G	
	373	L			HU						
	374				HU					G	
	375	L			HU						
	376	L			HU						
	377	L			HU						
	493	L									
HPS	322				HU						H
	323				HU						H
	325				HU					G	H
	330										H
	331										H
	410	L									
HSA	220	L									
HST	101									G	H
	102					SB					H
	103					SB					H
	104					SB				G	H
	105					SB					H
	106					SB				G	H
	107					SB				G	H
	108					SB				G	H
	109					SB					H

## GENERAL STUDIES

### General Studies Courses (continued)

	L	MA	CS	HU	SB	SQ	SG	C	G	H
110 The United States Since 1865					SB					H
200 Historical Themes					SB					H
201 Historical Themes in Asia					SB					H
202 Historical Themes in Europe					SB					H
203 Historical Themes in Latin America					SB					H
204 Historical Themes in the United States					SB					H
210 American Social History	L				SB					H
211 American Jewish History					SB					H
212 American Military History					SB					H
240 Introduction to Southeast Asia (Cross-listed as ASB 240/GCU 240/POS 240/REL 240)									G	
300 Historical Inquiry	L				SB					H
302 Studies in History					SB					H
303 Studies in Asian History					SB					H
304 Studies in European History					SB					H
305 Studies in Latin American History					SB					H
306 Studies in United States History					SB					H
309 Exploration and Empire	L									H
310 Film as History				HU						
313 American Cultural History to 1865					SB					H
314 American Cultural History Since 1865					SB					H
315 Political History of the United States					SB					H
316 20th-Century U.S. Foreign Relations					SB				G	H
318 United States Labor History					SB					H
319 U.S. Urban History to 1850					SB					H
320 U.S. Urban History Since 1850					SB					H
321 Constitutional History of the United States to 1865					SB					H
322 Constitutional History of the United States Since 1865					SB					H
325 Immigration and Ethnicity in the United States					SB			C		H
327 Women in U.S. History, 1600–1880					SB			C		H
328 Women in U.S. History, 1880–1980					SB			C		H
329 Women in 20th-Century U.S. West								C		H
330 Mexican Women in the United States: Conquests and Migrations	L				SB			C		H
331 Mexican American History to 1900					SB					H
332 Mexican American History Since 1900					SB			C		H
333 African American History to 1865 (Cross-listed as AFS 363)					SB			C		H
334 African American History Since 1865 (Cross-listed as AFS 364)					SB			C		H
337 American Indian History to 1900					SB			C		H
338 American Indian History Since 1900					SB			C		H
341 The U.S. West in the 19th Century					SB					H
342 The U.S. West in the 20th Century					SB					H
343 The American Southwest	L				SB					H
344 Arizona					SB					H
347 Ancient Greece					SB					H
348 Rome					SB					H
349 The Early Middle Ages					SB					H
350 The Later Middle Ages					SB					H
351 Renaissance Europe	L				SB					H
352 Europe's Reformations	L				SB					H
353 The Old Regime in Europe					SB					H
354 Revolutionary Europe					SB					H
355 Total War and the Crisis of Modernity					SB				G	H
356 Europe Since 1945					SB				G	H
358 Jewish History from the Bible to 1492					SB					H
359 Jewish History from 1492 to 1948					SB				G	H
361 Witchcraft and Heresy in Europe (Cross-listed as REL 374)	L									H
362 Sex and Society in Classical and Medieval Europe					SB					H

## General Studies Courses (continued)

	L	MA	CS	HU	SB	SQ	SG	C	G	H
363 Sex and Society in Early Modern Europe					SB					H
364 Sex and Society in Modern Europe	L				SB					H
365 Women in Europe	L			HU	SB					H
366 England to 1689					SB					H
367 Modern Britain					SB					H
368 Culture and Imagination in European History				HU						H
370 Eastern Europe in Transition					SB				G	H
372 The Modern Middle East					SB				G	H
375 Colonial Latin America					SB					H
376 Modern Latin America					SB					H
377 Women in Colonial Latin America										H
378 Latin American Women: The National Period					SB				G	H
380 Cultural History of Latin America					SB					H
383 China					SB					H
384 China					SB				G	H
385 Chinese Science and Medicine (Cross-listed as HPS 325)				HU					G	H
386 Interpreting China's Classics (Cross-listed as HUM 312)	L			HU						H
387 Japan	L				SB					H
388 Japan					SB				G	H
391 Modern Southeast Asia					SB				G	H
405 Colonial American History to 1763					SB					H
406 The American Revolution, 1763–1789					SB					H
407 The Early U.S. Republic, 1789–1850	L				SB					H
408 Civil War and Reconstruction	L				SB					H
409 The Emergence of the Modern United States, 1877 to 1918					SB					H
410 The Modern United States, 1918 to 1945					SB					H
411 The Postwar United States, 1945 to 1973					SB					H
412 The Contemporary United States, 1973 to the Present					SB					H
414 The Modern U.S. Economy					SB					H
415 Unequal Sisters: Women and Political and Cultural Change	L				SB			C		H
416 Indian History of the Southwest					SB			C		H
417 Topics in Mexican American History					SB			C		H
423 The Tudor Monarchy					SB					H
424 The Stuart Transformation of England					SB					H
426 The British Empire					SB					H
427 The French Revolution and the Napoleonic Era					SB					H
428 Modern France					SB				G	H
429 Modern Germany					SB				G	H
430 Hitler: Man and Legend					SB					H
431 Eastern Europe and the Balkans Before 1914					SB					H
432 Eastern Europe and the Balkans in the 20th Century					SB				G	H
435 The Russian Empire					SB					H
436 The Soviet Experiment					SB				G	H
437 Spain Through the Golden Age				HU	SB					H
438 Modern Spain				HU	SB				G	H
441 Spanish South America					SB					H
442 Spanish South America					SB					H
443 The United States and Latin America					SB				G	H
445 20th-Century Cuba					SB				G	H
446 Colonial Mexico					SB					H
447 Modern Mexico					SB					H
451 Chinese Cultural History					SB					H
452 Chinese Cultural History					SB				G	H
453 The People's Republic of China					SB				G	H
455 The United States and Japan					SB				G	H
456 The Vietnam War					SB				G	H
460 History of Fire	L									H

# GENERAL STUDIES

## General Studies Courses (continued)

		L	MA	CS	HU	SB	SQ	SG	C	G	H
	493 Honors Thesis	L									
	498 PS: History Pro-Seminar	L									
HUM	110 Contemporary Issues in Humanities				HU						
	200 Encountering the Humanities				HU						
	260 Introduction to Islam (Cross-listed as REL 260)				HU					G	
	301 Humanities in the Western World	L			HU						H
	302 Humanities in the Western World	L			HU						H
	310 Japanese Cities and Cultures to 1800 (Cross-listed as REL 355)	L			HU						H
	312 Interpreting China's Classics (Cross-listed as HST 386)	L			HU						H
	340 Contemporary American Film and Popular Culture				HU						
	401 The Culture and Legacy of the European Enlightenment				HU						H
	420 Interpreting Latin America				HU					G	H
	440 Los Angeles and Cultural Theory	L			HU				C		
	450 Technology and Culture	L			HU						
	460 Postmodern Culture and Interpretation	L									
	462 Psychoanalysis and Culture	L			HU	SB					
	465 Narrative in the Human Sciences	L			HU						
	498 Pro-Seminar in the Humanities: Theory and Culture	L			HU						
IBS	300 Principles of International Business									G	
	306 Survey of International Economics (Cross-listed as ECN 306)					SB				G	
	400 Cultural Factors in International Business								C	G	
	493 International Honors Thesis	L									
IDN	201 Intermediate Indonesian I									G	
	202 Intermediate Indonesian II									G	
IED	410 History of American Indian Education					SB			C		H
	430 Issues in Language and Literacy of Indigenous Peoples				HU	SB			C		
	444 The Role of Governments in Native Education Policy and Administration					SB					
	460 Yaqui History and Culture				HU	SB			C		H
IEE	305 Information Systems Engineering			CS							
	374 Quality Control			CS							
	463 Computer-Aided Manufacturing and Control			CS							
	475 Simulating Stochastic Systems			CS							
	476 Operations Research Techniques/Applications			CS							
	490 Project in Design and Development	L									
IND	316 20th-Century Design I				HU						H
	317 20th-Century Design II				HU						H
	470 Professional Practice for Industrial Design	L									
INT	223 Interior Design Issues and Theories				HU						
	310 History of Interior Design I				HU						H
	311 History of Interior Design II				HU						H
	412 History of Decorative Arts in Interiors				HU						
	442 Specifications and Documents for Interiors	L									
ITA	201 Intermediate Italian									G	
	202 Intermediate Italian									G	
	311 Italian Composition and Conversation									G	
	312 Italian Composition and Conversation									G	
	314 Advanced Italian									G	
	325 Introduction to Italian Literature				HU						
	415 Italian Civilization	L			HU					G	
	425 Italian American Culture	L									
	430 Italian Literature of the Middle Ages				HU						
	441 Dante: <i>Divina Commedia</i>	L			HU						
	443 Italian Literature of the Renaissance				HU						H
	446 Italian Literature of the 18th and 19th Centuries				HU						
	449 20th-Century Italian Literature				HU					G	
ITM	440 Introduction to International Business									G	
JMC	201 Journalism Newswriting	L									



## General Studies Courses (continued)

		L	MA	CS	HU	SB	SQ	SG	C	G	H
	202	Radio-Television Writing	L								
	301	Reporting	L								
	315	Broadcast News Reporting	L								
JPN	201	Second-Year Japanese I								G	
	202	Second-Year Japanese II								G	
	311	Japanese Conversation and Composition								G	
	312	Japanese Conversation and Composition								G	
	313	Third-Year Japanese I								G	
	314	Third-Year Japanese II								G	
	321	Japanese Literature	L		HU					G	
JUS	100	The Justice System				SB					
	200	Topics in Concepts and Issues of Justice				SB					
	302	Basic Statistical Analysis in Justice Studies		CS							
	320	Community and Social Justice				SB			C		
	321	Wealth Distribution and Poverty (Cross-listed as AFR 321)				SB			C		
	329	Domestic Violence				SB					
	350	Immigration and Justice				SB			C		
	360	Law and Social Control				SB					
	375	Crime and the Mass Media				SB					
	385	Justice and Everyday Life				SB					
	404	Imperatives of Proof	L								
	405	Economic Justice				SB				G	
	415	Gender and International Development	L							G	
	420	Woman, Work, and Justice				SB			C		
	425	Race, Gender, and Crime	L			SB			C		
	430	Social Protest, Conflict, and Change	L			SB			C		
	440	Administration and Justice	L								
	450	Alternatives to Incarceration	L								
	463	Discretionary Justice				SB					
	465	Death Penalty in the United States	L								
	469	Political Deviance and the Law	L			SB			C		
	470	Alternative Dispute Resolution	L			SB			C		
	474	Legislation of Morality	L			SB			C		
	477	Youth and Justice	L			SB					
	479	Law and Disputing				SB					
KOR	201	Second-Year Korean I								G	
	202	Second-Year Korean II								G	
	250	Korean Culture and Society								G	
LAT	201	Intermediate Latin			HU						
	202	Intermediate Latin			HU						
	421	Roman Literature			HU						
	422	Roman Literature			HU						
MAE	468	Aerospace Systems Design	L								
	490	Projects in Design and Development	L								
MAT	114	College Mathematics		MA							
	117	College Algebra		MA							
	119	Finite Mathematics		MA							
	170	Precalculus		MA							
	210	Brief Calculus		MA							
	251	Calculus for Life Sciences		MA							
	260	Technical Calculus I		MA							
	261	Technical Calculus II		MA							
	262	Technical Calculus III		MA							
	270	Calculus with Analytic Geometry I		MA							
	271	Calculus with Analytic Geometry II		MA							
	272	Calculus with Analytic Geometry III		MA							
	274	Elementary Differential Equations		MA							

## GENERAL STUDIES

### General Studies Courses (continued)

		L	MA	CS	HU	SB	SQ	SG	C	G	H
	275 Modern Differential Equations		MA								
	290 Calculus I		MA								
	300 Mathematical Structures	L									
	351 Mathematical Methods for Genetic Analysis			CS							
	419 Introduction to Linear Programming			CS							
	421 Applied Computational Methods			CS							
	423 Numerical Analysis I			CS							
	425 Numerical Analysis II			CS							
	427 Computer Arithmetic			CS							
	451 Mathematical Modeling			CS							
MBB	245 Cellular and Molecular Biology (if credit also earned in MBB 246)						SQ				
	246 Cellular and Molecular Biology Laboratory (if credit also earned in MBB 245)						SQ				
	343 Genetic Engineering and Society	L									
	490 Capstone: Issues in Biotechnology	L									
MCE	446 Understanding the Culturally Diverse Child								C		
MCO	110 Introduction to Mass Communication					SB					
	120 Media and Society					SB					
	402 Mass Communication Law	L									
	418 History of Mass Communication					SB					H
	430 International Mass Communication									G	
	450 Visual Communication				HU						
	456 Political Communication				SB						
	460 Race, Gender, and Media (Cross-listed as AFR 460)								C		
MET	416 Applied Computer-Integrated Manufacturing			CS							
MHL	201 MacLiteracy for Musicians			CS							
	344 Music in World Cultures				HU					G	
	352 The Evolution of Jazz										H
	363 Survey of Russian Music				HU						
	438 Music in the Classic Era										H
	439 Music in the 19th Century	L									H
	441 Music of the Baroque Era	L									
	447 Music Since 1900	L									
	466 North American Indian Music	L			HU				C		
MIC	205 Microbiology (if credit also earned in MIC 206)							SG			
	206 Microbiology Laboratory (if credit also earned in MIC 205)							SG			
	302 Advanced Bacteriology Laboratory (if credit also earned in MIC 401)	L									
	401 Research Paper (if credit also earned in MIC 302)	L									
MIS	410 American Defense Policy I					SB					
	412 American Defense Policy II					SB					
	414 Comparative Defense Policy Analysis					SB					
	416 Soviet/C.I.S. Foreign and Defense Policies					SB					
MKT	460 Strategic Marketing	L									
MUE	381 Music Therapy Research	L									
MUS	340 Survey of Music History				HU						H
	347 Jazz in America (Cross-listed as AFH 347)				HU						
	354 Popular Music				HU						
	355 Survey of American Music				HU						H
	356 Survey of the Musical Theatre				HU						
NTR	344 Nutrition Services Management	L									
	348 Cultural Aspects of Food								C		
	448 Community Nutrition	L									
	450 Nutrition in the Life Cycle I					SB					
NUR	362 Professional Development II: Nursing Research	L									
	391 Registered Nurse Mobility I: Professional Development	L									
OPM	450 Changing Business Processes	L									
PGS	101 Introduction to Psychology					SB					
	222 Human Sexual Behavior					SB					

## General Studies Courses (continued)

	L	MA	CS	HU	SB	SQ	SG	C	G	H
270 Psychology of Adjustment					SB					
304 Effective Thinking	L									
306 Environmental Psychology					SB					
315 Personality Theory and Research					SB					
341 Developmental Psychology					SB					
350 Social Psychology					SB					
351 Honors Social Psychology	L				SB					
365 Community Psychology					SB					
414 History of Psychology	L				SB					
427 Psychology of Aging	L				SB					
441 Cognitive Development	L				SB					
443 Abnormal Child Psychology	L				SB					
444 Adolescent Psychology and Psychopathology	L									
445 Child Language and Drawing					SB					
446 Social Development	L									
450 Social Perception and Cognition	L									
451 Stereotyping, Prejudice, and Discrimination	L									
452 Applied Social Psychology	L									
461 Interpersonal Influence					SB					
463 Advanced Psychology of Adjustment	L									
465 Psychology of Stress and Coping	L									
466 Abnormal Psychology					SB					
467 Psychology of Magical Beliefs	L									
PHI 101 Introduction to Philosophy				HU						
103 Principles of Sound Reasoning	L			HU						
105 Introduction to Ethics				HU						
300 Philosophical Argument and Exposition	L									
301 History of Ancient Philosophy				HU						H
302 History of Modern Philosophy				HU						H
304 Existentialism				HU						
305 Ethical Theory				HU						
306 Applied Ethics				HU						
307 Philosophy of Law				HU						
308 Philosophy of Art				HU						
309 Social and Political Philosophy				HU						
310 Environmental Ethics				HU						
311 Philosophy in Literature				HU						
312 Theory of Knowledge				HU						
314 Philosophy of Science				HU						
315 Philosophy of Language				HU						
316 Metaphysics				HU						
317 Philosophy of Mind				HU						
318 Philosophy of Religion				HU						
319 Philosophy of Computing			CS	HU						
325 Philosophy of Social Science				HU	SB					
332 19th-Century Philosophy				HU						
335 History of Ethics				HU						
402 Empiricism				HU						
403 Contemporary Analytic Philosophy				HU						
PHS 110 Fundamentals of Physical Science						SQ				
208 Patterns in Nature (Cross-listed as STE 208)						SQ				
PHY 101 Introduction to Physics						SQ				
111 General Physics (if credit also earned in PHY 113)						SQ				
112 General Physics (if credit also earned in PHY 114)						SQ				
113 General Physics Laboratory (if credit also earned in PHY 111)						SQ				
114 General Physics Laboratory (if credit also earned in PHY 112)						SQ				
121 University Physics I: Mechanics (if credit also earned in PHY 122)						SQ				

## GENERAL STUDIES

### General Studies Courses (continued)

		L	MA	CS	HU	SB	SQ	SG	C	G	H
	122 University Physics Laboratory I (if credit also earned in PHY 121)						SQ				
	131 University Physics II: Electricity and Magnetism (if credit also earned in PHY 132)						SQ				
	132 University Physics Laboratory II (if credit also earned in PHY 131)						SQ				
	150 Physics I						SQ				
	151 Physics II						SQ				
	201 Mathematical Methods in Physics I			CS							
	252 Physics III						SQ				
	334 Advanced Laboratory I (if credit also earned in PHY 420)	L									
	420 Research Paper (if credit also earned in PHY 334)	L									
PLA	101 Landscape and Society				HU					G	
	222 Computers in Landscape Architecture			CS							
	310 History of Landscape Architecture (Cross-listed as APH 411)										H
	411 Landscape Architecture Theory and Criticism	L									
	420 Theory of Urban Design				HU						
	485 International Field Studies in Planning and Landscape Architecture (Cross-listed as PUP 485)									G	
PLB	108 Concepts in Plant Biology						SQ				
	200 Biology of Plants (if credit also earned in PLB 201)						SQ				
	201 Biology of Plants Laboratory (if credit also earned in PLB 200)						SQ				
	260 Plants in Cities: Introduction to Urban Horticulture							SG			
	300 Comparative Plant Diversity	L						SG			
	320 Environmental Science (Nonmajor) (Cross-listed as BIO 319)									G	
	414 Plant Pathology	L									
	430 Statistical Analyses in Environmental Science			CS							
	432 Computer Applications in Biology (Cross-listed as BIO 406)			CS							
POR	201 Intermediate Portuguese									G	
	313 Portuguese Composition and Conversation									G	
	314 Portuguese Composition and Conversation									G	
	321 Luso-Brazilian Literature				HU						
	472 Luso-Brazilian Civilization				HU					G	
POS	101 Political Ideologies					SB					
	110 Government and Politics					SB					
	150 Comparative Government					SB				G	
	160 Global Politics					SB				G	
	220 Political Issues and Public Policy					SB					
	230 Current Issues in National Politics	L				SB					
	240 Introduction to Southeast Asia (Cross-listed as ASB 240/GCU 240/HST 240/REL 240)									G	
	260 Current Issues in International Politics	L				SB				G	
	270 American Legal System					SB					
	300 Contemporary Controversies in Global Politics					SB				G	
	301 Empirical Political Inquiry					SB					
	310 American National Government					SB					
	313 The Congress					SB					
	314 The American Presidency					SB					
	315 The Supreme Court					SB					
	316 State and Local Government					SB					
	320 Public Administration					SB					
	325 Public Policy Development					SB					
	330 Contemporary Controversies in Domestic Politics					SB					
	331 Public Opinion					SB					
	332 American Political Parties					SB					
	333 Interest Groups					SB					
	336 Electoral Behavior					SB					
	340 History of Political Philosophy I				HU						H
	341 History of Political Philosophy II				HU						H



## General Studies Courses (continued)

	L	MA	CS	HU	SB	SQ	SG	C	G	H
346 Problems of Democracy				HU						
350 Comparative Politics					SB				G	
351 Democratization					SB				G	
355 Russia and Successor States					SB				G	
356 Western Europe					SB				G	
357 South Asia Politics					SB				G	
358 Southeast Asia					SB				G	
359 African Politics and Society					SB				G	
360 World Politics					SB				G	
361 American Foreign Policy					SB				G	
364 U.S. National Security Analyses					SB					
370 Law and Society					SB					
401 Political Statistics			CS							
410 Urban Government and Politics					SB					
417 The Arizona Political System					SB					
422 Politics of Bureaucracy					SB					
423 Politics of Budgeting					SB					
426 Elements of Public Policy					SB					
431 Campaigns and Elections					SB					
433 Money and Politics					SB					
434 Media and Politics					SB					
435 Women and Politics					SB			C		
439 Minority Group Politics in America					SB			C		
442 American Political Thought				HU						
443 Topics in Contemporary Political Theory				HU						
445 Asian Political Thought					SB				G	
451 China, Japan, and the Koreans					SB				G	
452 China					SB				G	
453 South America					SB				G	
454 Mexico					SB				G	
455 Central America and the Caribbean					SB				G	
459 South and Southern Africa					SB				G	
463 Inter-American Relations					SB				G	
465 International Organization and Law					SB				G	
467 International Security					SB				G	
468 Comparative Asian Foreign Policies					SB				G	
471 Constitutional Law I					SB					
472 Constitutional Law II					SB					
485 Political Economy					SB					
486 International Political Economy					SB				G	
498 Pro-Seminar	L									
PSY 230 Introduction to Statistics			CS							
290 Research Methods	L						SG			
330 Statistical Methods			CS							
390 Experimental Psychology	L									
420 Analysis of Behavior	L									
424 Genetic Psychology	L									
425 Biological Bases of Behavior	L									
426 Neuroanatomy	L									
434 Cognitive Psychology	L									
437 Human Factors	L									
498 PS: Behavioral Neuroscience Research	L									
PUP 100 Introduction to Environmental Design (Cross-listed as APH 100/DSC 100)				HU					G	H
200 The Planned Environment				HU						H
236 Introduction to Computer Modeling			CS							
301 Introduction to Urban Planning	L									
412 History of the City (Cross-listed as APH 414)										H

# GENERAL STUDIES

## General Studies Courses (continued)

		L	MA	CS	HU	SB	SQ	SG	C	G	H
	420 Theory of Urban Design				HU						
	445 Women and Environments								C		
	452 Ethics and Theory in Planning	L									
	485 International Field Studies in Planning and Landscape Architecture (Cross-listed as PLA 485)									G	
QBA	221 Statistical Analysis			CS							
	321 Applied Quality Analysis I	L									
REC	120 Leisure and the Quality of Life					SB					
	160 Leisure and Society					SB					
	305 Introduction to Travel and Tourism									G	
	330 Programming of Recreation Services	L									
	380 Wilderness and Parks in America					SB					H
	458 International Tourism									G	
REL	100 Religions of the World				HU					G	
	200 The Study of Religious Traditions	L			HU					G	
	201 Religion and the Modern World	L			HU						
	202 Religion and Popular Culture				HU				C		
	203 Saints and Sinners: Explorations in Sacred Biography				HU						H
	205 Living and Dying				HU						
	210 Introduction to Judaism	L			HU						H
	225 African American Religion (Cross-listed as AFH 225)				HU				C		
	240 Introduction to Southeast Asia (Cross-listed as ASB 240/GCU 240/HST 240/POS 240)									G	
	260 Introduction to Islam (Cross-listed as HUM 260)				HU					G	
	270 Introduction to Christianity				HU						
	301 Comparative Mysticism				HU						
	305 Ritual, Symbol, and Myth	L			HU						
	310 Western Religious Traditions				HU						H
	315 Hebrew Bible (Old Testament)	L			HU						H
	317 Introduction to Rabbinic Judaism				HU						H
	318 Contemporary American Jewish Identities (Cross-listed as SOC 375)				HU	SB			C		
	320 American Religious Traditions				HU				C		H
	321 Religion in America				HU				C		H
	322 Malcolm and Martin (Cross-listed as AFH 322)				HU				C		
	323 Black Religion: A Biographical Approach (Cross-listed as AFH 323)				HU				C		
	326 U.S. Latino Religion and Culture				HU				C		
	330 Native American Religious Traditions				HU				C		
	331 History of Native American Religious Traditions	L			HU				C		H
	332 South American Indian Religions				HU					G	
	344 Religion and Values in Japanese Life				HU					G	
	345 Asian Religious Traditions				HU					G	
	350 Hinduism	L			HU					G	
	351 Buddhism	L			HU					G	
	355 Japanese Cities and Cultures to 1800 (Cross-listed as HUM 310)	L			HU						H
	365 Islamic Civilization				HU						H
	366 Islam in the Modern World				HU					G	H
	371 New Testament				HU						
	372 Formation of the Christian Tradition				HU						H
	374 Witchcraft and Heresy in Europe (Cross-listed as HST 361)	L									H
	377 Religion in Russia				HU						H
	379 Religion, Nationalism, and Ethnic Conflict				HU					G	
	381 Religion and Moral Issues	L			HU						
	382 Religion, Magic, and Science	L			HU						
	385 Contemporary Western Religious Thought	L			HU						
	386 America and the Holocaust				HU	SB					
	390 Women and Religion				HU					G	
	410 Judaism in Modern Times				HU						H

## General Studies Courses (continued)

		L	MA	CS	HU	SB	SQ	SG	C	G	H
	415 The Jewish Mystical Tradition				HU						
	420 Religion in American Life and Thought				HU						
	426 American Preachers and Preaching: The Sermon in America				HU						
	427 American Religious Thought				HU						H
	444 Religion in Japan				HU					G	H
	460 Studies in Islamic Religion				HU					G	
	470 Religion in the Middle Ages				HU						H
	471 Reformation and Modern Christianity				HU						H
	480 Religion and Global Politics									G	
RUS	201 Intermediate Russian									G	
	202 Intermediate Russian									G	
	211 Basic Russian Conversation									G	
	212 Basic Russian Conversation									G	
	311 Russian Composition and Conversation									G	
	312 Russian Composition and Conversation									G	
	321 Survey of Russian Literature				HU						H
	322 Survey of Russian Literature	L			HU						
	323 Survey of Literature of the Soviet Era	L			HU					G	
	411 Advanced Composition and Conversation I									G	
	412 Advanced Composition and Conversation II									G	
	420 Russian Poetry	L			HU						
	421 Pushkin	L			HU						
	423 Dostoyevsky	L			HU						
	424 Tolstoy	L			HU						
	425 Chekhov	L			HU						
	426 Literatures of the Nationalities of the Former Soviet Union	L			HU					G	
	427 Russian Short Story	L			HU						
	441 Survey of Russian Culture	L			HU					G	H
SCA	250 Introduction to Scandinavian Culture				HU					G	H
	316 Scandinavian Cinema				HU					G	
	450 Masterpieces of Scandinavian Literature	L			HU						
SCM	455 Research and Negotiation	L									
SHS	367 Language Science					SB					
	465 Speech and Language Acquisition					SB					
SOC	101 Introductory Sociology					SB					
	220 Sport and Society					SB					
	270 Racial and Ethnic Relations					SB			C		
	301 Principles of Sociology					SB					
	312 Sociology of Adolescence					SB					
	315 Courtship and Marriage					SB					
	318 Overview of Aging					SB					
	321 Sociology of Work					SB					
	331 Environmental Sociology					SB				G	
	332 Urban Sociology					SB				G	
	333 Population					SB				G	
	340 The Sociology of Deviance					SB					
	341 Modern Social Problems					SB					
	352 Social Change					SB				G	H
	360 Sociological Psychology					SB					
	361 Variant Sexuality					SB					
	363 Men and Masculinity					SB					
	365 The Sociology of Mass Communication					SB					
	375 Contemporary American Jewish Identities (Cross-listed as REL 318)				HU	SB			C		
	390 Social Statistics I			CS							
	391 Sociological Research					SB					
	415 The Family					SB					
	416 Marriage Problems in Contemporary Society	L				SB					

## GENERAL STUDIES

### General Studies Courses (continued)

		L	MA	CS	HU	SB	SQ	SG	C	G	H
	417 Family Violence					SB					
	418 Aging and the Life Course					SB					
	420 Sociology of Religion	L				SB					
	421 Education and Society					SB					
	422 Sociology of Complex Organizations	L				SB					
	423 Social Class and Stratification	L				SB					
	424 Women and Health	L				SB					
	427 Sociology of Health and Illness	L				SB					
	429 Sociology of Law					SB					
	433 Applied Demography					SB					
	446 Sociology of Crime					SB					
	448 Epidemics and Society					SB				G	
	451 Comparative Sociology					SB				G	
	455 Social Movements					SB					
	456 Political Sociology					SB				G	
	464 Sociology of Women	L				SB			C		
	474 African Americans in Modern Society					SB			C		
	483 History of Social Thought					SB					
	485 Sociology of Knowledge	L				SB					
	486 Contemporary Theory					SB					
SPA	201 Intermediate Spanish									G	
	202 Intermediate Spanish									G	
	203 Intermediate Spanish for Bilinguals									G	
	204 Intermediate Spanish for Bilinguals									G	
	207 Spanish for International Professions II									G	
	313 Spanish Conversation and Composition									G	
	314 Spanish Conversation and Composition									G	
	319 Business Correspondence and Communication									G	
	325 Introduction to Hispanic Literature				HU						
	412 Advanced Conversation and Composition									G	
	413 Advanced Spanish Grammar									G	
	420 Applied Spanish Linguistics	L									
	421 Spanish in the Southwest	L				SB			C		
	425 Spanish Literature				HU						
	426 Spanish Literature				HU						
	427 Spanish American Literature	L									
	428 Spanish American Literature	L								G	
	464 Mexican American Literature				HU						
	471 Civilization of the Spanish Southwest				HU						
	472 Spanish American Civilization				HU					G	H
	473 Spanish Civilization				HU	SB				G	
	485 Mexican American Short Story	L									
SPE	311 Orientation to Education of Exceptional Children					SB					
SPF	301 Culture and Schooling	L									
STE	208 Patterns in Nature (Cross-listed as PHS 208)						SQ				
STP	220 Conceptual Statistics			CS							
	226 Elements of Statistics			CS							
	326 Intermediate Probability			CS							
	420 Introductory Applied Statistics			CS							
	429 Experimental Statistics			CS							
SWU	271 Introduction to Social Work					SB					H
	301 Human Behavior in the Social Environment I	L				SB					
	321 Statistics for Social Workers			CS							
	340 Human Behavior in the Social Environment II					SB					
	374 Diversity and Oppression in a Social Work Context								C		
	493 Honors Thesis	L									
THA	201 Intermediate Thai I									G	

## General Studies Courses (continued)

		L	MA	CS	HU	SB	SQ	SG	C	G	H
	202 Intermediate Thai II									G	
THE	100 Introduction to Theatre				HU						
	220 Principles of Dramatic Analysis	L									
	300 Film: The Creative Process I				HU						
	301 Film: The Creative Process II				HU						
	320 History of the Theatre I				HU						H
	321 History of the Theatre II				HU						H
	403 Independent Film				HU						
	404 Foreign Films and Filmmakers									G	
	405 Film: Great Performers and Directors				HU						
	421 History of the English Theatre	L			HU						
THP	482 Theatre for Social Change								C		
TWC	200 Impact of Communications Technology on Society	L									
	301 General Principles of Multimedia Writing	L									
	400 Technical Communications	L									
	401 Principles of Technical Communication	L									
	411 Principles of Visual Communication	L									
	421 Principles of Writing with Technology	L									
	431 Principles of Technical Editing	L									
	446 Technical and Scientific Reports	L									
	447 Business Reports	L									
VTN	201 Intermediate Vietnamese I									G	
	202 Intermediate Vietnamese II									G	
WSH	413 Lesbian Culture: Images and Realities				HU				C		
	464 Voices and Visions				HU				C		
	470 Women and Popular Culture				HU				C		
WST	100 Women and Society					SB			C		
	300 Women in Contemporary Society					SB			C		
	313 Women and Sexuality					SB					
	373 Latina/Chicana Issues					SB			C		
	375 Women and Social Change					SB			C		
	377 Creation of Feminist Consciousness	L							C		
	378 Contemporary Feminist Theory	L							C		
	380 Gender, Race, and Class	L				SB			C		
	457 Gender, Culture, and Development	L				SB				G	
	460 Women and the Body					SB			C		
	477 Women and Violence					SB			C		
	498 PS: Theoretical Issues in Women's Studies	L									



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# Minors, Certificates, and Interdisciplinary Studies

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Interdisciplinary studies are available to students through an interdisciplinary degree, such as the Bachelor of Interdisciplinary Studies or an extensive choice of minors or certificates that may be taken in conjunction with other majors. Since interdisciplinary studies provide skills that support employment in a rapidly changing workplace, students are encouraged to consider these options. Consult the academic advisor in your area about the impact of enrolling in a minor or certificate program.

## MINORS

A minor is an approved, coherent concentration of academic study in a single discipline, involving substantially fewer hours of credit than a corresponding major. Most ASU colleges offer undergraduate minors in addition to majors; see the "ASU Minors" table, page 169.

Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1. the college department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met and 2. the college and, in certain colleges, the department of the student's major allows the official recognition of the minor.

A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken.

*Note:* Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but would not be limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major.

## CERTIFICATES

Students may pursue some certificate programs along with a major and other certificate programs independently. Graduate certificates and postbaccalaureate certificates are available to students who already hold a bachelor's degree. For more information, see the "ASU Undergraduate Certificates" table, page 111; "ASU Postbaccalaureate Certificates" table, page 112, and "ASU Graduate Certificates" table, page 112. Graduate certificates constitute graduate work; postbaccalaureate certificates are distinct from graduate certificates and are an extension of the undergraduate curriculum.

## CONCURRENT AND DUAL DEGREE

Graduate students have the opportunity to pursue more than one degree at the same time as part of an organized

program. For more information, see the "Dual Degrees" table, page 534, and the *Graduate Catalog*.

## INTERDISCIPLINARY STUDIES

**Bachelor of Interdisciplinary Studies.** For information about the Bachelor of Interdisciplinary Studies at ASU Main or ASU East, see "Bachelor of Interdisciplinary Studies," page 114, or "Interdisciplinary Studies - B.I.S.," page 641.

**Energy Studies.** An opportunity for instructional and research involvement in energy matters exists through the following three curricular paths:

1. general studies, which emphasize energy as an elective beyond the scope of a chosen major; for more information, call 480 965 4548;
2. specific studies in the College of Architecture and Environmental Design, for those pursuing the Master of Architecture degree and the Master of Science degree in Building Design; and
3. specific studies in the College of Engineering and Applied Sciences, usually for those seeking a degree in a branch of engineering.

**Environmental Studies.** The Center for Environmental Studies encourages and coordinates interdisciplinary environment-related activities in the natural and social sciences within the university. The center sponsors special courses, conferences, and workshops on environmental topics. Drawing from faculty and students throughout the university, the center participates in research and community programs relating to environmental problem areas. It does not formally offer courses or a degree program. For more information, see "Center for Environmental Studies," page 37.

**Film Studies.** The Film Studies Program exists not only to provide information and experience but also to serve as a means of creative expression for the student and as a useful subject and tool in teaching. The program is not designed to produce professional filmmakers, but it may provide practical preparation for students desiring further film study at other institutions.

Inquiries about this program should be directed to the Film Studies coordinator at 480 965 7644.

**Gerontology.** The Gerontology Program brings together faculty from several disciplines to teach courses related to adult development and aging, to collaborate on gerontological research, and to participate in projects of service to older adults.

## MINORS, CERTIFICATES, AND INTERDISCIPLINARY STUDIES

### ASU Minors

Minor	Administered By	Campus	Page
African American Studies	African American Studies Program	Main	329
American Indian Studies	American Indian Studies Program	Main	488
American Studies	Department of American Studies	West	690
Anthropology	Department of Anthropology	Main	329
Architectural Studies	School of Architecture	Main	123
Art History	School of Art	Main	280
Asian Languages (Chinese/Japanese)	Department of Languages and Literatures	Main	329
Astronomy	Department of Physics and Astronomy	Main	437
Biology	Department of Biology	Main	354
Business	College of Business	Main	156
Chemistry	Department of Chemistry and Biochemistry	Main	360
Chicana and Chicano Studies	Department of Chicana and Chicano Studies	Main	365
Communication	Hugh Downs School of Human Communication	Main	492
Communication Studies	Department of Communication Studies	West	692
Computational Mathematical Sciences	Department of Mathematics and Statistics	Main	417
Dance	Department of Dance	Main	298
Design Studies	School of Design	Main	139
Economics for Students Planning a Career in Law	Department of Economics	Main	367
English	Department of American Studies	West	692
English with a Concentration in Linguistics	Department of English	Main	368
English with a Concentration in Literature	Department of English	Main	368
Environmental Resources	Morrison School of Agribusiness and Resource Management	East	633
Ethnic Studies	College of Arts and Sciences	West	692
Exercise Science/Physical Education	Department of Exercise Science and Physical Education	Main	375
Family and Human Development	Department of Family and Human Development	Main	379
Film and Video Studies	Department of Interdisciplinary Arts and Performance	West	692
Food and Nutrition Management	Department of Nutrition	East	652
French	Department of Languages and Literatures	Main	402
General Economics	Department of Economics	Main	367
Geography	Department of Geography	Main	383
Geological Sciences	Department of Geological Sciences	Main	387
German	Department of Languages and Literatures	Main	402
Gerontology	Gerontology Program	Main	108
		West	692
History	Department of American Studies	West	692
	Department of History	Main	390
Human Nutrition	Department of Nutrition	East	653
Humanities	Interdisciplinary Humanities Program	Main	397
Interdisciplinary Arts and Performance	Department of Interdisciplinary Arts and Performance	West	692
Interior Design History	School of Design	Main	141
Italian	Department of Languages and Literatures	Main	402
Justice Studies	School of Justice Studies	Main	500
Landscape Studies	School of Planning and Landscape Architecture	Main	145
Life Sciences	Department of Life Sciences	West	692
Mass Communication	Walter Cronkite School of Journalism and Mass Communication	Main	497
		West	692
Mathematics	Department of Integrative Studies	West	692
	Department of Mathematics and Statistics	Main	420
Microbiology	Department of Microbiology	Main	427
Music	School of Music	Main	308

This minor is for nonbusiness majors only.

\* The program is in the process of transferring to the faculty of Business Administration in East College at ASU East.

## MINORS, CERTIFICATES, AND INTERDISCIPLINARY STUDIES

### ASU Minors (continued)

Minor	Administered By	Campus	Page
Philosophy	Department of Integrative Studies	West	692
	Department of Philosophy	Main	434
Physics	Department of Physics and Astronomy	Main	438
Plant Biology	Department of Plant Biology	Main	445
Political Science	Department of Political Science	Main	450
	Department of Social and Behavioral Sciences	West	692
Prelaw	College of Human Services	West	692
Psychology	Department of Psychology	Main	456
	Department of Social and Behavioral Sciences	West	692
Public Relations and Strategic Communications	Department of Communication Studies	West	692
Recreation Management	Department of Recreation Management and Tourism	Main	507
Religious Studies	College of Arts and Sciences	West	692
	Department of Religious Studies	Main	460
Russian	Department of Languages and Literatures	Main	402
Small Business <sup>1</sup>	College of Business	Main	181
Social and Behavioral Sciences	Department of Social and Behavioral Sciences	West	692
Sociocultural Anthropology	Department of Social and Behavioral Sciences	West	692
Sociology	Department of Sociology	Main	464
	Department of Social and Behavioral Sciences	West	692
Spanish	Department of American Studies	West	692
	Department of Languages and Literatures	Main	402
Special Events Management	Department of Recreation and Tourism Management	West	692
Speech and Hearing Science	Department of Speech and Hearing Science	Main	467
Statistics	Department of Mathematics and Statistics	Main	417
Theatre	Department of Theatre	Main	318
Tourism	Department of Recreation Management and Tourism	Main	507
Tourism Management	Department of Recreation and Tourism Management	West	692
Urban Planning	School of Planning and Landscape Architecture	Main	146
Wellness Foundations	Department of Exercise and Wellness	East	647
Women's Studies	Women's Studies Program	Main	471
		West	692

<sup>1</sup> This minor is for nonbusiness majors only.

<sup>2</sup> The program is in the process of transferring to the faculty of Business Administration in East College at ASU East.

A certificate at the postbaccalaureate level and an undergraduate minor are available in Gerontology. The certificate consists of 24 semester hours—12 hours of required course work and 12 hours of electives. The minor consists of 15 semester hours—six hours of required course work and 12 hours of electives. Courses related to aging are taught throughout the university by faculty who are active contributors to research, theory, and public policy and practice. In addition, gerontology provides students with opportunities to gain practical experience in working with elderly people. A practicum, held at the Veterans Administration Hospital, is available to students who have completed some gerontology course work. Gerontology also helps students find rewarding internships in community programs for older adults. For more information, see "Gerontology Certificate Program," page 707, and "Gerontology," page 518, or refer to the current *Student Handbook in Gerontology*.

**Islamic Studies.** The art, history, geography, and religion of the Islamic world are the subjects of several courses offered by departments in the Herberger College of Fine Arts and the College of Liberal Arts and Sciences. For information, call the Department of Religious Studies at 480 965 7145.

**Linguistics.** Linguistics concentrations are offered in master's degree programs in the Departments of Anthropology, English, and Languages and Literatures through the Graduate College. Numerous linguistics courses are offered in these and other departments. For information, call the University Committee on Linguistics at 480 965 3168.

### MILITARY OFFICER TRAINING

U.S. Air Force and U.S. Army ROTC units are active on the ASU campus. See "Department of Aerospace Studies," page 340, and "Department of Military Science," page 429, for more information.

**Defense Activity for Nontraditional Education Support (DANTES).** ASU is a participating institution with DANTES and is listed in the DANTES Directory of Inde



## MINORS, CERTIFICATES, AND INTERDISCIPLINARY STUDIES

pendent Study. DANTES is an executive agency of the Department of Defense that provides educational support for the voluntary education programs of all services. The primary missions of DANTES are 1) to provide nationally recognized examination and certification programs as part of the voluntary education programs of military services and 2) to facilitate the availability of high quality independent institutions for service men and women.

### WESTERN INTERSTATE COMMISSION FOR HIGHER EDUCATION (WICHE)

For Arizona residents who wish to attend professional schools of dentistry, occupational therapy, optometry, oste

opathy, and veterinary medicine in one of the other western states, Arizona has joined with other states to create the Western Interstate Commission for Higher Education. Through WICHE, qualified Arizona residents may attend schools in other western states at essentially the same expense to the students as to residents of the state in which the school is located. Students must have maintained at least average grades in their preprofessional work and must have been legal residents of Arizona for at least the last five years. Recipients are required to return to Arizona to practice or to repay a portion of the funds expended on their behalf.

For applications and more information, call 602 229 2500, or access the Web site at [www.wiche.edu](http://www.wiche.edu)

### ASU Undergraduate Certificates

Certificate	Administered By	Campus	Page
Advanced Business English Certificate	College of Extended Education	Extended	707
African American Studies Certificate	African American Studies Program	Main	343
American Indian Studies Certificate	American Indian Studies Program	Main	489
American Public Policy Certificate	Department of Political Science	Main	449
Asian Pacific American Studies Certificate	Asian Pacific American Program	Main	490
Asian Studies Certificate	Center for Asian Studies	Main	390
Business English Certificate*	College of Extended Education	Extended	707
Civic Education Certificate	Department of Political Science	Main	449
Classical Studies Certificate	Department of Languages and Literatures and Interdisciplinary Humanities Program	Main	336
East Asian Studies Certificate	Center for Asian Studies	Main	336
English as a Second Language Certificate*	College of Extended Education	Extended	707
Enriched College Certificate	College of Liberal Arts and Sciences	Main	336
Ethics Certificate	Department of Philosophy	Main	434
Ethnic Studies Certificate in	College of Arts and Sciences	West	692
Film and Video Studies Certificate in	Department of Interdisciplinary Arts and Performance	West	692
Hazardous Materials and Waste Management Certificate	Department of Information and Management Technology	East	671
Health Physics Certificate	Pre Health Professions Office	Main	337
History and Philosophy of Science Certificate	Department of Philosophy	Main	434
Human Performance Improvement Certificate*	College of Extended Education and the American Society of Training and Development	Extended	707
International Business Studies Certificate	College of Business	Main	174
International Studies Certificate	Department of Political Science	Main	449
Jewish Studies Certificate	Jewish Studies Committee	Main	338
Latin American Studies Certificate	Latin American Studies Center	Main	338
Maintenance Management Certificate*	College of Extended Education	Extended	707
Medieval and Renaissance Studies Certificate	Arizona Center for Medieval and Renaissance Studies	Main	338
Multimedia Writing and Technical Communication Certificate	East College	East	650
Nonprofit Management Certificate*	College of Extended Education and the Valley of the Sun United Way	Extended	708
Nonprofit/Youth Agency Administration: American Humanities Certificate	Department of Recreation Management and Tourism	Main	507
Professional Purchasing Certificate*	College of Extended Education	Extended	708
Public Administration and Public Management Certificate	School of Public Affairs	Main	504
Quality Analysis Certificate	College of Business	Main	161
Russian and East European Studies Certificate	Russian and East European Studies Consortium	Main	338

\* This certificate is not for academic credit.

## MINORS, CERTIFICATES, AND INTERDISCIPLINARY STUDIES

### ASU Undergraduate Certificates (continued)

Certificate	Administered By	Campus	Page
Scandinavian Studies Certificate	Department of Languages and Literatures	Main	339
Small Business and Entrepreneurship Certificate	College of Business	Main	181
Southeast Asian Studies Certificate	Program for Southeast Asian Studies	Main	339
Spanish Language Court Interpreter Certificate*	College of Extended Education	Extended	708
Symbolic Systems Certificate	Department of Philosophy	Main	339
Translation Certificate	Department of Languages and Literatures	Main	402
Women's Studies, Certificate in	Women's Studies Program	West	692
		Main	339
Writing, Certificate in	Department of American Studies	West	692
	Department of English	Main	369

\* This certificate is not for academic credit.

### ASU Postbaccalaureate Certificates

Certificate	Administered By	Campus	Page
Accountancy, Postbaccalaureate Certificate in*	Department of Accounting and Information Systems Management	West	692
Communication and Human Relations, Postbaccalaureate Certificate in*	Department of Communication Studies	West	692
Multimedia Writing and Technical Communication, Postbaccalaureate Certificate in	East College	East	650
Professional Accountancy, Postbaccalaureate Certificate in*	Department of Accounting and Information Systems Management	West	692

\* For more information, see the *ASU West Catalog*.

### ASU Graduate Certificates

Certificate	Administered By	Campus	Page
Geographic Information Science, Interdisciplinary Certificate in*	Graduate College	Main	—
Gerontology, Certificate in	College of Human Services	West	692
	Graduate College	Main	518
		Extended	707
Indian Law Certificate	College of Law	Main	—
Medieval Studies Certificate	Arizona Center for Medieval and Renaissance Studies (ACMRS)	Main	390
Museum Studies Certificate*	Department of Anthropology	Main	—
Nonprofit Leadership and Management Certificate	College of Public Programs	Main	488
Post-Bachelor's Artist Diploma*	School of Music	Main	—
Post-Master's Nurse Practitioner Certificate*	College of Nursing	Main	—
Renaissance Studies Certificate*	ACMRS	Main	—
Scholarly Publishing Certificate*	Department of History	Main	—
Statistics, Certificate in	Committee on Statistics and the Graduate College	Main	—
Translation Certificate	Department of Languages and Literatures	Main	402
Transportation Systems Certificate	Committee on Transportation Systems and the Graduate College	Main	519

\* For more information, see the *Graduate Catalog*.

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# Division of Undergraduate Academic Services

[www.asu.edu/duas](http://www.asu.edu/duas)

William S. Johnson, Ph.D., Executive Director

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The Division of Undergraduate Academic Services is a primary source of academic support for students, faculty, and staff. The division coordinates and offers academic programs and services designed to enhance the academic experience of ASU undergraduate students. The goals of the division are to play a major role in student retention, provide students the support necessary for successful completion of their first year and beyond, and offer students learning experiences that complement those provided by other academic units.

The division includes Education Support Services, Bachelor of Interdisciplinary Studies, Advising Services, and General Studies.

## EDUCATION SUPPORT SERVICES

This unit provides university-wide teaching and learning support to students and faculty in defined academic areas.

For more information, call 480-965-3097.

### Campus Match

Campus Match is a first semester fall program that gives freshmen the opportunity to attend classes in small learning communities according to their academic interest. Students choose a "cluster" of classes from a wide variety of offerings. Each cluster is limited to 25 students who enroll in and attend classes together. All students attend a weekly peer-led seminar that facilitates their social and academic adjustment to the university.

### Academic Success at the University Courses

The purpose of the UNI courses is to assist first year, transfer, and reentry students in making a successful transition to the university. Students learn university resources, policies and procedures, study skills, values and goal setting, human diversity, academic and career planning, and other skills.

## ACADEMIC SUCCESS AT THE UNIVERSITY (UNI)

### UNI 100 Academic Success at the University. (3)

*fall, spring, summer*

Orientation to campus resources, study skills, and other academic and social issues for college students. Introduces an understanding of human diversity, values, and perspectives as they relate to student success. Lecture, seminar, discussion. Prerequisite: freshman or sophomore more or transfer student.

### UNI 101 Student Success Seminar. (1)

*fall and summer*

Understanding human diversity, perspectives, and values as they relate to student success. Orientation to ASU resources, study skills, and academic and social issues for students. Seminar, discussion.

### UNI 494 Special Topics. (1-4)

*fall and spring*

Topics may include the following:

- Science Majors Internship, page 3

Prepresents science demonstrations to K-8 children at the request of the Center for Social State Science. This internship does not follow the format of the others.

**Omnibus Courses.** For an explanation of courses offered but not specified in this catalog, see Omnibus Course, page 56.

## Supplemental Instruction

Supplemental Instruction (SI) works to improve student performance and increase retention in historically difficult courses—those with high rates of "D," "E," and "W" grades. An SI leader attends class and offers voluntary study sessions to all students enrolled in the class. During the study sessions, students work together to learn course content and to enhance study skills.

## Summer Bridge

Summer Bridge is a program designed to assist first semester freshmen in making the transition from high school to university life. Summer Bridge is a five-week, residential program that provides a full academic curriculum in conjunction with a rich residence hall experience. The program assists participants in acclimating to campus, accessing student support programs and services, and enhancing classroom skills.

## Service Learning Program

The Service Learning Program uses community service to enhance education. The program is based on the concept of reciprocal learning. Service Learning sections of regular courses are linked to credit-bearing internships where students apply what they are learning in the community to the course work.

For example, some Service Learning students contribute one or more hours of homework tutoring, reading development, educational enrichment workshops, and learning readiness programs for children and youth for six hours a week during the semester. In turn, the tutors' community experiences and research form the basis of their classroom papers and research. Other Service Learning students lead elementary and middle school students in hands-on learning activities based on the content of the linked ASU courses.

Students may enroll in the internships with previous or current enrollment in one of the following linked courses or equivalent approved courses.

See appropriate course listings for more details.

Literacy and critical inquiry MA in thematic CS computer list  
quantitative applications HU history and defeat SB social and  
behavioral sciences SG natural science general core SQ statistical  
environmental C undergraduate the United States GG global  
History See General table page 83

## DIVISION OF UNDERGRADUATE ACADEMIC SERVICES

### Linked Courses

EED 420	Science Methods, Management and Assessment in the Elementary School	3
ENG 102	First Year Composition	3
ENG 217	Writing Reflective Essays <i>L</i>	3
ENG 312	English in Its Social Setting <i>L HU SB</i>	3
ENG 411	Literature for Adolescents <i>HU</i>	3
SOC 332	Urban Sociology <i>SB G</i>	3
SOC 341	Modern Social Problems <i>SB</i>	3

### Sciences and Additional Courses

GLG 111	Introduction to Geology I Physical <i>SQ G</i>	3
GLG 103	Introduction to Geology I Laboratory <i>SQ</i>	
GPH 111	Introduction to Physical Geography <i>SQ</i>	4
MTE 18	Theory of Elementary Mathematics	3
PHS 208	Patterns in Nature <i>SQ</i>	4
PLB 103	Concepts in Plant Biology <i>SQ</i>	4

### Service Learning Internships

ENG 484	Writing Internship	3
GLG 484	Geology Internship	3
GPH 484	Physical Geography Internship	3
MTE 484	Theory of Elementary Mathematics Internship	3
PHS 484	Physical Science Internship	3
PLB 498	PS. Plant Biology Internship	3
SOC 484	Internship	3
UNI 494	ST. Science is Magic Internship	3

### Writing Across the Curriculum (WAC)

**Curriculum Development and Support.** WAC Curriculum Development and Support is designed to assist in enhancing the quality of writing and critical thinking skills of university students.

WAC specialists consult with faculty on methods of developing and integrating writing assignments into course content. The specialists also provide customized in-class writing workshops designed to assist students in researching and responding to writing assignments.

**Writing Center.** The Writing Center provides students with one-on-one and group tutoring in writing skills. Rather than proofreading or editing students' writing, the Writing Center teaches students the skills they need to improve their writing processes and products.

### BACHELOR OF INTERDISCIPLINARY STUDIES

The Bachelor of Interdisciplinary Studies (BIS) is a university-wide program intended for the student who has academic interests that might not be satisfied with existing majors. Building on two academic concentrations and an interdisciplinary core, students in the BIS are expected to take an active role in creating their educational plan and defining their vocational goals. The BIS emphasizes written communication, versatility, and critical thinking skills desired in a changing workplace environment. Self-assessment and appraisal of opportunities to support academic and career goals are key elements in the core courses. For information about the BIS at ASU East, see "Interdisciplinary Studies (BIS)," page 641.

At ASU Main, students, other than entering freshmen, must attend an informational session conducted by an academic advisor before declaring the BIS major. For more information, visit Academic Advising Services in UASB 129 or call 480-965-4464.

The combination of areas of concentration gives students flexibility in creating a unique program to accomplish individualized academic goals. These combinations illustrate a range of examples:

1. anthropology and religious studies;
2. communication and small business;
3. communication and sociology;
4. dance and exercise science/physical education;
5. economics and Spanish;
6. environmental resources and geology;
7. environmental resources and political science;
8. justice studies and political science;
9. nonprofit youth agency development and theatre; and
10. psychology and women's studies

### Basic Requirements

The BIS requires 120 semester hours. The major is composed of a 12-semester-hour core and a minimum of 36 semester hours in two concentrations (18 hours each). Throughout the core sequence, the student assembles a portfolio including self-assessment of progress toward career goals and an evaluation of key educational and personal activities that may apply. All core courses must be completed with a grade of "C" or higher.

#### Core Courses

BIS 301	Foundations of Interdisciplinary Studies <i>L</i>	3
BIS 302	Interdisciplinary Principles	3
BIS 401	Applied Interdisciplinary Studies	3
BIS 402	Senior Seminar <i>L</i>	3

Total ..... 12

### Other Requirements

In addition to the basic requirements, students must complete all university requirements, including First Year Composition and General Studies. Early advising is recommended to facilitate selecting courses that may apply to both the General Studies requirements and the areas of concentration.

**Declaring the BIS Major.** Academic advising from Academic Advising Services is required before being approved to declare the BIS. In addition, the following requirements must be met:

1. 45 semester hours of college credit;
2. cumulative G.P.A. of 2.00; and
3. selection of two concentrations, with a minimum of two courses in each (minimum grade of "C") completed or one completed and one in progress, i.e., after the drop/add period in each area.

All incoming students and continuing students with a minimum GPA of 2.00 who do not meet the above requirements are placed in a pre-BIS major until the requirements have been met.

### Approved Concentrations

Each concentration requires 18 semester hours, with a grade of "C" or higher. Twelve of these hours must be in

upper-division courses. The concentrations—shown in the “B.I.S. Concentrations” table, page 116—are mostly based on existing minors or certificate programs and should represent academic interests that the student wishes to integrate into a meaningful program. Concentrations based on minors or certificates with fewer than 18 hours have additional semester hours required. Complete information on each concentration is available by visiting Academic Advising Services in UASB 129 or by accessing the B.I.S. Web site at [www.asu.edu/duas/bis](http://www.asu.edu/duas/bis).

A minimum of three semesters is required to complete the core sequence. BIS 301 is taken first and is the prerequisite to BIS 302. BIS 301 and 302 are prerequisites to 401 and 402, which may be taken concurrently; however, BIS 401 is a corequisite or prerequisite for 402. To enroll in BIS 401, a student must apply for the course during the semester before desired enrollment.

### BACHELOR OF INTERDISCIPLINARY STUDIES (BIS)

#### **BIS 301 Foundations of Interdisciplinary Studies. (3)**

*fall and spring*

Introduces concepts and methods of interdisciplinary study by critically examining anticipated 21st-century workplace and civic trends. Lecture, seminar, discussion. Prerequisites: B.I.S. major; 2.00 GPA. *General Studies: L*

#### **BIS 302 Interdisciplinary Principles. (3)**

*fall and spring*

Explores interdisciplinarity and integration as applied to various approaches of human inquiry. Lecture, seminar, discussion. Prerequisite: BIS 301.

#### **BIS 401 Applied Interdisciplinary Studies. (3)**

*fall and spring*

Applies interdisciplinary problem-solving skills in internships, service-learning, or research; may involve individual or group projects combining both concentrations. Prerequisites: BIS 301, 302; prior application.

#### **BIS 402 Senior Seminar. (3)**

*fall and spring*

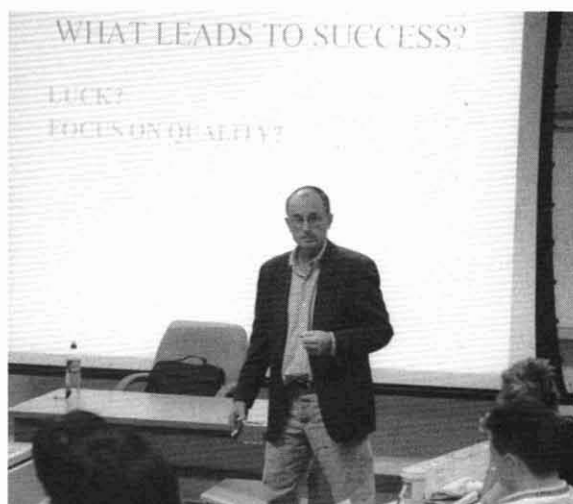
Capstone course helps integrate classroom and experiential learning. Students choose among course topics that address their interests. Lecture, seminar, discussion. Prerequisites: BIS 301, 302. Pre- or corequisite: BIS 401. *General Studies: L*

**Omnibus Courses.** For an explanation of courses offered but not specifically listed in this catalog, see “Omnibus Courses,” page 56.

### ASU EXTENDED CAMPUS

The College of Extended Education was created in 1990 to extend the resources of ASU throughout Maricopa County, the state, and the region. The College of Extended Education is a university-wide college that oversees the ASU Extended Campus and forms partnerships with other ASU colleges, and the Division of Undergraduate Academic Services to meet the instructional and informational needs of a diverse community.

The ASU Extended Campus goes beyond the boundaries of the university’s three physical campuses to provide access to quality academic credit and degree programs for working adults through flexible schedules; a vast network of off-campus sites; classes scheduled days, evenings, and weekends; and innovative delivery technologies including television, the Internet, and Independent Learning. The ASU Extended Campus also offers a variety of professional continuing education and community outreach programs.



William Boyes, professor of Economics, leads a class discussion.

Tim Trumble photo

For more information, see “ASU Extended Campus,” page 703, or access the Web site at [www.asu.edu/xed](http://www.asu.edu/xed).

### ADVISING SERVICES

#### **Academic Advising Services**

Academic Advising Services is a central advising, referral, and information facility whose staff is available to assist students in their academic careers at ASU. Emphasis is placed on advising services to undeclared first-time and transfer students, and students in transition, such as those changing majors and those without majors. In addition to guidance in the exploration or selection of a major, Academic Advising Services provides general academic information and referrals to all areas of student academic support.

Academic Advising Services is located in UASB 129 and can be reached by phone at 480/965-4464.

#### **Degree Audit Reporting System (DARS)**

DARS is an online tool that provides students with consistent, accurate information regarding their academic requirements. Through this system, a degree audit is produced that matches a student’s completed courses against degree program requirements in a matter of seconds. The audit allows students to assess their progress toward their degree or to determine how their earned credits would apply if they were to pursue another degree program. Audits may be obtained from the student’s academic advisor.

### GENERAL STUDIES

All students enrolled in a baccalaureate degree program must satisfy the General Studies requirement. For more information, see “University Graduation Requirements,” page 79, and “General Studies,” page 83.

**L** literacy and critical inquiry • **MA** mathematics • **CS** computer/statistics/quantitative applications • **HU** humanities and fine arts • **SB** social and behavioral sciences • **SG** natural science—general core courses • **SQ** natural science—quantitative • **C** cultural diversity in the United States • **G** global • **H** historical See “General Studies,” page 83

# DIVISION OF UNDERGRADUATE ACADEMIC SERVICES

## B.I.S. Concentrations

Concentration	College	Campus	Page
African American studies	College of Liberal Arts and Sciences	Main	342
American Indian studies	College of Public Programs	Main	489
Anthropology	College of Liberal Arts and Sciences	Main	347
Art history	Herberger College of Fine Arts	Main	279
Asian Pacific American studies	College of Public Programs	Main	490
Asian studies	College of Liberal Arts and Sciences	Main	336
Astronomy	College of Liberal Arts and Sciences	Main	437
Biology <sup>1</sup>	College of Liberal Arts and Sciences	Main	354
Business	College of Business	Main	181
Chemistry	College of Liberal Arts and Sciences	Main	360
Chicana and Chicano studies	College of Liberal Arts and Sciences	Main	365
Chinese	College of Liberal Arts and Sciences	Main	403
Classical studies—Greek	College of Liberal Arts and Sciences	Main	336
Classical studies—Latin	College of Liberal Arts and Sciences	Main	336
Communication	College of Public Programs	Main	491
Computational mathematical sciences	College of Liberal Arts and Sciences	Main	419
Dance	Herberger College of Fine Arts	Main	296
Design studies	College of Architecture and Environmental Design	Main	139
East Asian studies	College of Liberal Arts and Sciences	Main	460
Economics	College of Liberal Arts and Sciences	Main	367
Economics for students planning a career in law	College of Liberal Arts and Sciences	Main	367
Education	College of Education	Main	194
English—creative writing <sup>2</sup>	College of Liberal Arts and Sciences	Main	368
English with a concentration in linguistics <sup>2</sup>	College of Liberal Arts and Sciences	Main	368
English with a concentration in literature <sup>2</sup>	College of Liberal Arts and Sciences	Main	368
English—writing certificate <sup>2</sup>	College of Liberal Arts and Sciences	Main	369
Environmental geography <sup>3</sup>	College of Liberal Arts and Sciences	Main	382
Environmental resources	Morrison School of Agribusiness and Resource Management	East	632
Environmental science <sup>4</sup>	—	East	633
Ethics	College of Liberal Arts and Sciences	Main	337
Exercise science/physical education	College of Liberal Arts and Sciences	Main	375
Family studies/child development	College of Liberal Arts and Sciences	Main	379
Food and nutrition management	East College	East	651
French	College of Liberal Arts and Sciences	Main	402
Geographical information science <sup>3</sup>	College of Liberal Arts and Sciences	Main	381
Geography <sup>3</sup>	College of Liberal Arts and Sciences	Main	381
Geography for business <sup>3</sup>	College of Liberal Arts and Sciences	Main	381
Geological sciences	College of Liberal Arts and Sciences	Main	387
German	College of Liberal Arts and Sciences	Main	402
Gerontology	Graduate College	Main	518
Global family <sup>4</sup>	—	Main	—
Hazardous materials and waste management	College of Technology and Applied Sciences	East	671
History	College of Liberal Arts and Sciences	Main	390
History and philosophy of science	College of Liberal Arts and Sciences	Main	434
Human nutrition	East College	East	652
Humanities	College of Liberal Arts and Sciences	Main	397
Interior design history	College of Architecture and Environmental Design	Main	141
International business studies <sup>4</sup>	College of Business	Main	161
International geography <sup>3</sup>	College of Liberal Arts and Sciences	Main	381

<sup>1</sup> Students may not use more than one concentration in the life sciences: biology, microbiology, and plant biology.

<sup>2</sup> Students may not use more than one English concentration.

<sup>3</sup> Students may not use more than one geography concentration.

<sup>4</sup> The program may award a certificate upon completion.

# DIVISION OF UNDERGRADUATE ACADEMIC SERVICES

## B.I.S. Concentrations (continued)

Concentration	College	Campus	Page
Italian	College of Liberal Arts and Sciences	Main	402
Japanese	College of Liberal Arts and Sciences	Main	402
Jewish studies	College of Liberal Arts and Sciences	Main	338
Justice studies	College of Public Programs	Main	500
Landscape studies	College of Architecture and Environmental Design	Main	145
Latin American studies	College of Liberal Arts and Sciences	Main	367
Mass communication	College of Public Programs	Main	497
Mathematics	College of Liberal Arts and Sciences	Main	420
Medieval and Renaissance studies	College of Liberal Arts and Sciences	Main	390
Microbiology <sup>1</sup>	College of Liberal Arts and Sciences	Main	427
Multimedia writing and technical communication	East College	East	650
Music	Herberger College of Fine Arts	Main	301
Nonprofit/youth agency administration	College of Public Programs	Main	507
Organizational studies	—	—	—
Philosophy	College of Liberal Arts and Sciences	Main	434
Physics	College of Liberal Arts and Sciences	Main	438
Plant biology <sup>1</sup>	College of Liberal Arts and Sciences	Main	445
Plant biology—environmental science and ecology <sup>1</sup>	College of Liberal Arts and Sciences	Main	443
Plant biology—molecular biosciences/biotechnology <sup>1</sup>	College of Liberal Arts and Sciences	Main	432
Plant biology—urban horticulture <sup>1</sup>	College of Liberal Arts and Sciences	Main	444
Political science	College of Liberal Arts and Sciences	Main	448
Psychology	College of Liberal Arts and Sciences	Main	456
Public administration	College of Public Programs	Main	504
Quality analysis	College of Business	Main	161
Recreation management	College of Public Programs	Main	506
Religious studies	College of Liberal Arts and Sciences	Main	459
Russian	College of Liberal Arts and Sciences	Main	402
Russian and East European studies	College of Liberal Arts and Sciences	Main	338
Scandinavian studies	College of Liberal Arts and Sciences	Main	339
Sociology	College of Liberal Arts and Sciences	Main	464
Southeast Asian studies—area studies option	College of Liberal Arts and Sciences	Main	339
Southeast Asian studies—language option	College of Liberal Arts and Sciences	Main	339
Spanish	College of Liberal Arts and Sciences	Main	402
Spanish for native speakers	College of Liberal Arts and Sciences	Main	402
Statistics	College of Liberal Arts and Sciences	Main	420
Symbolic systems	College of Liberal Arts and Sciences	Main	434
Theatre	Herberger College of Fine Arts	Main	317
Tourism	College of Public Programs	Main	506
Translation (Spanish/English)	College of Liberal Arts and Sciences	Main	402
Urban planning	College of Architecture and Environmental Design	Main	146
Wellness foundations	East College	East	646
Women's studies	College of Liberal Arts and Sciences	Main	471

<sup>1</sup> Students may not use more than one concentration in the life sciences: biology, microbiology, and plant biology.

<sup>2</sup> Students may not use more than one English concentration.

<sup>3</sup> Students may not use more than one geography concentration.

<sup>4</sup> The program may award a certificate upon completion.



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# The Barrett Honors College

www.asu.edu honors

Ted Humphrey, Ph.D., Dean

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## MISSION

The Barrett Honors College is a community of learners dedicated to superior undergraduate education based on the pursuit of excellence, respect for the individual, commitment to integrity, and service to society.

The college offers talented motivated students educational opportunities designed to enrich and further their personal academic and career goals. It is a portal through which academically talented students gain unique access to the university's human and physical resources. Transdisciplinary in nature, the college develops curricular and other learning opportunities to meet general and disciplinary undergraduate educational objectives. The college supports undergraduate research, encourages study abroad, guides students to relevant internships, mentors applicants for fellowships and scholarships, and assists students with application to graduate school.

The Barrett Honors College serves students seeking degrees at ASU Main, in Tempe; ASU West, in northwest Phoenix, and ASU East (Williams Campus) in southeast Mesa. Students across the university can take advantage of the university's full resources with the assurance of consistently distinguished teaching and research and with commensurately rigorous expectations for performance.

Students from all disciplinary colleges and academic majors can enroll in the Barrett Honors College.

## CURRICULUM

Students seeking to graduate from the Barrett Honors College must also graduate from a disciplinary college. The ASU honors curriculum normally allows students to finish all requirements within the 120 semester hours of credit usually required for graduation.

## SPECIAL PROGRAMS

### Office of National Scholarship Advisement

The Office of National Scholarship Advisement assists honors and other high achieving students by identifying nationally competitive programs appropriate to each person's intellectual and career goals, nurturing these prospective applicants, and advancing their candidacy. This office, administered by the college, serves the entire ASU community. ASU students regularly earn distinction in the most rigorous and prestigious scholarship competitions. Many pursue enhanced degree programs and research projects under the auspices of Goldwater or Truman Scholarships. Other students undertake postgraduate study in the United States and abroad as Rhodes, Marshall, Fulbright, Udall, National Science Foundation, or Mellon Scholars. Many others have been recognized by a range of postgraduate awards, fellowships, and assistantships. *This office does not administer any need or merit based student financial assistance.* For more information, call 480 965 5894.

### The Undergraduate Research Office

The Undergraduate Research Office maintains a database of research opportunities available throughout the university. This office is administered by the Barrett Honors College and serves the entire university.

### Study Abroad

Students participating in the Barrett Honors College have exclusive access to four study abroad programs—one in Britain; one in Paris; one that travels to Athens, Rome, and Tunis, and one to Latin America—and to the ASU International Programs office, which offers more flexible course registration and transfer arrangements. These plans allow students to earn honors credit while overseas.

### Internships Mentorships

Students in the Barrett Honors College may participate in special internship opportunities or mentoring by leaders in government, industry, and the private sector throughout metropolitan Phoenix. For more information, call 480 965 2354.

### Events Programming

Students enrolled in the Barrett Honors College participate in a range of cultural enrichment activities and are offered discounted tickets to selected performing arts events throughout Arizona, invited to lunches and dinners with the dean, and given special access to important contributors to contemporary thought who visit ASU. Each year the college hosts the university's premier scholar in residence program, the Centennial Lecture. Past guests include novelist Carlos Fuentes, paleontologist Steven Jay Gould, psychiatrist Rob



ert Coles, microbiologist Lynn Margulis, essayist Susan Sontag, and paleoanthropologist Meave Leakey.

The college is home to the John J. Rhodes Chair, designed to bring to the college persons who have significantly contributed to civic life and distinguished themselves as public service leaders. Students have unique opportunities to engage intellectually with these outstanding visiting lecturers. In 1998, the college was honored to have Dr. Henry A. Kissinger serve as the inaugural chair, and Pulitzer Prize-winning science writer Jonathan Weiner served in 2001.

### ADDITIONAL BENEFITS

The Barrett Honors College and all its facilities and services are fully available to every student, regardless of where he or she lives. The Honors Halls of Residence offer students an integrated living/learning environment; faculty and academic advisors serve the students there. Classrooms, recreational and study lounges, and a computing lab compose the principal facilities of the college.

Students enrolled in the Barrett Honors College receive priority at preregistration and have extended checkout privileges in the campus libraries. Honors courses in disciplinary departments are typically limited to 25 students. Honors courses with the prefix HON are usually limited to 18.

Students can receive transcript recognition for lower division honors studies. Students who meet all upper division requirements of both their disciplinary college and the Barrett Honors College receive transcript recognition of that accomplishment, as well as special acknowledgment during the graduation ceremonies and collegiate honors convocations.

Participants in the honors college have diverse interests and strong records of success. Many go on to the nation's finest graduate and professional programs, including Chicago, Cornell, Harvard, Michigan, MIT, Northwestern, Stanford, UC Berkeley, Virginia, Wisconsin, and Yale. Many students have published portions of their honors theses and have presented their work at national and regional meetings of scientific and honors societies.

### ADMISSION

Students who have demonstrated high levels of academic achievement at the high school or university level are invited to apply for admission to the Barrett Honors College. All candidates for admission must file a separate application to the college.

Applicants are initially evaluated on the basis of their high school GPA (Arizona Board of Regents GPA based on 16 competency courses), high school class rank, and performance on the SAT or ACT, or a student may possess other talents that contribute to academic leadership and community service. Continuing ASU or transfer students are evaluated on their college GPA.

All students who believe they can better succeed at the university by participating in the Barrett Honors College are encouraged to apply. Application forms and additional information about the college and its activities are available by calling 480-965-2359.

### RETENTION

Honors students must maintain high standards of academic performance and show progress toward completion of graduation requirements in their disciplinary majors and the Barrett Honors College. Students must complete an average of one honors course each semester. The associate dean of the college must approve any deviation from this standard. Good standing in the college requires students to maintain the following cumulative ASU GPAs (4.00–A):

1. fewer than 45 semester hours, 3.25;
2. between 45 and 80 semester hours, 3.33; and
3. above 80 semester hours, 3.40.

A student with a lower cumulative ASU GPA is placed on probation and is withdrawn from the college if he or she does not make reasonable progress in raising the cumulative GPA during the following semester. Students who fail to complete at least one honors course in two semesters may be placed on inactive status. A student on inactive status within the college is not eligible for honors housing, extended library privileges, early registration, or honors internship placement. Reinstatement to active status requires a formal application and appointment with an honors advisor.

### COURSE REQUIREMENTS

Only courses in which a student receives at least a grade of "C" may be used to meet the Barrett Honors College requirements.

Freshmen and students entering the college with fewer than 45 semester hours of course work must take HON 171 and 172 the Human Event. This cross-disciplinary seminar acquaints them with ideas that form the foundation of a university education and emphasizes critical thinking, discussion, and writing. Barrett Honors College students complete HON 171 and 172 during their first two semesters.

Students entering the college after completing 45 semester hours must take a 300-level honors course; junior-level seminar courses introduce them to critical thinking, discussion, and writing in a topical area chosen by the instructor. It is expected that all students complete this course no later than the first or second semester after transferring.

Departmental courses carrying footnote number 19 in the *Schedule of Classes* are limited to honors students and others who receive special permission from the instructor to enroll. Enrollment in these courses is limited. Compared to their non-honors equivalents, these courses are designed to offer a richer, more complex intellectual experience appropriate to the discipline and the level of the course for all students enrolled. Other disciplinary honors courses group honors students in small cohorts to work on research projects of common interest.

Departmental courses carrying footnote number 18 in the *Schedule of Classes* allow honors students to contract with the instructor of designated non-honors courses to earn

Liberal Arts and Sciences MA mathematics CS computer statistics quantitative applications HU humanities and fine arts SB social and behavioral sciences SG natural science general core courses SQ natural science quantitative C critical diversity the United States Global History See General Studies page 83

## THE BARRETT HONORS COLLEGE

honors credit by pursuing enrichment activities, which may include supplemental sessions with the instructor. Footnote 18 contracts must be filed during the first four weeks of class and completed during the semester in which the course is offered. Each contract form offers guidelines to aid students and faculty in developing appropriate contracts.

Course numbers listed in the *Schedule of Classes* as 298, 492 Honors Directed Study, 493 Honors Thesis, 497 Honors Colloquium, and all classes with the HON prefix are reserved for students in the Barrett Honors College and always carry footnote 19. Students may receive credit for more than one of each of these courses in a given department.

Departmental courses with the number 493 are reserved for honors students completing their honors theses. A student may enroll for these courses only with the approval of the sponsoring academic department and of the faculty member who serves as the student's thesis director. Course numbers listed in the *Schedule of Classes* as 493 fulfill the student's literacy and critical inquiry (L) General Studies requirement. Students in the Honors College may also enroll in graduate-level courses that automatically earn honors credit.

All courses a student takes for honors credit may be used toward graduation, even if the student does not graduate from the Barrett Honors College.

### HONORS TRANSCRIPT RECOGNITION

All courses used to fulfill lower-division or upper-division/graduation requirements for the Barrett Honors College

must carry earned letter grades of at least "C." A "Y" grade does not meet college requirements.

### Lower Division

To receive transcript recognition for lower-division honors work, students must complete 18 semester hours of honors course work within 60 earned semester hours with a cumulative ASU GPA greater than or equal to 3.40 (4.00 = A).

Courses *must* include HON 171 and 172 the Human Event. Courses that earn automatic honors credit, although not carrying a footnote number 19 in the *Schedule of Classes*, include ENG 105 (any section) and CHM 117 and 118 (any section).

Students may apply upper-division honors course work toward lower-division requirements; however, those classes may not also be used to meet the Barrett Honors College upper-division/graduation requirements.

### Intent to Graduate

Students must complete and file with the college an Intent to Graduate form no later than the semester in which they complete 75 earned semester hours (including AP, IB, CLEP, and dual enrollment credits). This form is available online at the college's Web site, [www.asu.edu/honors](http://www.asu.edu/honors), and is located in the section devoted to forms.

The Intent to Graduate form includes sections in which students indicate

1. their intended major(s), minor(s), and certificate program(s);
2. the courses they intend to use to satisfy the requirements for "Lower Division with Honors"; and



President Coor sits in on a class with students.

www.asu.edu/honors

- the courses they intend to use to satisfy the requirements for graduation through the Barrett Honors College.

Normally, only students who complete the requirements for "Lower Division with Honors" or their equivalent at the institution(s) from which they transfer are allowed to pursue completion of the requirements for graduation through the Barrett Honors College.

Normally, students admitted to ASU as first time, first year students are required to complete HON 171 and 172, even if they seek admission to the college at a later date.

### Upper Division Graduation

To graduate through the Barrett Honors College, students must

- complete HON 171 and 172 The Human Event for continuing ASU or transfer students with fewer than 45 semester hours or one of the 300 level honors seminar courses for transfer students with 45 or more semester hours.
- unless otherwise provided for by the Barrett Honors College and the student's disciplinary college, complete 18 additional semester hours of upper division honors course work for an earned letter grade, which must include three to six semester hours of Honors Thesis and six semester hours outside the academic major (these may include graduate courses);
- complete ASU graduation requirements in an academic major; and
- earn a cumulative ASU GPA greater than or equal to 3.40 (4.00 A).

## The Barrett Honors College

[www.asu.edu/honors](http://www.asu.edu/honors)

480 965-2359

IRISH A121

Ted Humphrey, Dean

Professor: Humphrey

Senior Lecturers: Dalton Facene, Stanford

Lecturers: Beggs Bruhn Burke, Hend JM Lynch, J Lynch McManus Pckus Susser

### HONORS (HON)

#### HON 171 The Human Event. (3)

*fall and spring*

Landmarks in the social and intellectual development of the human race with emphasis on Western civilization. Enrollment restricted to members of the Barrett Honors College. Co-suit the college for applicability to disciplinary college distribution requirements.  
*General Studies L/HU H*

#### HON 172 The Human Event. (3)

*fall and spring*

Continuation of HON 171 with emphasis on the Renaissance through the modern period. Prerequisite: HON 171.  
*General Studies L/HU H*

#### HON 371 Freedom and Authority. (3)

*fall and spring*

Historical overview of concept of liberty responsibility, and power in Western societies emphasizing 18th to 20th century developments.  
*Seminar*  
*General Studies L/HU*

#### HON 372 French Cultural Influences. (3)

*summer session 1*

Explores textual and cultural artifacts formatively of French culture as a series of contact and conflicts with other peoples and few. Seminar.  
*General Studies L/HU G*

#### HON 373 Heroes, Heroines, and Villains. (3)

*fall and spring*

Examines concepts of heroic and villainous characteristics as expressed in the literature and visual arts of various cultures throughout history. Seminar.  
*General Studies L/HU*

#### HON 374 Black and White Atlantic. (3)

*fall and spring*

Examines development 18th to 20th century and cultural manifestations of Black/White race relations within the U.S. and between the U.S. and other nations. Seminar.  
*General Studies HU G*

#### HON 375 Science and the Modern Self. (3)

*fall and spring*

Concentrates on texts of the 19th and 20th centuries exploring how scientific discourse determines our notion of self. Seminar. Lecture/discussion.  
*General Studies L/HU*

#### HON 376 Law, Literature, and Life. (3)

*fall and spring*

Methodological approach to the subject of law examining it through the historical and philosophical. Seminar.  
*General Studies HU*

#### HON 377 Nature 'n Context. (3)

*fall*

Explores perspectives on the nature of nature, the history of ecology and the rise of environmentalism. Seminar. Cross-listed as HPS 377.  
Credit is allowed for only HON 377 or HPS 377.  
*General Studies HU*

#### HON 394 Special Topics. (3)

*fall, spring, summer*

#### HON 484 Internship. (1-6)

*selected semesters*

#### HON 485 Biosphere 2 Study Opportunity. (1-18)

*fall and spring*

For students participating in the ASU-sponsored program at Biosphere 2.

#### HON 493 Honors Thesis. (1-6)

*selected semesters*

*General Studies*

#### HON 497 Honors Colloquium. (1-6)

*selected semesters*

#### HON 498 Pro Seminar (1-7)

*selected semesters*

**Omnibus Courses.** For an explanation of courses offered but not specifically listed in this catalog see Omnibus Courses page 56.

Literary and critical inquiry **MA** mathematics **CS** computer statistics quantitative applications **HU** humanities and fine arts **SB** social and behavioral sciences **SG** natural and environmental sciences **SQ** natural and quantitative **C** cultural diversity in the United States **G** global history **GE** General Studies **AE** 83

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# College of Architecture and Environmental Design

[www.asu.edu/caed](http://www.asu.edu/caed)

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<b>School of Design</b> .....	<b>135</b>
<b>School of Planning and Landscape Architecture</b> .....	<b>145</b>

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## PURPOSE

The practice of architecture and environmental design is the culturally responsible shaping of our environment from the scale of the cities in which we live to the buildings and interiors we inhabit and the artifacts and products we use. What we design must be durable, useful, beautiful, appropriate to its context, and not a waste of resources, energy, or materials. Designing our environment is an art, a technology, and a social science that has a history as long as human culture. The goals of the faculty include offering students an education that becomes the basis for life-long growth and improvement as professionals, advancing the discipline in both theory and practice, and improving the quality of the environment by making the expertise and knowledge of the faculty available to other professionals and to the public.

## ORGANIZATION

**Academic Organization.** The college is composed of three academic units:

- School of Architecture
- School of Design
- School of Planning and Landscape Architecture

Administration of the college is the responsibility of the dean, who in turn is responsible to the president of the university through the senior vice president and provost.

**College Facilities.** All of the College of Architecture and Environmental Design's programs are housed in a single complex. Facilities include the Architecture and Environmental Design Library; computer laboratories; design studios; the Gallery of Design; lecture and seminar rooms; the Media Center; offices for faculty, the administration, and student organizations; the shop; the slide collection; Materials Resource Center, and technology laboratories. The bridge between the original building and the expansion places the college's review and display space at the heart of the complex.

**Architecture and Environmental Design Library.** As a branch of the University Libraries, the Architecture and

Environmental Design Library provides easy access to more than 30,000 books, periodicals, and reference materials for students, faculty, and the professional community. The library's special collections include archives of Blaine Drake, Victor Olgyay, Calvin Straub, Will Bruder, and others, as well as research materials on Paolo Soleri and Frank Lloyd Wright. The Alternative Energy Collection and the Materials Resource Center provide additional sources for research.

**Gallery of Design.** The Gallery of Design is one of eight university galleries and museums. It provides space for traveling exhibits and exhibitions of student and faculty work.

**Special Facilities.** College programs are supplemented by several special laboratories, including the computer-aided design and graphics lab; the high bay research lab; the lighting lab; the solar research lab; the solar rooftop work area; an extensive shop equipped to handle wood, plastic, and metal; the Herberger Center for Design Excellence; and the Joint Urban Design Program, which also has a studio at the ASU Downtown Center. The Media Center includes traditional graphics and audiovisual equipment as well as portable gear. The slide collection, with more than 100,000 images, is available for instructional use, and the college maintains an array of materials testing equipment.

## ADMISSION

**Lower-Division Programs.** A new or transfer student who has been admitted to the university and has selected a college major is admitted to the lower division program of his or her choice. A separate application procedure is required for entry to upper division programs and graduate programs. Acceptance into lower division programs does not guarantee acceptance to upper division programs. Acceptance into lower division programs requires a TOEFL score of 500 or higher for international students whose native language is not English.

**Transfer Credits.** While the university accepts credits transferred from other accredited institutions, transfer credits are not applied to specific degree programs until reviewed and accepted by the appropriate academic units. Transfer course work must be equivalent in both content and level of offering. In addition, a review of samples of work in portfolio format from previous studies is required. Students who change majors to transfer into the college or one of its program areas must have a minimum cumulative GPA of 2.50.

## COLLEGE OF ARCHITECTURE AND ENVIRONMENTAL DESIGN

### College of Architecture and Environmental Design Baccalaureate Degrees and Majors

Major	Degree	Concentration	Administered By
Architectural Studies	B.S.D.		School of Architecture
Design Science	B.S.D.		School of Design
Graphic Design	B.S.D.		School of Design
Housing and Urban Development	B.S.D.		School of Planning and Landscape Architecture
Industrial Design	B.S.D.		School of Design
Interior Design <sup>2</sup>	B.S.D.		School of Design
Landscape Architecture	B.S.L.A.		School of Planning and Landscape Architecture
Urban Planning	B.S.P.	—	School of Planning and Landscape Architecture

Applications for this program are not being accepted at this time.  
This major requires more than 120 semester hours to complete.

**Upper-Division Programs.** Admission to upper division programs is competitive. Consult requirements of each major for details. Students applying to more than one program must make a separate application to each and must submit separate portfolios. Students not enrolled at ASU when they apply to upper division programs must also make a separate application to the university. Students not admitted to the upper division are not dismissed from the university and may reapply or transfer to other programs. Students who plan to reapply should contact a college academic advisor. Transfers into upper division programs are considered only if vacancies occur, and such transfers are limited to students with equivalent course work who are competitive with continuing students. Acceptance into some upper division programs requires a TOEFL score of 500 or higher for international students whose native language is not English.

### ADVISING

While the college and its academic units provide academic advising, it is ultimately the responsibility of each student to fulfill academic and program requirements. Advising and record keeping for lower division programs are the responsibility of a college academic advisor located in ARCH 141. Records for upper division program students are kept in the appropriate academic units, and advising is by the faculty and the head of the academic unit. General career advising is available from all faculty members. Administration of program requirements is the responsibility of the head of the academic unit and the dean.

**Appeals Procedures.** Academic appeals and requests for variances are typically made first to the student's advisor and then, if necessary, to the head of the appropriate academic unit, the Governance and Grievance Committee, and, finally, the dean. A student who feels unjustly treated in academic or other matters relating to his or her career as a student may contact a college academic advisor or may take the grievance to the college ombudsperson.

### DEGREES

**Undergraduate.** The college offers curricula for four or five year degree programs: the Bachelor of Science in Design (B.S.D. degree in Architectural Studies, Graphic Design, Housing and Urban Development, Industrial Design, and Interior Design); the Bachelor of Science in

Landscape Architecture (B.S.L.A. degree); and the Bachelor of Science in Planning (B.S.P. degree in Urban Planning). Applications for the B.S.D. degree in Design Science are not being accepted at this time. For more information, see the "College of Architecture and Environmental Design Baccalaureate Degrees and Majors" table, on this page.

Each undergraduate program is divided into lower division and upper division programs. Completion of a lower division program does not guarantee advancement to an upper division program.

### MINORS

The faculty in the School of Architecture offer a minor in Architectural Studies (see "Architectural Studies Minor" page 130). The faculty in the School of Planning and Landscape Architecture offer two minors: Landscape Studies and Urban Planning. See "Minors" page 145, for more information. The faculty in the School of Design offer minors in Design Studies and Interior Design History, see "Minor" pages 139 and 141, respectively.

### GRADUATE PROGRAMS

The faculty in the College of Architecture and Environmental Design offer the National Architectural Accrediting Board accredited Master of Architecture (M.Arch. professional degree); Planning Accreditation Board accredited Master of Environmental Planning (M.E.P.) professional degree; M.S. degree in Building Design; Master of Science in Design (M.S.D.) degree; and Ph.D. degree in Environmental Design and Planning. For more information, see the "College of Architecture and Environmental Design Graduate Degrees and Majors" table, page 124, and the *Graduate Catalog*.

### ASU EXTENDED CAMPUS

The College of Extended Education was created in 1990 to extend the resources of ASU throughout Maricopa County, the state, and the region. The College of Extended Education is a university-wide college that oversees the ASU Extended Campus and forms partnerships with other

Literacy and Literacy MA mathematics CS computer statistics quantitative applications HU humanities and fine arts SB social and behavioral science SG natural science general education SQ natural science quantitative Curriculum diversity international State General Education page 83

## COLLEGE OF ARCHITECTURE AND ENVIRONMENTAL DESIGN

### College of Architecture and Environmental Design Graduate Degrees and Majors

Major	Degree	Concentration	Administered By
Architecture	M.Arch.	—	School of Architecture
Building Design	M.S.	Design knowledge and computing, energy performance and climate-responsive architecture, facilities development and management	School of Architecture
Design	M.S.D.	Graphic design, industrial design, interior design	School of Design
Environmental Design and Planning*	Ph.D.	Design: history, theory, and criticism; planning	College of Architecture and Environmental Design
Environmental Planning	M.E.P.	Landscape ecological planning, urban and regional development, urban design	School of Planning and Landscape Architecture

\* Doctoral courses for these interdisciplinary programs administered by ASU Main are also offered at ASU East.

ASU colleges, including the College of Architecture and Environmental Design, to meet the instructional and informational needs of a diverse community.

The ASU Extended Campus goes beyond the boundaries of the university's three physical campuses to provide access to quality academic credit and degree programs for working adults through flexible schedules; a vast network of off-campus sites; classes scheduled days, evenings, and weekends; and innovative delivery technologies including television, the Internet, and Independent Learning. The Extended Campus also offers a variety of professional continuing education and community outreach programs.

For more information, see "ASU Extended Campus," page 703, or access the Web site at [www.asu.edu/xed](http://www.asu.edu/xed).



Patio courtyard in the College of Architecture and Environmental Design/North building

Photo by Jimmie Brown

### UNIVERSITY GRADUATION REQUIREMENTS

In addition to fulfilling college and major requirements, students seeking a bachelor's degree must meet all university graduation requirements. See "University Graduation Requirements," page 79.

#### General Studies Requirement

All students enrolled in a baccalaureate degree program must satisfy a university requirement of a minimum of 35 semester hours of approved course work in General Studies, as described under "General Studies," page 83. Note that all three General Studies awareness areas are required. Consult your advisor for an approved list of courses. General Studies courses are listed in the "General Studies Courses" table, page 86, in the course descriptions, in the *Schedule of Classes*, and in the *Summer Sessions Bulletin*.

### COLLEGE DEGREE REQUIREMENTS

College of Architecture and Environmental Design degree requirements supplement the General Studies requirement. Each curriculum offered by the college includes sufficient approved course work to fulfill the General Studies requirement.

To be eligible for the Bachelor of Science in Design (B.S.D.), Bachelor of Science in Landscape Architecture (B.S.L.A.), or Bachelor of Science in Planning (B.S.P.) degrees in the college of Architecture and Environmental Design, a student must have

1. attained a cumulative GPA of 2.00 or higher for all course work taken at ASU;
2. earned a "C" or higher in each studio course; and
3. met all university degree requirements.

### MAJOR REQUIREMENTS

Students seeking the Bachelor of Science in Design degree must satisfactorily complete a curriculum of 120 or 150 semester hours, depending on the major. The Bachelor of Science in Planning degree requires 120 semester hours. The Bachelor of Science in Landscape Architecture degree requires 120 semester hours. Students majoring in Interior Design must take 150 semester hours. All other majors require 120 hours.

**Special Honors at Graduation.** At the time of graduation, students with academic distinction are awarded the respective designation *cum laude*, *magna cum laude*, or *summa cum laude*. For more information, see “Graduation with Academic Recognition,” page 82.

## ACADEMIC STANDARDS

**Lower-Division Retention Standards.** A student in one of the college’s lower division programs is placed on probation when he or she fails to maintain a cumulative GPA of 2.00. Students on probation must observe rules or limitations the college imposes on their probation as a condition of retention. If, after one semester on probation, the overall GPA is not at least 2.00 and the conditions of probation have not been met, the student is disqualified for a minimum of two full academic semesters. Appeals may be made to the college Governance and Grievance Committee. For more information, see “Retention and Academic Standards,” page 75.

**Upper-Division Retention Standards.** Students in upper division programs are placed on probation when *any* of the following occur:

1. failure, incomplete, or withdrawal from any required course;
2. a semester GPA below 3.00;
3. a grade of “D” or “E” in a design studio, a design laboratory, or a design lecture; or
4. violation of the college *Code of Student Responsibilities* or any admission agreement.

Students on probation must observe rules or limitations that the college or academic unit places on their probation as a condition of continuation. Students may be removed from a program (but not necessarily the university) if

1. the requirements imposed are not met or the probationary semester GPA is below 3.00 after one semester on probation;
2. failures or withdrawals in required courses are not resolved at the next offering of the course;
3. they fail or withdraw from required sequential courses; or
4. incompletes in required sequential courses are not completed before the first day of class of the next semester.

A student removed from a program is not guaranteed reinstatement in the program even if probation requirements or requirements placed on readmission are fulfilled. Appeals may be made first to the appropriate academic unit and, if necessary, to the college Governance and Grievance Committee. For more information, see “Retention and Academic Standards,” page 75.

**Incompletes.** It is the student’s responsibility to contact the instructor regarding the process of requesting and fulfilling an incomplete. Tardiness in contacting the instructor may result in a failing grade. Students must obtain an official “Request for Grade of Incomplete” form from their academic units. The completed form must include a justification, a listing of requirements that have not been fulfilled,

and a proposed schedule of completion. The instructor reviews the request, proposes modifications if necessary, and submits a copy of the request to the appropriate program head (for upper division students) or a college academic advisor (for lower division students). An incomplete in an upper division course that is a prerequisite for sequential courses automatically places the student on probation and denies enrollment in subsequent courses. For more information, see “Incomplete,” page 72.

**Withdrawals.** University withdrawal regulations apply to lower division courses. In addition, because the college’s upper division curricula are modular and sequential and because space in the programs is limited, a student is expected to progress through the curriculum with his or her class. Withdrawal from a required upper division course automatically places a student on probation. Withdrawal from a required upper division course in a required sequence automatically removes the student from the program beginning the subsequent semester. For more information, see “Grading System,” page 72.

**Credit No Credit.** The only courses accepted toward graduation with a grade of pass fail or credit no credit are internships and field studies.

**Foreign Study.** The College of Architecture and Environmental Design maintains active communications with several foreign institutions offering professional course work similar to the programs of the college. This opportunity is available for students who wish to pursue professional studies at a foreign institution in lieu of resident course work for up to one academic year. Any interested student is encouraged to inform the head of his or her academic unit at the earliest possible date of any intentions for foreign study.

Exchange programs currently exist with the Stuttgart University, Germany; Wageningen Agricultural University, the Netherlands; the University of Valladolid, Spain; the University of British Columbia, Canada; and the Autonomous University of Guadalajara, Mexico. Foreign study programs in France, Italy, and Spain and summer off campus courses are offered by the School of Architecture. The School of Planning and Landscape Architecture offers a summer landscape planning course in Europe.

Students are also encouraged to consider foreign travel for either a semester or an entire academic year. A leave of absence must be requested for foreign study and foreign travel. Each academic unit reserves the right to evaluate the content and the student’s competency in each of the courses completed at foreign institutions.

**Internship.** Upper division students in the college are required to complete an internship program during the summer, normally between the third and fourth years of study.

**Attendance.** Attendance is expected at all classes, laboratories, and seminars and is a criterion for evaluating

L liberal arts and critical inquiry MA mathematics CS computer statistics quantitative applications HU humanities and fine arts SB social and behavioral sciences SG natural science—general core courses SQ natural science—quantitative C cultural diversity U the United States G global history. See General Studies page 83.

## COLLEGE OF ARCHITECTURE AND ENVIRONMENTAL DESIGN

performance. Absences and missing work due to absences may result in failure of a course or academic probation. A student may not be excused from attending a class except for medical reasons or other serious personal conditions beyond his or her control. Requests for special consideration must be submitted in writing to the instructor. If accepted, a student may be allowed to take a late or special examination or to submit missing work. Tardiness in contacting the instructor is cause for denying acceptance. For university policy regarding religious holidays, see "Equal Opportunity and Affirmative Action," page 21.

**Employment.** It is difficult for students in professional programs to carry part-time employment while in school. Acceptance to any of the college's upper division programs presumes a commitment of a minimum of eight hours a day for professional studies. Prior work experience is not a requirement for admission to upper division programs.

**Retention of Student Work.** The college reserves the right to retain any or all projects or work submitted to meet course requirements for the college's future use in instruction, publication, and exhibition.

**Student Leave of Absence.** Upper division students who withdraw from classes or do not continue sequentially in enrollment must request both a leave of absence and readmission in writing from the head of the appropriate academic unit. Leaves of absence are for one-year increments and may be approved for personal reasons, travel, work, or additional study in other disciplines. A student on leave must make the written request for readmission before May 1 for the fall semester of the year of return or before November 1 for the spring semester so that a space may be reserved. Failure to request a leave of absence may result in removal from the program.

### STUDENT RESPONSIBILITY

The purpose of this code is to promulgate standards of conduct for students of the College of Architecture and Environmental Design and to establish procedures for reviewing violations. Students are expected to support and maintain the highest professional standards with regard to their individual conduct and their personal and common environments in the college. Copies of the *Code of Student Responsibilities* are available from the Office of the Dean and a college academic advisor.

### SPECIAL PROGRAMS

The college and its academic units regularly sponsor lecture series, symposia, and exhibits. In addition, faculty and students attend regional and national meetings of educators and professionals. Academic units sponsor student awards programs and regularly invite professionals and critics to reviews of student projects. The college also participates with the Barrett Honors College, offering courses accepted in that college.

### GENERAL INFORMATION

**Accreditation.** Most states require that an individual intending to become an architect hold an accredited degree.

There are two types of degrees that are accredited by the National Architectural Accreditation Board (NAAB): 1) the Bachelor of Architecture, which requires a minimum of five years of study; and 2) the Master of Architecture, which requires a minimum of three years of study following an unrelated bachelor's degree or two years following a related preprofessional bachelor's degree. These professional degrees are structured to educate those who aspire to registration licensure as architects.

The four-year preprofessional degree, where offered, is not accredited by NAAB. The preprofessional degree is useful for those wishing a foundation in the field of architecture, as preparation for either continued education in a professional degree program or for employment options in architecturally related areas. For more information, see "Accreditation and Affiliation," page 715.

**Dean's List.** Undergraduate students who earn 12 or more graded semester hours ("A," "B," "C," "D," or "E") during a semester in residence at ASU with a GPA of 3.50 or higher are eligible for the Dean's List. A notation of achieving the distinction of being listed on the Dean's List appears on the final grade report for that semester.

### College of Architecture and Environmental Design

**Alumni Association.** The College of Architecture and Environmental Design Alumni Association encourages graduates to contribute to the college by acting as liaisons among the college community, students, and practicing professionals. The college also calls on the members of the Architecture Guild of Arizona State, the Arizona Design Institute, the Council for Design Excellence, and the Planning Advisory Committee for advice and to promote the goals of the college.

**Council for Design Excellence.** The Council for Design Excellence has been created to consolidate a partnership between the College of Architecture and Environmental Design and key community leaders who share a vital interest in the development of high quality in the built environment of the Phoenix metropolitan area. By joining together professionals, business and civic leaders, students, and faculty in a common pursuit of design excellence, the council seeks to make a profound difference in the quality of life.

**Affiliations.** For information on affiliations maintained by the college, see "Accreditation and Affiliation," page 715.

**Student Professional Associations.** The purpose of the student associations is to assist students with the transition into professional life and to acquaint them with the profession relating to their program of study. These include the following associations:

- American Institute of Architecture Students
- College of Architecture and Environmental Design
- Pre-Studies Organization
- Sigma Phi Zeta
- Student Association of the College of Architecture and Environmental Design
- Student Association of Interior Designers (ASID, IALD, IFDA, IFMA, IIDA)



Student Chapter American Center for Design  
 Student Chapter American Planning Association  
 Student Chapter American Society of Landscape Architects  
 Student Chapter Industrial Designers Society of America  
 Student Chapter Society of Environmental Graphic Designers  
 Student Chapter Society for Range Management  
 Student Chapter Soil and Water Conservation Society

## School of Architecture

www.asu.edu/caed/architecture

480 965-3536

AED 162D

**Ron McCoy, Director**

**Regents' Professor:** Cook

**Professors:** Hoffman McCoy, Meunier Oze, Rotond, Underh, Underwood

**Associate Professors:** Bryan E n, Hartman, Kro off, Kupper, Loope, Spe man Van Duzer Zygas

**Assistant Professors:** Burnette Ca cco, Hahn, Hejduk nnes, Kobayash, Lerum Murff Petrucc Soroka

### PURPOSE

The architecture program at ASU offers an integrated curriculum of professional courses and focuses on the design laboratory. The program reflects an awareness of the complex factors affecting the quality of the built environment. The program seeks through scholarship, teaching, research, design, and community service to develop the discipline and the knowledge necessary to address the important environmental and design issues faced by society.

In addition to developing knowledge and skills in architectural design, building technology, and professional practice, students are encouraged to select electives from a broad range of approved courses both within the college and across the university. These electives may be selected to devise a minor, to further professional study, or in some other fashion to enrich the student's academic experience.

### ORGANIZATION

The School of Architecture's program is organized by the faculty under the direction and administration of the director and standing committees of the faculty.

### DEGREES

The faculty in the School of Architecture offer the Bachelor of Science in Design degree with a major in Architectural Studies.

The program in architecture culminates with the professional degree Master of Architecture, which is accredited by the National Architectural Accrediting Board (NAAB). Completion of the program is intended to take six years.

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The NAAB, which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes two types of degrees: the Bachelor of Architecture and the Master of Architecture. A program may be granted a five year, three-year, or two year term of accreditation, depending on its degree of conformance with established educational standards.

Master's degree programs may consist of a preprofessional undergraduate degree and a professional graduate degree, which, when earned sequentially, compose an accredited professional education. However, the preprofessional degree is not, by itself, recognized as an accredited degree.

Admission to the professional program in architecture is competitive and begins after completion of lower-division requirements, as described in "Admission," on this page and "Degree Requirements" page 129. The professional program includes two years of upper division study leading to the Bachelor of Science in Design (B.S.D.) and two years of graduate study leading to the Master of Architecture, as described in "Upper Division Professional Program," on page 128.

Applicants who already hold a bachelor's degree in another field should apply to the 3+ year Master of Architecture degree program. See the *Graduate Catalog* for more information.

In cooperation with the Barrett Honors College, the school offers a special honors curriculum for students with Barrett Honors College standing. Consult the advising officers in the school for information.

### ADMISSION

**Lower-Division Program.** New and transfer students who have been admitted to the university and who have selected Architectural Studies as their major are admitted to the lower division architecture program without separate application to the School of Architecture. Completion of lower division requirements does not ensure acceptance to the upper division professional program.

Transfer credits for the lower division program are reviewed by the college faculty. To be admissible to this curriculum, transfer courses must be equivalent in both content and level of offering. A review of samples of work is required for studio classes. Consult a college academic advisor for an appointment.

Entering lower division students who are not prepared to enroll in some of the required courses are required to complete additional university course work. These additional

L iteracy and c it a q ry MA mathematical CS computer statistics quantitative applications HU humanities and fine arts SB social and behavioral sciences SG natural science—general core course SQ natural science—quantitative C cultural diversity in the United States G global history See General Studies page 83

## COLLEGE OF ARCHITECTURE AND ENVIRONMENTAL DESIGN

prerequisite courses do not apply to the Bachelor of Science in Design degree requirements

**Upper-Division Professional Program.** Admission to the upper division professional program is competitive and limited by available resources. Admission is awarded to those applicants demonstrating the highest promise for professional success.

Transfer students who have completed the equivalent required lower division course work may apply to the upper division program. Prior attendance at ASU is not required for application to the upper division program.

To be eligible for admission to the upper division program the following requirements must be met:

1. admission to ASU (note that application and admission to ASU are separate from application and admission to the upper division program);
2. completion of lower division requirements or equivalents as approved by a college academic advisor and the faculty of the school;
3. a minimum university cumulative GPA of 3.00 as well as a 3.00 GPA based only on the required lower division courses or equivalents; and
4. submission of a portfolio for detailed information about this requirement, see "Portfolio Format Requirements," on this page.

In an unusual circumstance, when the admission standard deficiency is slight, written evidence of extenuating circumstances is convincing, and promise for success is evident, a student may be granted admission to the upper division on a *provisoria* basis.

Students not admitted to the upper division program are not dismissed from the school and may reapply or may transfer to other programs. Students who intend to reapply should meet with a college academic advisor.

Applications for transfer into the upper division professional program are considered only if vacancies occur. Transfer applicants must demonstrate that equivalent course work has been completed and applicants must be academically competitive with continuing students.

Students who successfully complete the upper division requirements receive the Bachelor of Science in Design degree in Architectural Studies. This is not a professional degree. To complete the professional architecture program, students must attain the NAAB accredited Master of Architecture degree. Students who receive the B.S.D. are eligible to apply for the graduate program and should see the *Graduate Catalog* for proper application procedures. This application process is competitive and based on a thorough review of a student's undergraduate preparation and performance.

Students with the four year Bachelor of Science in Design degree (with a major in Architectural Studies or an equivalent degree from another school that offers an accredited professional degree in architecture) should apply directly to the graduate program.

## APPLICATION TO UPPER-DIVISION PROGRAMS

**Upper-Division Application Procedures.** Students should write to a college academic advisor for the application form well in advance of the application deadline. The following dates and procedures are for students applying to 2003-2004 upper division programs.

**Upper-Division Application Deadlines.** April 25, 2003  
Portfolio and application documents are due in the school office by 5 P.M.

*June 3, 2003* If the spring 2003 semester includes transfer course work (i.e., course work taken at an institution other than ASU), a student must submit his or her transcripts to the school no later than June 3. These transcripts may be unofficial copies. A second set of official transcripts must be sent to the university Undergraduate Admissions office. Application is not complete until the university receives official transcripts for transfer course work. For those transfer students whose academic term ends in June rather than May, this deadline may be extended upon the written request of the applicant.

*July 1, 2003* Acceptance notices are mailed no later than July 1.

**Return of Letter of Acceptance.** A signed receipt of acceptance of admission must be received by the school by the date indicated on the Notice of Acceptance. Alternates may be accepted at a later date if space becomes available.

**Matriculation.** An accepted student is expected to begin his or her upper division professional program at the beginning of the immediate fall term. There is no spring admission to the upper division.

**Portfolio Format Requirements.** Each applicant is responsible for obtaining the following documents and including them in the portfolio. Application materials are submitted at one time in a presentation binder (portfolio) with plastic sleeves (8.5 x 11 format only). Items must appear in the following order:

*Page 1.* The application form should be completely filled out with the first page visible. Application forms are available from the college Academic Advising Office.

*Page 2.* The second page of the application should be visible.

*Page 3.* Application Essay. The student's name should not appear on the essay.

*Page 4.* All college transcripts for both ASU and transfer work should be included through the fall 2002 semester. Copies are acceptable. An academic advisor forwards 2003 ASU transcripts. (Applicants wishing to transfer work are responsible for submitting these transcripts by June 3 so that they may be added to their portfolios. The student is also responsible for getting an official transfer transcript sent directly to the Office of the Registrar.)

*Page 5.* A certificate of admission is necessary only for those students who have been newly admitted for fall 2003 and who are applying directly into an upper division program. The certificate is not required for students currently attending ASU.

*Following Pages: Usually from 10 to 20 Sheets.* Students should present work sufficient to demonstrate the depth and breadth of their creative activity. This work should include but is not limited to examples of two and three dimensional design and graphics. Each project should be clearly identified: course, length of project, etc., with a concise accompanying description of the assignment.

Students should obtain a portfolio requirements addendum for their major from the college's Academic Advising Office, ARCH 141, at the beginning of the academic year in which they intend to apply to the upper division program. Requirements or instructions indicated in the addendum for that academic year take precedence over any other printed material.

Students are encouraged to include additional materials, written or pictorial, that provide additional evidence of skills and abilities and of the aptitude and commitment to the major. When any work submitted is not completely original, the source must be given. When work is of a team nature, the applicant's role should be clearly indicated. Original examples or slides must not be submitted. All examples must be photographs or other reproduction graphic media.

**Return of Portfolios.** Application documents (pages 1-5) remain the property of the College of Architecture and Environmental Design. However, the remaining portfolio is returned after the admissions review, provided the applicant encloses a self-addressed return mailer with sufficient pre-paid postage. Portfolios may be claimed in person after July 1, 2003. If the applicant provides written permission, another person may claim the portfolio. After one year, unclaimed portfolios are discarded. While care is taken in handling the portfolios, no liability for lost or damaged materials is assumed by the college or school.

## ADVISING

Advising for the lower division curriculum is through the college Academic Advising Office. Advising for upper division students is by assigned faculty advisors and administrative personnel from the School of Architecture.

## DEGREE REQUIREMENTS

The Bachelor of Science in Design degree in Architectural Studies requires a minimum of 120 hours of course work. Most lower division students pursue option A, however, those who intend eventually to seek an advanced degree in either engineering or building science are encouraged to fulfill the requirements outlined in option B. See an advisor in the Academic Advising/Student Services Office (ARCH 141) for further information about option B.

Option B students who intend to pursue graduate degrees in an engineering discipline should also consult with the College of Engineering and Applied Sciences advising office for any additional requirements.

## GENERAL STUDIES REQUIREMENT

The following curriculum includes sufficient approved course work to fulfill the General Studies requirement. See "General Studies," page 83 for requirements and a list of approved courses. Note that all three General Studies awareness areas are required. Consult an advisor for an approved list of courses.

## GRADUATION REQUIREMENTS

In addition to fulfilling college and major requirements, students must meet all university graduation and college degree requirements. See "University Graduation Requirements," page 79, and "College Degree Requirements," page 124.

The accredited professional degree Master of Architecture requires an additional 36 hours of approved graduate level course work. For more information, see the *Graduate Catalog*.

### Architectural Studies—B.S.D. Lower-Division Requirements Option A<sup>1</sup>

#### First Year

##### Fall

APH 100 Introduction to Environmental Design <i>HU, G, H</i> . . . . .	3
or ADE 120 Design Fundamentals I <sup>2</sup> . . . . .	3
ENG 101 First Year Composition . . . . .	3
Elective . . . . .	3
Elective (MAT 170) Prerequisite may be needed . . . . .	3
SB elective . . . . .	3
<b>Total</b> . . . . .	<b>15</b>

##### Spring

ADE 120 Design Fundamentals I <sup>2</sup> . . . . .	3
or APH 100 Introduction to Environmental Design <i>HU, G, H</i> . . . . .	3
ENG 102 First Year Composition . . . . .	3
MAT 200 Brief Calculus <i>MA</i> . . . . .	3
Elective . . . . .	3
Ce elective . . . . .	3
<b>Total</b> . . . . .	<b>15</b>

#### Second Year

##### Fall

ADE 221 Design Fundamentals II . . . . .	3
ADE 223 Design Fundamentals II Lecture . . . . .	1
APH 200 Introduction to Architecture <i>HU, G</i> . . . . .	3
PHY 111 General Physics <i>SQ</i> . . . . .	3
PHY 113 General Physics Laboratory <i>SQ</i> . . . . .	1
Le elective . . . . .	3
<b>Total</b> . . . . .	<b>14</b>

##### Spring

ADE 222 Design Fundamentals III . . . . .	3
ADE 224 Design Fundamentals III Lecture . . . . .	1
ANP 236 Introduction to Computer Modeling <i>CS</i> . . . . .	3
SB elective . . . . .	3

<sup>1</sup> Literacy and critical inquiry **MA** mathematics **CS** computer statistics qualitative approach **HU** humanities and fine art **SB** social and behavioral science **SG** natural science—general core course **SQ** natural science—quantitative **C** cultural diversity **nt** integrated Studies **G** global **H** history. See General Studies page 83.

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SG or SQ elective	4
Total	14
Option A lower division total	58

- <sup>1</sup> Transfer credits are reviewed by the college and evaluated for applicability to this curriculum. To be applicable, transfer courses must be equivalent in both content and level of offering.
- <sup>2</sup> Portfolio review is required for transfer studio work. Submit the portfolio to the Academic Advising Office, ARCH 141
- <sup>3</sup> Both PHY 111 and 113 must be taken to secure SQ credit.

### Architectural Studies B.S.D. Upper Division Requirements Option A

#### Third Year

##### Fall

ADE 321 Architectural Studio I	5
APH 313 History of Western Architecture I <i>L HU*</i>	3
ATE 353 Architectural Construction	3
Elective*	3
Total	14

##### Spring

ADE 322 Architectural Studio II	5
ANP 331 Programming for Design	3
APH 314 History of Western Architecture II <i>L HU*</i>	3
ATE 361 Building Structures I	3
Total	14

##### Summer

ARP 484 Clinical Internship	3
Total	3

#### Fourth Year

##### Fall

ADE 421 Architectural Studio III	5
ATE 451 Building Systems I	3
ATE 462 Building Structures II	3
Elective*	3
Professional elective*	3
Total	17

##### Spring

ADE 422 Architectural Studio IV	5
ATE 452 Building Systems II	3
Architectural history elective	3
Elective*	3
Total	14
Option A upper division total	67
B.S.D. option A minimum total	126

\* These courses may be completed before admission into the upper division

### Master of Architecture Graduate-Level Professional Program Requirements

#### Fifth Year

##### Fall

ADE 521 Advanced Architectural Studio I	5
APH 505 Foundation Theory Seminar	3
ATE 553 Building Systems III	3
ATE 563 Building Structures III	3
Total	14

##### Spring

ADE 522 Advanced Architectural Studio II	5
APH 515 Current Issues and Topics	3
ATE 556 Building Development	3
Professional elective*	3
Total	14

#### Sixth Year

##### Fall

AAD 551 Architectural Management I	3
ADE 621 Advanced Architectural Studio III	5
ANP 681 Project Development	3
Professional elective*	3
Total	14

##### Spring

AAD 552 Architectural Management II	3
ADE 622 Advanced Architectural Studio IV	5
Approved elective	3
Professional elective	3
Total	14
Graduate division total	56

\* At least one professional elective must be a CAD course.

## ARCHITECTURAL STUDIES MINOR

The Architectural Studies minor is available to non architecture majors interested in this field, but who are pursuing another major. A minimum of 18 semester hours are required for the minor. The courses are designed to provide an overview of architecture throughout history while focusing on architectural design with the intention to explore the process of design thinking.

### Required Courses

APH 200 Introduction to Architecture <i>HU G</i>	3
APH 300 World Architecture I/Western Cultures <i>HU G H</i>	3
APH 313 History of Architecture I <i>L HU G</i>	3
APH 314 History of Architecture II <i>L HU G</i>	3
Total	12

Six additional semester hours of electives in the architectural history and theory concentration, with a course prefix of APH or approved PUP/PLA prefix, must be selected from the following list for a total of 18 semester hours.

ANP 331 Programming for Design*	3
APH 394 Special Topics	3
APH 411 History of Landscape Architecture <i>H</i>	3
APH 414 History of the City <i>H</i>	3
APH 446 21st Century Architecture I <i>HU</i>	3
APH 447 21st Century Architecture II <i>HU</i>	3
APH 494 Special Topics	3
APH 499 Individualized Instruction*	3
APH 511 Energy/Environmental Theory	3
PLA 420 Theory of Urban Design <i>HU</i>	3
or PUP 420 Theory of Urban Design <i>HU</i>	3
Total	30

\* These courses require a petition to the School of Architecture

A minimum GPA of 3.00 is required to pursue the minor in Architectural Studies

## COURSES

Subject matter within the school is categorized in the following instructional areas:

**Architectural Administration and Management.** AAD courses focus on the organizational and management aspects of architectural practice, including management coordination, administrative procedures, ethics, legal constraints, and the economics of practice.

**Architectural Design and Technology Studios.** ADE courses require the synthesis of knowledge and understanding gained from other course work and develop an understanding of design theory and design skill through a series of comprehensive design projects. Students apply analytical methods, compare alternative solutions, and develop sophisticated technical and conceptual results.

**Environmental Analysis and Programming.** ANP courses develop the ability to analyze and program environmental and human factors as preconditions for architectural design using existing and emerging methods of evaluation and analysis.

**Architectural Philosophy and History.** APH courses develop an understanding of architecture as both a determinant and a consequence of culture, technology, needs, and behavior in the past and present. Studies are concerned with the theory as well as the rationale behind methods and results of design and construction. Case studies are both domestic and international.

**Architecture Professional Studies.** ARP courses provide students with off campus opportunities, educational experience in group and individual studies relative to specific student interests, and faculty expertise, including summer internships and field trips.

**Architectural Technology.** ATE courses develop knowledge of the technical determinants, resources, and processes of architecture. These studies focus on the science and technology of design and construction, including materials, building systems, acoustics, lighting, structural systems, environmental control systems, computer applications to design and technology, and both passive and active solar systems. Emphasis is on measurable and quantifiable aspects.

**Architectural Communication.** AVC courses develop the student's understanding of communication theory as it applies to architectural design and practice as well as skills in drawing, graphics, photography, presentation design, and the design process.

The courses required in the upper division and graduate levels of the professional program are not open to nonmajors and students not admitted to the upper division program.

## GRADUATE PROGRAMS

The faculty of the School of Architecture offer a Master of Architecture and a M.S. degree in Building Design. Concurrent application to both degree programs is possible, and each application is evaluated by the respective admission

committees separately. Also, a dual career program, Master of Architecture/Master of Business Administration, has been established in cooperation with the College of Business. Also offered is a collegewide, interdisciplinary Ph.D. degree in Environmental Design and Planning with concentrations in design, history, theory, and criticism; and planning. For more information, see the *Graduate Catalog*.

## ARCHITECTURAL ADMINISTRATION AND MANAGEMENT (AAD)

**AAD 494 Special Topics.** (1–4)  
*selected semesters*

**AAD 551 Architectural Management I.** (3)  
*fall*

Design development coordination of construction documents, cost estimating, bidding and negotiations, construction observation and post construction services. Lecture, discussion, case studies. Prerequisite: graduate level standing. Corequisite: ADE 621, ANP 681.

**AAD 552 Architectural Management II.** (3)  
*spring*

Organization, human performance, and market influences on architecture firms and projects. Readings, case studies and analysis of managerial problems and solutions. Lecture, discussion. Prerequisite: with a grade of C or higher: AAD 551. Corequisite: ADE 622.

**AAD 555 Architect as Developer.** (3)  
*once a year*

Development building real estate, construction funding and acquisition and the sources for capital. Prerequisite: instructor approval.

**AAD 598 Special Topics.** (1–4)  
*selected semesters*

**AAD 599 Thesis.** (1–12)  
*fall or spring*

Fee

**AAD 681 Professional Seminar: Capstone.** (3)  
*selected semesters*

Examinations ethical, political, social, economic, ecological, and cultural issues confronting the practice of architecture. Seminar, readings, case studies.

**Omnibus Courses.** For an explanation of courses offered but not specifically listed in this catalog, see Omnibus Courses, page 56.

## ARCHITECTURAL DESIGN AND TECHNOLOGY STUDIOS (ADE)

**ADE 120 Design Fundamentals I.** (3)  
*fall, spring, summer*

Development of visual literacy introduces drawing and graphic representation as methods of seeing and problem solving. Studio. Prerequisite: major in College of Architecture and Environmental Design.

**ADE 221 Design Fundamentals II.** (3)  
*fall*

Exercises in basic design stressing creative problem solving methods, principles of composition and aesthetic evaluation. Development of vocabulary for environmental design. Lecture, studio. Prerequisite: with a grade of C or higher: ADE 120. Corequisite: ADE 223.

**ADE 222 Design Fundamentals III.** (3)  
*spring*

Applies design fundamentals with an emphasis on architectural issues. Lecture, studio. Prerequisite: APH 200. Prerequisite with a grade of C or higher: ADE 221. Corequisite: ADE 224.

**ADE 223 Design Fundamentals II Lecture.** (1)  
*fall*

Theory and application of basic design principles, history and theory of how architecture design is impacted by basic design. Lecture, discussion. Corequisite: ADE 221.

Literacy and critical inquiry: **MA** mathematics, **CS** computer statistics, quantitative, population, **HU** humanities and fine arts, **SB** social and behavioral science, **SG** global science—general core courses, **SO** natural science, qualitative, **C** cultural diversity, the United States, **G** global history/culture. See General Studies, page 83.

## COLLEGE OF ARCHITECTURE AND ENVIRONMENTAL DESIGN

### ADE 224 Design Fundamentals III Lecture. (1)

*spring*

History and theory of design fundamentals with an emphasis on architectural issues. Lecture. Discussion. Corequisite: ADE 222

### ADE 321 Architectural Studio I. (5)

*fall*

Introductory building design problems. Emphasizes design process, communication, methods, aesthetic construction, and technology. Lecture. Studio. Field trip. Fee. Prerequisite: admission to upper division. Corequisite: ATE 353

### ADE 322 Architectural Studio II. (5)

*spring*

Site and building design problems. Emphasizes programmatic and environmental determinants and building in natural and urban contexts. Lecture. Studio. Field trips. Fee. Prerequisite: with a grade of C or higher: ADE 321. Corequisite: ANP 331

### ADE 421 Architectural Studio I I. (5)

*fall*

Topical design problems of intermediate complexity including interdisciplinary problems. Lecture. Studio. Field trips. Fee. Prerequisite: with a grade of C or higher: ADE 322. Corequisite: ARP 484

### ADE 422 Architectural Studio IV. (5)

*spring*

Topical design problems of advanced complexity including interdisciplinary problems. Lecture. Studio. Field trips. Fee. Prerequisite: with a grade of C or higher: ADE 421.

### ADE 510 Foundation Architectural Studio. (6)

*summer*

Fundamentals of architectural design methodology, visualization, and representation. Lecture. Studio. Field trips. Fee. Prerequisite: admission to Master of Architecture degree program. Corequisite: APH 509

### ADE 511 Core Architectural Studio I. (6)

*fall*

Apples design fundamentals in architectural problems including construction, technology, programmatic and environmental determinants. Lecture. Studio. Field trips. Fee. Prerequisite: with a grade of C or higher: ADE 510. Corequisite: ATE 353

### ADE 512 Core Architectural Studio II. (6)

*spring*

Apples architectural design fundamentals to increasing complexity problems including specific and activities. Lecture. Studio. Field trips. Fee. Prerequisite: with a grade of C or higher: ADE 511

### ADE 521 Advanced Architectural Studio I. (5)

*fall*

Design problems emphasizing theory, aesthetic, and tectonic influences on architectural form. Lecture. Studio. Field trips. Fee. Prerequisite: admission to Master of Architecture degree program. Corequisite: APH 505

### ADE 522 Advanced Architectural Studio II. (5)

*spring*

Design problems emphasizing the comprehensive integration of building systems and technologies as influences on architectural form. Lecture. Studio. Field trips. Fee. Prerequisite: with a grade of C or higher: ADE 521. Corequisites: APH 515, ATE 556

### ADE 621 Advanced Architectural Studio III. (5)

*fall*

Design problems emphasizing the urban context, planning issues, and urban design theory as influences on architectural form. Lecture. Studio. Field trips. Fee. Prerequisite: with a grade of C or higher: ADE 522. Corequisites: AAD 551, ANP 681

### ADE 622 Advanced Architectural Studio IV. (5)

*spring*

Individual student-initiated project reflecting a cumulative synthesis of architectural ideas. Studio. Fee. Prerequisites: with a grade of C or higher: ADE 621, ANP 681. Corequisite: AAD 552

### ADE 631 Building Systems Simulation Studio. (5)

*fall*

Design of energy efficient medium and large commercial complexes synthesizing to optimize performance using new and advanced algorithms. Lecture. Lab. Studio. Prerequisite: admission to graduate program

### ADE 661 Bioclimatic Design Studio. (6)

*once a year*

Sustainable architectural and site syntheses at a variety of scales emphasizing bioclimatic criteria and the use of passive and low energy systems. Prerequisite: admission to graduate program.

**Omnibus Courses.** For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses" page 56

## ENVIRONMENTAL ANALYSIS AND PROGRAMMING (ANP)

### ANP 236 Introduction to Computer Modeling. (3)

*fall and spring*

Fundamentals of computer operation, geographic information systems, geometric modeling of three-dimensional forms and rendering of light/mathematical modeling of processes using spreadsheets. Lab. Prerequisite: major in the School of Architecture. *General Studies: CS*

### ANP 331 Programming for Design. (3)

*spring*

Theory and methods for refracting constraints into opportunities for design excellence. Corequisite: ADE 322

### ANP 475 Computer Programming in Architecture. (3)

*fall and spring*

Computer programming for architectural problems and applications. Lecture. Lab. Prerequisite: CSE 183 or its equivalent

### ANP 477 Computer Applications to Design Problems. (3)

*fall*

Examines generic microcomputer software in solving architectural design problems. Emphasizes the logic of problem formulation. Lecture. Lab. Prerequisite: instructor approval

### ANP 494 Special Topics. (1-4)

*fall, spring, summer*

### ANP 500 Research Methods. (1-12)

*fall*

Fee. Prerequisite: admission to graduate program. Corequisite: ANP 561

### ANP 530 Computer Graphics in Architecture. (3)

*spring*

Fundamentals of computer graphics programming in architecture including graphics hardware, device-independent packages 2 and 3, dimensional transformations, and data structures. 2 hours lecture, 3 hours lab. Prerequisite: instructor approval. Corequisite: ANP 563

### ANP 561 Architectural Information Processing Systems. (3)

*fall*

Apples information processing systems to architectural problems. Analyzes computing tools with respect to assumptions and theories. Lecture. Lab. Prerequisite: admission to graduate program. Corequisite: ANP 500

### ANP 563 Methods in Architectural Design Computation. (3)

*spring*

Concepts and models for research in computer-aided architectural design with an emphasis on computational methods and a system framework. Discussion, lab. Prerequisite: ANP 500 or instructor approval. Corequisite: ANP 530

### ANP 590 RC: Computer Programming and Architecture. (1-12)

*fall*

### ANP 598 Special Topics. (1-4)

*fall or spring*

### ANP 599 Thesis. (1-12)

*fall or spring*

Fee

### ANP 681 Project Development. (3)

*fall*

Defines and elaborates on major ideas for implementation in ADE 622 in relation to contemporary theory and practice. Seminar. Prerequisite: with a grade of C or higher: ADE 522. Corequisites: AAD 551, ADE 621

**Omnibus Courses.** For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses" page 56

## ARCHITECTURAL PHILOSOPHY AND HISTORY (APH)

### APH 100 Introduction to Environmental Design. (3)

*fa and spring*

Survey of environmental design include historical examples and the theoretical, social, technical, and environmental forces that shape them. Cross-listed as DSC100 PUP 100. Credit allowed for only APH 100 or DSC 100 or PUP 100.

*General Studies: HU, G, H*

### APH 200 Introduction to Architecture. (3)

*fa and summer*

Survey of issues and problems affecting current architectural theory and practice. Lecture/discussion.

*General Studies: H, G*

### APH 300 World Architecture I/Western Cultures. (3)

*fa*

Historical and contemporary built environments of Western civilizations. Mediterranean, Europe, and the Americas as manifestations of cultural history and responses to environmental determinants. Prerequisite: none.

*General Studies: HU, G, H*

### APH 304 American Architecture. (3)

*selected semesters*

Architecture in the United States from earliest colonial times to present. Prerequisite: none.

*General Studies: HU*

### APH 305 Contemporary Architecture. (3)

*selected semesters*

Europe and America from the foundations of the modern movement to the present. Prerequisite: none.

*General Studies: HU*

### APH 313 History of Architecture I. (3)

*fa*

Survey of the monuments, buildings, and cities of Europe and Africa from the earliest human settlements to the present day. Prerequisite: none or standing or instructor approval.

*General Studies: L, HU, G*

### APH 314 History of Architecture II. (3)

*spring*

Survey of the monumental buildings and cities of Asia and the Americas from the earliest human settlements to the present day. Prerequisite: APH 313.

*General Studies: L, H, G*

### APH 394 Special Topics. (1-4)

*selected semesters*

### APH 411 History of Landscape Architecture. (3)

*fa*

Physical record of human attitudes toward the land. Ancient through contemporary landscape planning and design. Cross-listed as P/A 310. Credit allowed for only APH 411 or P/A 310.

*General Studies: H*

### APH 414 History of the City. (3)

*fa*

The city from its ancient origins to the present day. Emphasizes European and American cities during the last five centuries. Cross-listed as PUP 412. Credit allowed for only APH 414 or PUP 412.

*General Studies: H*

### APH 441 Ancient Architecture. (3)

*selected semesters*

Architecture of the ancient Mediterranean world with selective emphasis on major historical complexes and monumental sites. Prerequisite: APH 313.

*General Studies: HU*

### APH 442 Preservation Planning. (3)

*selected semesters*

Principles and practices in planning for preservation, conservation, and neighborhood redevelopment. Emphasizes evaluation of historical resources. Requires off-campus field practicum. Prerequisite: instructor approval.

### APH 444 Baroque Architecture. (3)

*selected semesters*

Selected examples of Baroque architecture and urbanism with emphasis on relationships between architecture and other arts. Prerequisite: APH 314.

*General Studies: H*

### APH 446 20th Century Architecture I. (3)

*fa*

Architecture in Europe and America from the foundations of the modern movement to the culmination of the international style. Prerequisite: instructor approval.

*General Studies: HU*

### APH 447 20th Century Architecture II. (3)

*spring*

Developments in architecture since the international style. Prerequisite: APH 446.

*General Studies: H*

### APH 494 Special Topics. (1-4)

*once a year*

### APH 499 Individualized Instruction. (1-3)

*selected semesters*

### APH 505 Foundation Theory Seminar. (3)

*fa*

Foundation of conceptual architectural inquiry stressing reciprocal and interdependent relationship between design and theory. Lecture/seminar. Corequisite: ADE 521.

### APH 509 Foundation Seminar. (3)

*summer*

Historical, technical, theoretical, environmental, and professional issues in architecture. Lecture/seminar. Field trips. Corequisite: ADE 51.

### APH 511 Energy Environment Theory. (3)

*fa*

Solar and other energy sources, designed and natural environments, architectural, urban, and regional implications of strategies using the renewable resources.

### APH 515 Current Issues and Topics. (3)

*spring*

Critical examination of current architectural issues, topics, and discourse. Prerequisite: with a grade of C or higher APH 505. Corequisites: ADE 522, ADE 556.

### APH 581 Contemporary Urban Design. (3)

*spring*

Explores contemporary city and urban design issues related to contemporary cities. Seminar/lecture/discussion.

### APH 598 Special Topics. (1-4)

*fa or spring*

### APH 681 Architectural Theory. (3)

*selected semesters*

Examines architectural theory. Emphasizes application of theory to practice. Seminar. Prerequisite: instructor approval.

### APH 683 Critical Regionalism. (3)

*spring*

Critical inquiry in cultural grounds, the definition of place in architecture and practice. Lecture/field studies.

**Omnibus Courses.** For an expanded list of courses offered but not specifically listed, catalog see Omnibus Courses page 56.

## ARCHITECTURE PROFESSIONAL STUDIES (ARP)

### ARP 451 Architecture Field Studies. (1-6)

*selected semesters*

Organized field study of architecture in specified national and international locations. Credit not redited. May be repeated with approval of director.

Literacy and critical inquiry MA mathematics CS computer statistics qualitative approach HU humanities and fine arts SB social and behavioral sciences SG statistics and general sciences SQ natural and quantitative sciences C cultural literacy and literature GG global history and culture page 8



## COLLEGE OF ARCHITECTURE AND ENVIRONMENTAL DESIGN

### ARP 484 Clinical Internship. (1-3)

*fall*

Full time internship under the supervision of practitioners in the Phoenix area or other locales. Credit/no credit. Corequisite: ADE 421

### ARP 584 Clinical Internship. (1)

*fall*

Structured practical experience following a contract or paid supervised by faculty and practitioners. Prerequisite: admission to graduate program

### ARP 684 Professional Internship. (2-6)

*fall*

Field experience in architectural firm specializing in an area directly related to the student's advanced study. Integrate theory and state of the art practices. Credit/no credit. Prerequisite: admission to graduate program

**Omnibus Courses.** For an explanation of courses offered but not specified, listed in this catalog, see Omnibus Courses, page 56

## ARCHITECTURAL TECHNOLOGY (ATE)

### ATE 353 Architectural Construction. (3)

*fall*

Materials and methods of construction. Aesthetic code and construction standards. Lecture/lab. Corequisite: ADE 321 or 511

### ATE 361 Building Structures I. (3)

*spring*

Introduce load distribution on structure. Static analysis of determinate beam, trusses, arches, and rigid frame. Computer applications. Lecture/lab. Prerequisite: admission to upper division or Master of Architecture program

### ATE 451 Building Systems I. (3)

*fall*

Principles of solar radiation, heat and moisture transfer, and environmental control systems as influenced by energy conscious design. Lecture/lab. Prerequisite: admission to upper division or Master of Architecture program

### ATE 452 Building Systems II. (3)

*spring*

Architectural design implications of heating, ventilation, and air conditioning system. Principles of lighting, daylighting, and acoustics and their applications. Lecture/lab. Prerequisite: ATE 451

### ATE 462 Building Structures II. (3)

*fall*

Strength of materials. Stresses in beams and columns. Thermal effects on structures. Analysis, design, and detailing of wood structural systems. Lecture/lab. Prerequisite: ATE 361

### ATE 494 Special Topics (1-4)

*selected semesters*

### ATE 521 Building Environmental Science. (3)

*fall*

Scientific principles relating to comfort and environmental control. Heat and moisture transfer. Solar radiation. Energies for heating, cooling, and lighting. Lecture/lab. Prerequisite: admission to graduate program. Corequisite: ATE 562

### ATE 530 Day Lighting Design. (3)

*selected semester*

Daylight analysis available by design sky measurements, modeling, and simulation. Integration with passive heating/cooling building design and energy considerations. Lecture/lab

### ATE 550 Passive Cooling and Heating I. (3)

*spring*

Theory, analysis, and application of passive and low energy systems for thermal comfort in buildings emphasizing heating. Prerequisite: instructor approval

### ATE 551 Passive Cooling and Heating II. (3)

*fall*

Theory, analysis, and application of passive and low energy heating systems for thermal comfort in buildings emphasizing cooling. Prerequisite: ATE 550

### ATE 553 Building Systems III. (3)

*fall*

Design and integration of building systems, including mechanical, electrical, plumbing, security, communications, fire protection, and

telecommunication. Prerequisite: admission to Master of Architecture program

### ATE 554 Building Energy Efficiency. (3)

*selected semesters*

Impact of building design on energy performance. Comparative analysis, operation, dynamics, and subsystems integration in thermal comfort and efficiency. Prerequisite: instructor approval

### ATE 556 Building Development. (3)

*spring*

Comprehensive design development through the understanding and integration of building materials and systems. Lecture/seminar. Prerequisite: admission to graduate program. Corequisite: ADE 522, APH 515

### ATE 557 Construction Documents. (3)

*selected semesters*

Production of architectural working drawings, legalization, construction layout, site survey plans, sections, elevations, details, schedules, and coordination. Lecture/lab. Prerequisite: admission to upper division or graduate program.

### ATE 560 Building Energy Analysis. (3)

*selected semesters*

Computer simulation of building thermal behavior. Software review. Detailed study of selected simulation modeling case study projects. Lab. Prerequisite: ANP 475 or 477, ATE 582

### ATE 562 Experimental Evaluation. (3)

*selected semesters*

Instrumentation, measurement, and computational techniques for analysis of building components and assessment of thermal and human performance. Fee. Corequisite: ATE 521

### ATE 563 Building Structures III. (3)

*fall*

Analysis, design, and detailing of steel buildings and frames. Lateral analysis of moment-resisting and braced frame systems. Lecture/lab. Prerequisites: ATE 462 or its equivalent, admission to graduate program

### ATE 564 Advanced Structures: Concrete. (3)

*selected semesters*

Analysis, design, and detailing of concrete systems considering ultimate and service load conditions and shear walls and lateral analysis. Computer application. Prerequisite: ATE 563 or instructor approval

### ATE 565 Advanced Structures: High Rise. (3)

*selected semesters*

Developments in high rise construction. Effects of wind and seismic forces. Preliminary analysis, design, and detailing considering code requirements. Lecture/lab. Prerequisite: ATE 563 or instructor approval

### ATE 582 Environmental Control Systems. (3)

*spring*

Heating, ventilation, and air conditioning systems. Loads, psychrometric, refrigeration cycle, air water distribution, controls, energy performance standards, and utility rates. 2 hours lecture, 3 hours lab. Prerequisite: ATE 451 or 521

### ATE 599 Thesis. (1-12)

*fall or spring*

Fee

## ARCHITECTURAL COMMUNICATION (AVC)

### AVC 161 Advanced Freehand Perspective Drawing. (2)

*selected semesters*

Introduce color media and analytical and design drawing exercises. 4 hours studio. Prerequisite: major in the College of Architecture and Environmental Design

### AVC 494 Special Topics. (1-4)

*once a year*

### AVC 598 Special Topics. (1-4)

*fall or spring*

## ENVIRONMENTAL DESIGN AND PLANNING (EPD)

See the *Graduate Catalog* for the EPD courses

## School of Design

www.asu.edu/caed/design

480 965-4135

AED 154B

### Jacques Giard, Director

**Professors:** Brandt, Giard, Kroeger

**Associate Professors:** Bernard, Cutler, Johnson, McDermott, Pate, Ratner, Sanft, Witt

**Assistant Professors:** Boradkar, Herring, McCoy, Niederhelman, Rothstein, Thibault, Catas, Weed

**Faculty Associates:** Fife, Johannes, Keay, Kroeger, Montgomery, Sentenry, Sneed, Soa, Verch, White

### PURPOSE

The School of Design educates individuals for the professional worlds of graphic design, industrial design, and interior design. The curriculum focuses on the skills and knowledge that are necessary in these design professions and are undertaken in a learning environment that bridges the academic milieu to the professional world. This direction is further conditioned by the belief that designers have a responsibility to the public and communities they serve. Consequently, students are exposed to a full breadth of learning experiences, from courses in design history, human factors, and the theories of the profession to the rigors and demands of the design studio. Students learn to integrate aesthetic values into their designs while considering contextual issues. The goal of the school's academic program is to graduate designers who are accomplished and visually sophisticated and who will continue to evolve in their chosen profession. To this end, the school provides an environment that is conducive to design excellence. It has a faculty of active professionals, excellent facilities and resources, and a network that is international in scope.

More information about the School of Design may be obtained via the Web address provided or by sending electronic mail to caed.advisn@asu.edu.

### ORGANIZATION

Programs in the School of Design are organized by the faculty of the school under the direction and administration of the director, and standing committees of the faculty.

### DEGREES

The faculty in the School of Design offer the Bachelor of Science in Design degree with three majors: Graphic Design, Industrial Design, and Interior Design. Applications are not being accepted to the major in Design Science.

**Graphic Design.** The Graphic Design program not only prepares individuals for the graphic design profession, but

also for graduate work as well. The goal of the faculty is to offer the best graphic design education, allowing the graduating student every option available. Studio classroom projects are planned to strengthen and refine students' proficiency in the language, process, and technical aspects of the profession. Projects are intended to help students think critically, both as individuals and as members of a group. Students opting for the profession can expect to work in the areas of advertising design, brand identity, broadcast graphics, corporate identity, environmental graphics, informational graphics, in-house corporate design, museum informational design, publication design, and Web site design. Students pursuing graduate studies can expect to be equally well prepared with critical and analytical thinking skills coupled with a diversified portfolio. The program is dedicated to a comprehensive education in graphic design as it relates to the changing communication standards of today and in the future.

**Industrial Design.** The program in Industrial Design prepares creative individuals to design manufactured objects used by people on a daily basis. The industrial design profession serves the needs of consumers and manufacturers by developing products that are attractive, useful, safe, convenient, and comfortable to use. The designer's special talents and skills include a sense of the aesthetic, knowledge of materials and processes, and an understanding of the physical and psychological needs of the user. Industrial designers often serve as a catalyst among management, marketing, and engineering.

By way of studio projects, students learn to visualize ideas, to communicate them to others, and to refine their skills in freehand sketching, computer-aided design, and model making. Assignments are a balance of conceptual aspects and practical techniques. Typical projects include electronics, toys, furniture, sports equipment, and packaging. Focus is placed on the role of the industrial designer as a member of a team. Third-year students perform internships in a large corporation or in a consulting design agency.

**Interior Design.** The program in Interior Design is accredited by the Foundation for Interior Design Education Research, the national accrediting agency. The five-year curriculum emphasizes design process, technical skill development, problem solving, and the management skills needed to work in collaboration with the allied design professions. The goal of interior design is to create high-quality environments for human use.

Significant changes in the interior design profession over the last two decades are reflected in the program. The school is committed to integrating computer technology into each level of the curriculum. In doing so, the program offers an excellent environment for experimenting with and testing innovative applications of computer-aided design and simulation to interior design.

Liberal arts and critical inquiry MA mathematics CS computer statistics quantitative application HUM humanities and fine art SB social behavior sciences SG natural science general core SO natural sciences quantitative cultural diversity in the United States Global health care and geriatric studies pg 83

## COLLEGE OF ARCHITECTURE AND ENVIRONMENTAL DESIGN

### ADMISSION

**Lower-Division Program.** New and transfer students who have been admitted to the university and who have selected Graphic Design, Industrial Design, or Interior Design as a major are admitted to the appropriate lower division program. Transfer credits for the lower division program are reviewed by the college and evaluated for applicability to this curriculum. To be applicable, transfer courses must be equivalent in both content and level of offering. A review of samples of work is required for student assessment; consult a college academic advisor for further information.

Lower division students entering the program who are not prepared for certain courses in the curriculum (for example, algebra and trigonometry or a second course in computer programming) are required to take additional courses that do not apply to the Bachelor of Science in Design degree. If such courses are required, an additional year of study may be necessary to complete the lower division program.

Completion of lower division requirements does not ensure acceptance to an upper division professional program.

**Upper-Division Program.** When students have completed the lower division curriculum requirements, they may apply for acceptance to upper division programs in Graphic Design, Industrial Design, or Interior Design. The limited spaces available each year are awarded to applicants with the highest promise for professional success, as determined by each program. The faculty of the School of Design retain the right to admit any meritorious student who may be deficient in a published school criterion. Such admission requires an extraordinary review of the application by the school's admissions committee. Should the faculty choose to admit such an applicant, the student is placed automatically on a provisional admission status with stipulations as to what is required to be removed from probation. See "Application to Upper Division Programs," below.

Students not admitted to upper division programs are not dismissed from the university and may reapply or transfer to other programs. Students who intend to reapply should meet with a college academic advisor.

### GRADUATE PROGRAMS

The School of Design offers a Master of Science in Design (M.S.D.) degree with concentrations in graphic design, industrial design, and interior design. Additionally, a distance learning M.S.D. degree with an area of study in design analysis is offered. The faculty also participates in a collegewide, interdisciplinary Ph.D. degree in Environmental Design and Planning with concentrations in design history, theory, and criticism; and planning. For more information, see the *Graduate Catalog*.

### APPLICATION TO UPPER-DIVISION PROGRAMS

**Upper-Division Application Procedures.** Students should write to a college academic advisor for the application form well in advance of the application deadline. For more information on portfolios, ask for a copy of the *Portfolio Seminar*

brochure from a college academic advisor. The following dates and procedures are for students applying to 2013-2014 upper division programs.

**Upper-Division Application Deadlines.** The following dates and procedures apply to Industrial and Interior Design portfolio submission only. Information regarding portfolio submission for Graphic Design is listed separately.

**April 15, 2013.** Portfolio and application documents are due in the school office by 5 P.M.

**June 3, 2013.** The spring 2013 semester includes transfer course work, i.e., course work taken at an institution other than ASU. A student must submit his or her transcripts to the school no later than June 3. These transcripts may be unofficial copies. A second set of official transcripts must be sent to the university Undergraduate Admissions office. Application is not complete until the university receives official transcripts for transfer course work. For those transfer students whose academic term ends in June rather than May, this deadline may be extended upon the written request of the applicant.

**July 1, 2013.** Acceptance notices are mailed no later than July 1.

**March 17, 2013.** The application deadline for Graphic Design is March 17, 2013. In addition to the portfolio submission, Graphic Design requires an aptitude test, which is part of the application packet. Application packets can be obtained from the Academic Advising Office one month before the due date. Students may obtain their application results by contacting the academic coordinator for Graphic Design at the end of the first week of April. Acceptance notices are mailed to admitted students.

**Return of Letter of Acceptance.** A signed receipt of acceptance of admission must be received by the school by the date indicated on the Notice of Acceptance. Alternates may be accepted at a later date if space becomes available.

**Matriculation.** An accepted student is expected to begin his or her upper division professional program at the beginning of the immediate fall term. There is no spring admission to the upper division.

**Graphic Design Application Requirements.** Individual applicants are responsible for obtaining the Graphic Design Application Packet by visiting the College of Architecture and Environmental Design Academic Advising Office in ARCH 141. Application materials are submitted in a portfolio organized by the individual applicant. The student's name must be affixed to the outside, with completed materials appearing in the following order:

1. application to the Graphic Design upper division program;
2. "Commonly Asked Questions" form; and
3. the Graphic Design Aptitude Test.

The packet contains complete instructions for completing the standard test. This test requires the completion of five problems that are reviewed by the faculty and that become the portfolio of materials considered for admission to the upper division program.

**Industrial and Interior Design Portfolio Format**

**Requirements.** Each applicant is responsible for obtaining the following documents and including them in the portfolio. Application materials are submitted at one time in a presentation binder (portfolio) with plastic sleeves 8 1/2 x 11 format only. The student's name must be affixed to the outside. Items must appear in the following order:

*Page 1* The application form should be completely filled out with the first page visible. Application forms are available from the college Academic Advising Office.

*Page 2* The second page of the application should be visible.

*Page 3* Application Essay or Letter of Intent

*Page 4* All college transcripts for both ASU and transfer work should be included through the fall 2002 semester. Copies are acceptable. An academic advisor forwards 2003 ASU transcripts. Applicants wishing to transfer spring semester 2003 work are responsible for submitting these transcripts by June 3 so that they may be added to their portfolios. The student is also responsible for getting an official transfer transcript sent directly to the Office of the Registrar.)

*Page 5* A certificate of admission to ASU is necessary only for those students who have been newly admitted for fall 2003 and who are applying directly into an upper division program. The certificate is not required for students currently attending ASU.

*Filling Pages Usually from 6 to 20 (Sketches)* Students should present work sufficient to demonstrate the depth and breadth of their creative activity. This work should include (but is not limited to) examples of two and three dimensional design and graphics. Each project should be clearly identified (course, length of project, etc.), with a concise accompanying description of the assignment.

Students should obtain a portfolio requirements addendum for their major from the college's Academic Advising Office (ARCH 141), at the beginning of the academic year in which they intend to apply to the upper division program. Requirements or instructions indicated in the addendum for that academic year take precedence over any other printed material.

Students are encouraged to include additional materials, written or pictorial, that provide further evidence of skills and abilities and of the aptitude and commitment to the major. When any work submitted is not completely original, the source must be cited. When works of a team nature, the applicant's role should be clearly indicated. Original examples or slides must not be submitted. All examples must be photographs or other reproduction graphic media.

**Return of Portfolios.** Application documents (pages 1-5) remain the property of the College of Architecture and Environmental Design. However, the remainder of the portfolio is returned after the admissions review, provided the applicant encloses a self-addressed return mailer with sufficient prepaid postage. Portfolios may be claimed in person after July 2, 2003. If the applicant provides written permission, another person may claim the portfolio. After one year, unclaimed portfolios are discarded. While care is taken in

handling the portfolios, no liability for lost or damaged materials is assumed by the college or school.

**ADVISING**

Advising for the lower and upper division curricula is through a college academic advisor (ARCH 141).

**DEGREE REQUIREMENTS**

The Bachelor of Science in Design degree requires a minimum of 20 semester hours for a major in Graphic Design and Industrial Design and a minimum of 150 semester hours for a major in Interior Design. The program includes required field trip. Students are responsible for these additional costs. Foreign study opportunities are available for students. An internship is a required part of the program.

**Graphic Design**

The curriculum in Graphic Design is divided into a preprofessional (first year) and a professional program (second, third, and fourth years).

Preprofessional program	30
Professional program	90
Total	120

The lower division curriculum balances a foundation in academic subjects such as English, numeracy, and computer technology with design courses that include history and theory, as well as studio courses in drawing and design fundamentals as they relate to conceptual design. Students apply for entry into the professional program after fulfilling the first year School of Design core foundation courses. The upper division curriculum includes studio work in graphic design and its relationship to problem solving at multiple scales. Projects are intended to educate students to think critically as individuals and as team participants in small and large corporate facilities. A formal eight week summer internship is required in the professional program. The internship is coordinated by the faculty. Students intern in a variety of settings, including in-house corporate design, publication design, and advertising design agencies.

**General Studies Requirement.** The following curriculum includes sufficient approved course work to fulfill the General Studies requirement. See "General Studies" page 53, for requirements and a list of approved courses. Note that all three General Studies awareness areas are required. Consult an advisor for an approved list of courses.

**Graduation Requirements.** In addition to fulfilling college and major requirements for this professional degree, students must meet all university graduation and college degree requirements. See "University Graduation Requirements" page 79 and "College Degree Requirements" page 124.

**Graphic Design B.S.D.  
Preprofessional Program Requirements<sup>1</sup>**

**First Year**

<b>Fall</b>	
DSC 101 Design Art History	3
DSC 121 Design Principles	3

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ENG	First Year Composition	3
	or ENG 105 Advanced First Year Composition	3
	if qualified	
Elective <sup>2</sup>		3
MA elective <sup>2</sup>		3

Total ..... 15

### Spring

ARS 112	Art of the Western World II <i>HL HL</i>	3
DSC 12	Design Drawing	3
DSC 22	Design Principles II	3
ENG 02	First Year Composition	3
	or elective if ENG 05 is taken	3
PGS 101	Introduction to Psychology <i>SB</i>	3

Total ..... 15

Preprofessional program total ..... 30

<sup>1</sup> Transfer credits for the lower division program must be equivalent in both content and level of offering. Samples of studio work to be accepted for credit must be submitted for evaluation through the college's Academic Advising Office, ARCH 141. Most studio courses and some lecture courses are sequential. They must be taken in, and may be offered only during, the semester noted.

<sup>2</sup> A list of courses that fulfill design electives, general studies, and other electives is available from the college academic advisor.

### Graphic Design—B.S.D. Professional Program Requirements

#### Second Year

DSC 494	ST: Finding Purpose: Survival in Design	3
GRA 283	Letterform I	3
GRA 284	Visual Communication I	3
L elective <sup>2</sup>		3
SB elective <sup>2</sup>		3

Total ..... 15

#### Spring

GRA 286	Visual Communication II	3
GRA 287	Letterform II	3
Design elective <sup>2</sup>		3
CS elective		3
SQ, SG elective with laboratory I <sup>2</sup>		4

Total ..... 16

#### Third Year

GRA 345	Design Rhetoric I	3
GRA 383	Typography I	3
GRA 386	Visual Communication III	3
Electives		6

Total ..... 15

#### Spring

DSC 483	Pre-Internship Seminar	1
GRA 318	History of Graphic Design <i>HL</i>	3
GRA 385	Typography II	3
GRA 387	Visual Communication IV	3
C elective <sup>2</sup>		3
Upper division design elective		3

Total ..... 16

### Summer

DSC 484	Internship	3
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Total ..... 3

### Fourth Year

#### Fall

GRA 485	Visual Communication V	3
GRA 494	ST: Graphic Design	3
SQ, SG elective with laboratory II <sup>2</sup>		4
Upper division design elective <sup>2</sup>		3

Total ..... 3

#### Spring

GRA 482	Visual Communication V	3
GRA 494	ST: Graphic Design	3
Elective		3
Upper division elective <sup>2</sup>		3

Total ..... 12

Professional program total ..... 90

B.S.D. minimum total ..... 120

Transfer credits for the lower division program must be equivalent in both content and level of offering. Samples of studio work to be accepted for credit must be submitted for evaluation through the college's Academic Advising Office, ARCH 141. Most studio courses and some lecture courses are sequential. They must be taken in, and may be offered only during, the semester noted.

<sup>2</sup> A list of courses that fulfill design electives, general studies, and other electives is available from the college academic advisor.

### Industrial Design

The curriculum in Industrial Design is divided into a preprofessional first and second years and a professional program third and fourth years.

Preprofessional program ..... 61

Professional program ..... 59

Total ..... 120

The preprofessional curriculum balances a foundation in academic subjects such as English, algebra and trigonometry, computing, and physics with departmental courses that include history as well as studio courses in drawing, design fundamentals, human factors, and materials and processes.

The professional curriculum includes studio and laboratory work in industrial design, graphics, project development, and professional practice. Students also take a number of approved program electives. A supervised summer internship is part of the curriculum.

Upper division studios emphasize projects that promote an interdisciplinary approach to solving problems and that develop the student's intellectual understanding of the philosophy, methodology, and theories related to industrial design. Problems proceed from small consumer products with simple task functions to larger and more complex problems and systems. Studio projects also emphasize the design processes, problem resolution through concept ideation, dialogue with specialists in related areas, and product development, presentation, and marketing.

Graduates of the program accept positions in industry and with firms involved in industrial design. Designers may focus on consumer products, transportation, electronics,

medical devices, health products, or recreational products, among others. Designers may also choose to continue their education with graduate studies to enrich their design knowledge, to specialize, or to prepare for college level teaching.

**General Studies Requirement.** The following curriculum includes sufficient approved course work to fulfill the General Studies requirement. See "General Studies" page 83, for requirements and a list of approved courses. Note that all three General Studies awareness areas are required. Consult an advisor for an approved list of courses.

**Graduation Requirements.** In addition to fulfilling college and major requirements students must meet all university graduation and college degree requirements. See "University Graduation Requirements" page 79, and "College Degree Requirements," page 124.

#### Industrial Design B.S.D. Preprofessional Program Requirements

##### First Year

##### Fall

DSC 101	Design Awareness <i>HU G</i>	3
DSC 121	Design Principles I	3
ENG 101	First Year Composition	3
	or ENG 105 Advanced First Year Composition 3 if qualified	
MAT 170	Precalculus <i>MA</i>	3
Elective		3
<b>Total</b>		<b>15</b>

##### Spring

DSC 120	Design Drawing	3
DSC 122	Design Principles II	3
ENG 102	First Year Composition	3
	or elective if ENG 105 is taken 3	
PGS 101	Introduction to Psychology <i>SB</i>	3
PHY 111	General Physics <i>SQ</i>	3
PHY 113	General Physics Laboratory <i>SQ</i> <sup>2</sup>	1
<b>Total</b>		<b>16</b>

##### Second Year

##### Fall

DSC 236	Introduction to Computer Modeling <i>CS</i>	3
IND 227	Visual Methods for Problem Solving	3
IND 242	Materials and Design	3
IND 260	Industrial Design I	3
IND 316	20th Century Design I <i>HU H</i>	3
<b>Total</b>		<b>15</b>

##### Spring

ECN 112	Microeconomic Principles <i>SB</i>	3
IND 228	Imaging and Visualization	3
IND 243	Process and Design	3
IND 261	Industrial Design II	3

IND 317	20th Century Design II <i>HU H</i>	3
<b>Total</b>		<b>15</b>
<b>Professional program total</b>		<b>61</b>

<sup>1</sup> Transfer credits for the lower division program must be equivalent in both content and level of offering. Samples of studio work must be provided for evaluation. See a college academic advisor for an appointment.

<sup>2</sup> Both PHY 111 and 113 must be taken to secure SQ credit.

#### Industrial Design B.S.D. Professional Program Requirements

##### Third Year

##### Fall

DSC 444	Human Factors in Design	3
IND 322	Presentation Graphics	3
IND 354	Principles of Product Design	3
IND 360	Industrial Design III	5
<b>Total</b>		<b>14</b>

##### Spring

IND 325	Graphics for Industrial Design	3
IND 361	Industrial Design IV	5
MKT 300	Principles of Marketing	3
Elective		3
<b>Total</b>		<b>14</b>

##### Summer

DSC 454	Internship	2
<b>Total</b>		<b>2</b>

##### Fourth Year

##### Fall

ENG 501	Writing for the Professions <i>L</i>	3
IND 460	Design Project I	5
IND 470	Professional Practice for Industrial Design <i>L</i>	3
Elective		3
<b>Total</b>		<b>14</b>

##### Spring

IND 461	Design Project II	5
Elective		3
Elective		3
SQ, SQ Elective with approved laboratory		4
<b>Total</b>		<b>15</b>
<b>Professional program total</b>		<b>59</b>
<b>B.S.D. minimum total</b>		<b>120</b>

#### MINOR

##### Design Studies

The minor in Design Studies is available to students interested in design courses but who do not wish to major in graphic, industrial, or interior design. The courses are designed to appeal especially to students who have not been accepted to the upper division of graphic, industrial, or interior design but who wish to pursue the study of design within the Bachelor of Interdisciplinary Studies degree.

*L* literacy and critical inquiry *MA* mathematics *CS* computer statistics qualitative approach *HU* humanities and aesthetic *SB* social and behavioral science *SG* natural science—general science courses *SQ* natural science—quantitative *C* cultural diversity in the United States *G* global history. See the Design Studies page 83.

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The selected courses satisfy the minimum requirement (18 semester hours) for the minor. Furthermore, 12 semester hours must be taken in upper division course work. To enhance understanding of the subject matter, some of the selected courses are sequential in nature and require certain prerequisites; or sequentially, students should carefully note the semester in which these particular courses are offered. All courses are non-studio courses.

### Designated Courses for the Minor

#### Graphic Design

DSC 344 Human Factors in Design	3
GRA 318 History of Graphic Design <i>HL</i>	3

#### Industrial Design

IND 242 Materials and Design	3
IND 243 Process and Design	3
IND 316 20th Century Design I <i>HL, H</i>	3
IND 317 20th Century Design II <i>HL, H</i>	3
IND 354 Principles of Product Design	3
IND 47 Professional Practice for Industrial Design <i>L</i>	3
IND 474 Design Seminar	3

#### Interior Design

INT 225 Interior Design Issues and Theories <i>HL</i>	3
INT 235 User Needs and Behavior in Interior Design	3
INT 310 History of Interior Design I <i>HL, H</i>	3
INT 311 History of Interior Design II <i>HL, H</i>	3
INT 34 Interior Materials and Finishes	3
INT 366 Construction Methods in Interior Design	3
INT 42 History of Decorative Art in Interior <i>HL</i>	3
INT 413 History of Textiles in Interior Design	3
INT 442 Specifications and Documents for Interiors <i>L</i>	3
INT 455 Environmental Control Systems	3
INT 457 Acoustics for Interior Design	3
INT 458 Lighting for Interior Design	3
INT 472 Professional Practice for Interior Design	3

The minor in Design Studies is open to all students of the university. It is especially suited to students pursuing the Bachelor of Interdisciplinary Studies degree. To pursue the minor in Design Studies, students must have a minimum cumulative GPA of 2.50.

#### Interior Design

The curriculum in Interior Design is divided into a pre-professional program (first and second year) and a professional program (third, fourth, and fifth years).

Preprofessional program	55
Professional program	95
Total	150

The preprofessional curriculum balances a foundation in academic subjects such as English, algebra and trigonometry, computer technology, and physics with departmental courses that include history and theory, as well as studio courses in drawing, design fundamentals, and conceptual design.

The professional curriculum includes studio work in interior design, furniture design, construction methods, structures, codes as related to materials and finishes, human factors, environmental control systems, as well as lecture courses in the history of interior design, decorative arts, and textiles. An eight-week supervised summer internship is part of the curriculum. The fifth year is an interdisciplinary

year in which students address real-life environmental problems. This final year is a capstone experience that utilizes all previous learning within and outside the professional program. The student's final design project is completed in consultation with a member of the local professional community.

Graduates from the program accept entry-level professional positions in a variety of settings, including interior design firms, departments of space planning, architectural firms, public institutions, and industry. Students may also choose to continue their education through graduate studies, which offer greater enrichment in studio disciplines and which contribute to the possibility for postsecondary-level academic appointments giving the recipients highly sought after academic credentials.

**General Studies Requirement.** The following curriculum includes sufficient approved course work to fulfill the General Studies requirement. See "General Studies" page 83, for requirements and a list of approved courses. Note that all three General Studies awareness areas are required. Consult with your advisor for an approved list of courses.

**Graduation Requirements.** In addition to fulfilling college and major requirements, students must meet all university graduation and college degree requirements. See "University Graduation Requirements" page 79, and "College Degree Requirements," page 124.

### Interior Design—B.S.D. Preprofessional Program Requirements

#### First Year

##### Fall

DSC 101 Design Awareness <i>HL, G</i>	3
DSC 121 Design Principles I	3
ENG 111 First Year Composition	3
or ENG 115 Advanced First Year Composition 3	
if qualified	

MAT 70 Precalculus <i>MA</i>	3
Elective	3

Total 15

##### Spring

DSC 123 Design Drawing	3
DSC 122 Design Principles II	3
ENG 112 First Year Composition	3
or electve if ENG 115 is taken 3	

PHY 111 General Physics <i>SQ</i>	3
PHY 112 General Physics Laboratory <i>SQ</i>	1
SB elective	3

Total 16

#### Second Year

##### Fall

DSC 236 Introduction to Computer Modeling <i>CS</i>	3
INT 194 ST: Drafting for Interior Design	3
INT 225 Interior Design Issues and Theories <i>HL</i>	3
INT 235 User Needs and Behavior in Interior Design	3

Total 12

##### Spring

ARS 122 Art of the Western World <i>HL, H</i>	3
INT 222 Material Design Development	3
INT 231 Concepts for Interior Design	3



Elective .....	3
Total .....	2
Preprofessional program total .....	55

Transfer credits for the lower division program must be equivalent in both content and level of offering. Samples of student work must be provided for evaluation. See a college academic adviser for an appointment.

Both PHY 111 and 113 must be taken to secure SQ credit

### Interior Design B.S.D. Professional Program Requirements

#### Third Year

<b>Fall</b>		
DSC 444	Human Factors in Design .....	3
INT 310	History of Interior Design I <i>HL, H</i> .....	3
INT 340	Interior Codes, Public Welfare and Safety .....	3
INT 364	Interior Design Studio I .....	5
INT 366	Construction Methods in Interior Design .....	3
Total .....		17

<b>Spring</b>		
DSC 483	Preinternship Seminar .....	
INT 311	History of Interior Design II <i>HL, H</i> .....	3
INT 341	Interior Materials and Finishes .....	3
INT 365	Interior Design Studio II .....	5
INT 455	Environmental Control System .....	3
Total .....		15

<b>Summer</b>		
DSC 484	Internship .....	5
Total .....		3

#### Fourth Year

<b>Fall</b>		
INT 412	History of Decorative Arts in Interiors <i>HL</i> .....	3
INT 442	Specifications and Documents for Interiors <i>L</i> .....	3
INT 457	Acoustics for Interior Design .....	3
INT 464	Interior Design Studio III .....	5
Elective .....		3
Total .....		17

<b>Spring</b>		
INT 413	History of Textiles in Interior Design .....	3
INT 458	Lighting for Interior Design .....	3
INT 465	Interior Design Studio IV .....	5
Natural science elective with laboratory .....		4
Total .....		15

#### Fifth Year\*

<b>Fall</b>		
INT 422	Facilities Planning and Management I .....	3
INT 446	Furniture Design and Production .....	3
INT 466	Interior Design Studio V .....	5
SB and C elective .....		5
Total .....		14

<b>Spring</b>		
INT 423	Facilities Planning and Management II .....	3
INT 467	Interior Design Studio V .....	5
INT 472	Professional Practice for Interior Design .....	3

Elective .....	3
Total .....	14
Preprofessional program total .....	95
B.S.D. minimum total .....	150

See "Fifth Year," below.

**Fifth Year.** During the fifth year, the student concentrates on research and application of that research related to the development of a comprehensive project. This year is self-directed in nature and prepares the student for independent thinking and creative problem solving. The fifth year experience promotes high expectations for producing professional work that represents the culmination of the professional academic experience. It should be noted that the fifth year studio sequence is designed to draw majors from the upper division programs of industrial design, graphic design, and architecture, thus furthering a real life interdisciplinary problem solving experience.

### MINOR

#### Interior Design History

The minor in Interior Design History is available to students interested in design and culture. The courses designed for the minor are part of the professional studies in interior design within the School of Design. Moreover, the courses serve to inform the students about the importance of the global community, especially sociocultural groups, and the impact of the global community on the design of the interior environment.

The selected courses satisfy the minimum requirement 18 semester hours for the minor. To enhance the understanding of the subject matter, the selected courses are sequential in nature and require certain prerequisites. Consequently, students should carefully note the semester in which any of these courses is offered.

#### Required Courses

DSC 444	Human Awareness <i>HL, G</i> .....	3
INT 323	Interior Design Issues and Theories <i>HL</i> .....	3
INT 310	History of Interior Design I <i>HL, H</i> .....	3
INT 311	History of Interior Design II <i>HL, H</i> .....	3
INT 412	History of Decorative Arts in Interiors <i>HL</i> .....	3
INT 413	History of Textiles in Interior Design .....	3
Total .....		18

The minor in Interior Design History is open to students majoring in Architectural Studies, Art, Communication, Psychology, or Sociology and students in any College of Business major or the Bachelor of Interdisciplinary Studies program. All other majors are considered on an individual basis and approved by the coordinators of the Interior Design program within the School of Design. To pursue the minor in Interior Design History, students must have a minimum cumulative GPA of 2.50.

**L**iteracy and critical inquiry **MA** thematic **CS** computer statistics  
**q**uantitative application **HU** human and fine art **SB** social and  
 behavioral science **SG** natural science—geography and resources **SQ** natural  
 science quantitative **C**ultural design in the United States **G**lobal  
**H**istorical See General Studies page 83

## COLLEGE OF ARCHITECTURE AND ENVIRONMENTAL DESIGN

### DESIGN (DSC)

#### DSC 100 Introduction to Environmental Design. (3)

*fa and spring*

Survey of environmental design includes historic examples and the theoretical, social, technical and environmental forces that shape them. Cross-listed as APH 100 PUP 100. Credit is allowed for only APH 100 or DSC 100. P P 100

*General Studies H G H*

#### DSC 101 Design Awareness. (3)

*fa*

Survey of cultural, global, and historical context for the design professions.

*General Studies H G*

#### DSC 120 Design Drawing. (3)

*spring*

Drawing as a language to explore and communicate ideas. Development of drawing aptitude as a language and process for design thinking. 1-hour lecture, 5-hour studio.

#### DSC 121 Design Principles I. (3)

*fa*

Design as a language and process for creative thinking and realization. 1-hour lecture, 5-hour studio. Prerequisite: major in the College of Architecture and Environmental Design.

#### DSC 122 Design Principles II. (3)

*spring*

Continued exploration of design as a language and process for creative thinking and realization. 1-hour lecture, 5-hour studio. Prerequisite: DSC 121.

#### DSC 236 Introduction to Computer Modeling. (3)

*fa and spring*

Computers in design: understanding software concepts, specific packages, and problem-solving strategies. Typography, modeling, and animation. Lab. Prerequisite: Design major.

*General Studies CS*

#### DSC 344 Human Factors in Design. (3)

*fa*

Man-machine environment systems: human characteristics and behavior applied to design of products, systems, and their operating environment.

#### DSC 483 Preinternship Seminar. (1)

*spring*

Preparation of internship materials that produce and enhance a successful internship experience. Seminar. Prerequisite: 3rd-year major in the School of Design.

#### DSC 484 Internship. (1-3)

*summer*

Full-time summer internship under supervision of practitioner in the Phoenix area or other locales. Prerequisite: instructor approval.

#### DSC 494 Special Topics. (1-4)

*fa and spring*

Topics may include the following:

- Finding Purpose: Surviving in Design 3

#### DSC 500 Research Methods. (1-12)

*selected semesters*

Fee

#### DSC 520 Contemporary Design Issues. (3)

*fa and spring*

Projected applications in design production, planning, and decision-making processes. Lecture-seminar. Prerequisite: NT 310 and 311 or the equivalent.

#### DSC 524 Illumination and Acoustics. (3)

*selected semesters*

Research and laboratory investigation of advanced illumination and acoustic issues of facility design. Emphasizes human factors and performance aspects. Prerequisites: NT 457 and 458 or the equivalent.

#### DSC 525 Design Methodologies. (3)

*fa*

Practical exercises and studies in problem-solving strategies, problem definition, and supporting theory for the designer. Lecture-seminar. Fee. Prerequisite: senior or co-graduate standing.

#### DSC 527 Modern Design Theory. (3)

*spring*

Architectural, economic, and social theories that have shaped modern design theory as the basis for design philosophies. Lecture-seminar. Prerequisite: DSC 525 or the equivalent.

#### DSC 529 Design Criticism. (3)

*fa*

Critical methods applied to design as material, culture, and human expression, evaluation of achievement versus intention. Lecture-seminar. Prerequisite: DSC 527 or the equivalent.

#### DSC 544 Human Factors Systems and Documentation. (3)

*fa*

Advanced topics associated with theory and methods of human factors in design. Individual projects stress problem organization, evaluation, and documentation. Lecture-seminar. Lab. Prerequisite: DSC 344 or the equivalent.

#### DSC 552 Computer Simulation in Design. (3)

*fa*

Use of computer graphics as a medium to develop and present images of the environment for analysis and perception. Lecture-lab. Prerequisite: senior or graduate standing.

#### DSC 553 Computer Imaging and Visual Perception. (3)

*spring*

Use and applications of computer simulation as a tool for design and testing human interface with the environment. Lecture-lab. Prerequisite: senior or graduate standing.

#### DSC 558 Daylighting. (3)

*selected semesters*

Daylighting as a design determinant: concepts, techniques, methodology, experiments, and case studies. Lecture-studio. Prerequisite: senior or graduate standing.

#### DSC 580 Practicum: Methods of Teaching Design. (3)

*fa*

Background and development of design education theories. Concepts of student teaching methods. Comprehensive student project development and evaluation methods. Prerequisite: graduate standing.

#### DSC 592 Research. (1-12)

*selected semesters*

#### DSC 593 Applied Project. (1-12)

*selected semesters*

Fee

#### DSC 598 Special Topics. (1-4)

*selected semesters*

Topics may include the following:

- Facilities Planning

Fee

#### DSC 599 Thesis. (1-12)

*selected semesters*

Fee

**Omnibus Courses.** For an explanation of courses offered but not specified, see the catalog section on Omnibus Courses, page 56.

## ENVIRONMENTAL DESIGN AND PLANNING (EPD)

See the *Graduate Catalog* for the EPD courses.

## GRAPHIC DESIGN (GRA)

#### GRA 283 Letterform I. (3)

*fa*

Drawing letterforms with focus on proportion and structure. Introduces letterform nomenclature and classification. 6 hours a week. Fee. Prerequisite: DSC 122 acceptable into Graphic Design profile or a program.

#### GRA 284 Visual Communication I. (3)

*fa*

Theoretical and applied studies in shape, drawing, and color. 6 hours a week. Fee. Prerequisite: GRA 283.

**GRA 286 Visual Communication II. (3)***spr ng*

Transition from theoretical to applied problems. Emphasizes refinement of visual skills. 6 hours a week. Fee. Prerequisites: GRA 284 acceptance into Graphic Design professional program. Corequisite: GRA 287.

**GRA 287 Letterform I. (3)***spr ng*

Continuation of GRA 283 with emphasis on lowercase letters, baselines of pen writing and font design. 6 hours per week. Fee. Prerequisites: GRA 284 acceptance into Graphic Design professional program. Corequisite: GRA 286.

**GRA 318 History of Graphic Design. (3)***fa*

Surveys development in the graphic arts. Innovative printing methods, aesthetic values, and social and cultural environments that shape them.

*General Studies HU***GRA 345 Design Rhetoric. (3)***fa and spr ng*

Develops critical thinking and expression of ideas in concise and persuasive written and spoken form. Prerequisites: ENG 101-102. *General Studies L*

**GRA 382 Graphic Representation. (3)***fa*

Studio practice in drawing with an application toward graphic communication. 6 hours a week. May be repeated once for credit. Fee. Prerequisite: GRA 284.

**GRA 383 Typography I. (3)***fa*

Theoretical exercises in spatial and textural qualities of type. Problems in tension, activation, and balance. Exercises in simple typography and applications. 6 hours a week. Fee. Prerequisites: GRA 286-287. Corequisite: GRA 386.

**GRA 385 Typography II. (3)***spr ng*

Problems in composition, choice, and combinations of typefaces for mats, and the application to a variety of design projects. 6 hours a week. Fee. Prerequisite: GRA 383. Corequisite: GRA 387.

**GRA 386 Visual Communication III. (3)***fa*

Problems in specific design applications such as poster, packaging, publications. Emphasizes development of concepts in visual communication. 6 hours a week. Fee. Prerequisites: GRA 286-287. Corequisite: GRA 383.

**GRA 387 Visual Communication IV. (3)***spr ng*

Client-oriented projects. Multifaceted problems with emphases on continuity of design in more than one medium and format. 6 hours a week. Fee. Prerequisites: GRA 383-386. Corequisite: GRA 385.

**GRA 481 Visual Communication V. (3)***fa*

Studio problems with emphasis on analysis, problem solving, and professional portfolio preparation. 6 hours a week. Fee. Prerequisites: GRA 385-387.

**GRA 482 Visual Communication VI. (3)***spr ng*

Individual and group projects with outside clients. All projects culminate in an exhibit. 6 hours a week. Fee. Prerequisite: GRA 481.

**GRA 485 Graphic Design Workshop. (3)***selected semesters*

Preprofessional concentration studios from concept to printed work. Studio workshop and internships for selected students. 6 hours a week. May be repeated once for credit. Fee. Prerequisite: instructor approval.

**GRA 494 Special Topics. (1–4)***fa and spr ng*

Topics may include the following:

- Graphic Design 3

**Omnibus Courses.** For an explanation of courses offered but not specifically listed in this catalog, see Omnibus Courses, page 56.

**INDUSTRIAL DESIGN (IND)****IND 194 Special Topics. (1–4)***spr ng*

Topics may include the following:

- Drafting for Industrial Design 3
- Applied mechanical drafting knowledge and skills. Manual drafting principles and techniques with transition to computer-aided industrial design.

**IND 227 Visual Methods for Problem Solving. (3)***fa*

Introduces conceptual design activity based on the mind/eye-mediated feedback loop. Graphic language used to represent conjecture, analysis, synthesis of objects and their contexts. Seminar. Studio. Prerequisite: DSC 122.

**IND 228 Imaging and Visualization. (3)***spr ng*

Design activities stressing graphic language abstraction practiced for presentation. Discusses structure of criticism, including description, interpretation, and evaluation. Seminar. Studio. Prerequisite: IND 227.

**IND 242 Materials and Design. (3)***fa*

Material application in design. Introduces characteristics and properties of metals and organic materials including plastics and nonorganic materials.

**IND 243 Process and Design. (3)***spr ng*

Influences of industrial processing on design. Introduces basic material processing and post-forming processes. Emphasizes appearance enhancement and design constraints of material processing. Prerequisite: IND 242.

**IND 260 Industrial Design I. (3)***fa*

Introduces the method and process of the industrial designer. Determines necessary minimum product design. 1-hour lecture, 2 hours studio. Prerequisite: DSC 122.

**IND 261 Industrial Design II. (3)***spr ng*

Issues of physical form development related to product and design form development properties of paper, fiber, wood, metal, and plastics. 1-hour lecture, 2 hours studio. Prerequisite: IND 260 or its equivalent.

**IND 316 20th-Century Design I. (3)***fa*

Modern European and American design from 1900 to 1940. Emphasizes transportation, product, furniture, exhibit, and graphic design. *General Studies HU H*

**IND 317 20th-Century Design II. (3)***spr ng*

Modern European, Asian, and American design since 1940. Emphasizes transportation, product, furniture, exhibit, and graphic design. *General Studies HU H*

**IND 327 Presentation Graphics. (3)***fa*

Studies methods for portfolio and professional product presentation using graphic media for information transfer. Stresses aesthetic judgment, organization, and craftsmanship. Seminar, studio. Prerequisite: IND 228.

**IND 328 Graphics for Industrial Design. (3)***spr ng*

Investigates and applies packaging applications and planning to the development of a product line structured as a system. Lab. Prerequisite: IND 327.

**IND 354 Principles of Product Design. (3)***fa*

Influences of physical and mechanical concepts in product design mechanisms, kinematics, and fastening systems. Concepts of

**L**iteracy and literacy **MA** mathematics **CS** computer statistics **Q**ualitative application **HU** humanities and fine arts **SB** social and behavioral sciences **SG** natural and general core courses **SQ** natural science **Q**uantitative **C**ultural diversity in the United States **G**lobal **H**istory. See *General Studies*, page 83.

## COLLEGE OF ARCHITECTURE AND ENVIRONMENTAL DESIGN

a a y s s f r p o d c t d e g n n f u e n c e s o f o n e p t n a e s t h e t c s P r e r e q u i s i t e P H Y 111

### IND 360 Industrial Design II. (5)

fa

Method f v s u a t h n k n g c o n c e p t u a z a t o n, a d d e a t r e a t e d t o b u d n g s k e v e s n p r f e s s n a d e s g n p r e s e n t a t o n t e h n q u e s 10 h o u r t u d o F e e P r e r e q u i s i t e s c h o a p p r o v a .

### IND 361 Industrial Design IV. (5)

spr ng

E m p h a s i s d e v e o p n g d e a s i n t o a c o m p e t e f u t o n a p r o d u t n i n d u g s u r v e y a n d a p p c a t o n o f a e s t h e t c s h m a n f a c t o s m a t e r a s, a n d m a n u f a c t u r n g 10 h o u r s t d F e e P e r e q u i s i t e N D 360

### IND 460 Design Project I. (5)

fa

C m p e t e a a y o f t h e p r o d u c t u n t a s a n e e m e n t o f m a s p r o d u c t o n f a t u r n g m a r k e t n g t e h n o g y h u m a n f o r a n d v s a d e s g n E m p h a s i s p r o f e s s o n a s t a n d a r d s 10 h o u r t u d o F e e P r e r e q u i s i t e s D S C 484 N D 361

### IND 461 Design Project II. (5)

spr ng

P r o d c t d e s g n w i t e m p a n s y s t e m i n t e r a c t i o n C u m n a t i o n o f d e s g n p r c e s a d t e c h n q u e E n c o u r a g e n d v d u a p r o e t d r e c t 10 h o u r s t u d o F e e P r e r e q u i s i t e N D 361

### IND 470 Professional Practice for Industrial Design. (3)

fa

B u s n e s p r e d r e s m a n a g e m e n t t e h n q u e s, a c o u n t n g s y s t e m s, e t h c, a d e g a r e s p o n s b l e o f t h e d e s g n p r o f e s s i o n M a y b e r e p e a t e d f o r c e d t P r e r e q u i s i t e e n r t a n d n g G e n e r a l S t u d e s L

### IND 474 Design Seminar. (3)

spr ng

M a n u f a c t u r e r s a b i l i t y s t a t u t e r e g t o n s a n d c o m m n a w r u e r e o f e x p e r t w r n e s s n s u r a n c e a n d p r d u t s a f e t y p r o g r a m S e m i n a r P r e r e q u i s i t e s e n o r s t a n n g

### IND 494 Special Topics (3)

selected semesters

A p p e s m e h a n c a d r a f t n g k n o w e d g e a d k M a n u a l d r a f t n g p r n p e s n d t e c h n q u e s w i t h t a s t t o c o m p u t e r a d e d n d u s t a d e s g n

**Omnibus Courses.** For an explanation of courses offered but not specified, see Omnibus Course page 56

## INTERIOR DESIGN (INT)

### INT 194 Special Topics (1-4)

fa

T p c s m a y n c l u d e t h e f o l l o w n g  
• D r a f t g f o r i n t e r r d e s g n 3

### INT 220 Media for Design Development. (3)

spr ng

G r a p h c r e p r e s e n t a t o n m e t h o d s s e d t o d e s b e a n d a n a y z e p a c e e m p h a s e q u i c k p r e s e n t a t o t e n q u e 6 h o u r t u d o P r e r e q u i s i t e D S C 122

### INT 223 Interior Design Issues and Theories. (3)

fa

I n t e r o r s s u e t h e o r e s a n d p h i l o s o p h e E m p h a s i s u n q u e o c a a n d c u t u r a f a c t o r s t h a t s h a p e 20 t h c e n t u r y d e s g n c o n c e p t s G e n e r a l S t u d e s H U

### INT 231 Concepts for Interior Design. (3)

spr ng

C o n c e p t u a d e g d e v e p m e n t n c u d n g s c a e a d p r o p o r t o n g h t t e x t u r e f o r m v o l u m e a n d s p a t a h e r a c h y p a s a g e a n d r e p o s e 10 h o u r e c t u r e 4 h o u s a b P r e r e q u i s i t e D S C 16

### INT 235 User Needs and Behavior in Interior Design. (3)

fa

A p p e s c o n c e p t u a d e s g n t o s u e s o f p o g r a m m n g a n d p a c e p a n n g u s e r n e e d s a n d b e a v o r 10 h o u r e c t u r e 4 h o u s a b P r e r e q u i s i t e D S C 12

### INT 310 History of Interior Design I. (3)

fa

D e s g n o f i n t e r o r s p a c e s a s a n e x p r e s s i o n o f c u t u r a n f u e n c e t o 1835.

General Studies HU H

### INT 311 History of Interior Design II. (3)

spr ng

D e s g n o f i n t e r o r s a n e x p r e s s i o n o f c u t u r a n f u e n c e f r o m 1835 t o t h e p r e s e n t P r e r e q u i s i t e N T 310 o r n s t r c t a p p r v a G e n e r a l S t u d e s H U H

### INT 340 Interior Codes: Public Welfare and Safety. (3)

fa

C o d e s a d r e g u a t o n s a s p e r f o r m a n e c r i t e r a f o r i n t e r r d e s g n C o r e q u i s i t e N T 366

### INT 341 Interior Materials and Finishes. (3)

spr ng

G e n e r a l a n a y f q u a l i t y o n t r m e a s u r e s r e a t n g t o i n t e r o r d e s g n a t e r a f n i s h e s a n d p e r f o r m a n e c r i t e r a P r e r e q u i s i t e s N T 340 366

### INT 364 Interior Design Studio I. (5)

fa

S t d p r o b l e m s i n i n t e r o r d e s g n r e a t e d t o b e h a v o r a r e s p o n s e p e r s o n a a n d m a g r o u p s p a c e 10 h o u s t u d o F e e P r e r e q u i s i t e s c h o o a p p r o v a

### INT 365 Interior Design Studio II. (5)

spr ng

S t u d o p r o b l e m s i n i n t e r o r d e s g n w i t e m p h a s i s o n i s s u e s o f p u b c a n d p r v t e u s e o f i n t e r o r p a e s f a s s e m b l y 10 h o u s t u d o F e e P r e r e q u i s i t e N T 364

### INT 366 Construction Methods in Interior Design. (3)

fa

D e s g n t h e o r y e a t e d t o a n a y s m a t e a s a n d b u d n g t e c h n q u e s o f h r z o n t a a n d v e r t a c o n s t r u c t o n i n t e r o r d e s g n L e t u r e f e d t r p s C o r e q u i s i t e N T 34

### INT 412 History of Decorative Arts in Interiors (3)

fa

D e s g n o f d e c o r a t i v e a r t s a s a n e x p r e s s i o n o f c u t u r a n f u e n c e s a n d a s a e x t e n s i o n o f i n t e r o r s p a c e s P r e r e q u i s i t e N 311 o r n s t r u c t o r a p p r o v a G e n e r a l S t u d e s H U

### INT 413 History of Textiles in Interior Design (3)

spr ng

C u t u r a a d h s t o r c a e x p r e s s i o n o f t e x t e s a s r e a t e d t o i n t e r o r s P r e f e d t r p s P r e r e q u i s i t e N T 412 o r n s t r u c t o r a p p r o v a

### INT 422 Facilities Planning and Management I. (3)

fa

F a c i l i t y m a n a g e m e n t p r o c e s s n a r g e s c a l e o r g a n z a t i o n s P a n n n g o n g r a n g e f o r e c a s t n g a n d p r o d u c t v i t y P r o j e c t m a n a g e m e n t m e t h o d o g e s u s g m c r o b a e d s o f t w a r e p r o g r a m P r e r e q u i s i t e s e n o r s t n d n g

### INT 423 Facilities Planning and Management II. (3)

spr ng

F o r m a t i o n o f f a c i l i t y p o e p r o c e d u r e s a n s t a n d a r d s F a c i l i t y d a t a b a s e p a c e a o a t o n s a n d m a n a g e m e n t p r e s s E v a u a t o n o f p r o g r a m m n g r t e r a P r e r e q u i s i t e s N T 422 e n o r s t n d n g

### INT 442 Specifications and Documents for Interiors. (3)

fa

C o t r a t s p e f i c a t i o n d o c u m e n t s s h e d u e a n d b o d n g p r o c e d u r e s f o r i n t e r o r d e s g n P r e r e q u i s i t e s N 341 365 G e n e r a l S t u d e s

### INT 446 Furniture Design and Production. (3)

fa

D e s g n c o n s t r u c t o c o s t e t m a t n g a n d i n s t a t o n n t e r o r f u r n i t u e a n d m o r k 10 h o u r e c t u r e 4 h o u s t u d o

### INT 455 Environmental Control Systems. (3)

spr ng

S u r v e y e n v i r o n m e n t a l c o n t r o l s y s t e m s a n d t h e r a p p c a t i o n i n t h e d e s g n o f b u d n g i n t e r o r s e t r e f e d t r p s P r e r e q u i s i t e s M A T 117 170 P H Y 111 113 j u n o r s t a n d n g

### INT 457 Acoustics for Interior Design. (3)

fa

P h y s a p o p e r t e s o f r i d t u d e s p e r t a n n g t o s o u n d a b o r b n g m a t e r a c o n s t r u c t i o n s a n d r o m a o u s t P r e r e q u i s i t e s M A T 170 P H Y 111 113

### INT 458 Lighting for Interior Design. (3)

spr ng

L i g h t a s a n a s p e c t o f i n t e r o r d e s g n E v a u a t o n o f l i g h t s o u r c e s f o r d i s t r i b u t i o n c o o r a n d s t

**INT 464 Interior Design Studio III. (5)**

*fall*

Studio problems in interior design related to commercial spaces. 10 hours studio Fee Prerequisites DSC 484 INT 365

**INT 465 Interior Design Studio IV. (5)**

*spring*

Studio problems in interior design related to health and educational facilities. 10 hours studio Fee Prerequisite INT 464

**INT 466 Interior Design Studio V. (5)**

*fall*

Advanced interior design problem solving design theory and criticalicism. Thesis project development based upon the major's concentration. 10 hours studio Fee Prerequisite school approval

**INT 467 Interior Design Studio VI. (5)**

*spring*

Advanced series of specialized projects for continuation of the project based upon the major's concentration. 10 hours studio Fee Prerequisite school approval

**INT 472 Professional Practice for Interior Design. (3)**

*spring*

Business procedures, project control fees, structures and professional product ability

**Omnibus Courses.** For an explanation of courses offered but not specifically listed in this catalog, see Omnibus Courses page 56

## School of Planning and Landscape Architecture

www.asu.edu/caed/planning

480 965-7167

AED 158A

**Professors:** Khl, Lai Mushkate Pjawka

**Associate Professors:** Cameron, Cook, Guhathakurta, K.m, McSherry Yabes

**Assistant Professors:** Crewe, Ewan, Fish Ewan Larsen Musacch o

**Faculty Associates:** Abele, Cafarella, Do n Fry Gammage, Ho way

### PURPOSE

The faculty in the School of Planning and Landscape Architecture offer curricula that provide an education for careers in environmental planning, housing and urban development, landscape architecture, urban and regional planning, and urban design. The goal of the faculty is to advance the professions of planning and landscape architecture through scholarship, teaching, research, and community service.

Planners and landscape architects work on projects that range in scale from site and landscape development to the design of entire communities and the formulation of policies that shape urban and regional growth. Planning and landscape architecture graduates work for private firms and government agencies. Their work typically involves fields such as land use planning, housing, natural resource man-

agement, urban transportation, development controls, and environmental impact assessment.

### ORGANIZATION

The programs are organized by the faculty of the school under the direction and administration of the program coordinators and the school director.

### DEGREES

The faculty in the School of Planning and Landscape Architecture offer the Bachelor of Science in Planning degree in Urban Planning, Bachelor of Science in Landscape Architecture degree, and Bachelor of Science in Design degree in Housing and Urban Development.

#### Bachelor of Science in Planning (B.S.P.)

The B.S.P. degree prepares students for careers in urban planning. Students take courses that include comprehensive planning, socioeconomic and environmental analysis, computer and analytical methods, planning law, site planning, landscape architecture, urban design, and public policy for formulation and administration. An internship or an approved elective is required between the third and fourth years. Many students continue to specialize in planning at the graduate level. Students in planning are exposed to the theories, methods, and practices of the profession of planning.

#### Bachelor of Science in Landscape Architecture (B.S.L.A.)

The B.S.L.A. prepares students to be professional landscape architects. Students explore the reasons for and the techniques involved in the analysis, planning, and design of the environment, both natural and built. The B.S.L.A. is an accredited program.

#### Bachelor of Science in Design (B.S.D.)

A B.S.D. degree with a major in Housing and Urban Development. HUD educates and trains professionals to lead in the production of high quality affordable housing, in the development of creatively designed and soundly planned neighborhoods and communities, in the revitalization of communities, and in the exemplification of social inclusiveness and environmental sensitivity in responsible land development. HUD graduates may pursue careers in the private home development industry, in publicly sponsored housing and community redevelopment, with nonprofit housing agencies, or in postgraduate housing and urban development research and education. The B.S.D. degree with a major in Housing and Urban Development is offered in conjunction with the College of Extended Education.

### MINORS

#### Landscape Studies

The minor in Landscape Studies is designed for students who have an interest in landscape aesthetics but are pursuing a major in another field. The course selection is intended to provide greater understanding of landscape issues than

Literary and critical quality MA mathematics CS computer statistics quantitative political HU humanities and fine arts SB social and behavioral science SG natural sciences general resources SQ natural and quantitative C cultural diversity the United States Global History See the Planning Studies page 83

## COLLEGE OF ARCHITECTURE AND ENVIRONMENTAL DESIGN

may be relevant in related professional disciplines and to broaden knowledge about the landscape in which we live.

Students must complete a minimum of 18 semester hours from the following list of courses. Students may petition to have other PLA special topics courses considered as part of the 18 semester hours required.

PLA 101 Landscape and Society <i>HL G</i>	3
PLA 310 History of Landscape Architecture	3
PLA 311 Contemporary Landscape Architecture	3
PLA 410 Social Factors in Landscape and Urban Planning	3
PLA 411 Landscape Architecture Theory and Criticism <i>L</i>	3
PLA 412 Landscape Ecology and Planning	3
PLA 413 Southwest Landscape Interpretation	3
PLA 420 Theory of Urban Design <i>HL</i>	3
PLA 485 International Field Studies in Landscape Architecture <i>G</i>	6

The minor is open to students of all majors. Students must however, have an overall GPA of 3.00 or higher and achieve a minimum 3.00 GPA in minor classes to be awarded the minor. Students seeking admission to the minor in Landscape Studies must submit a minor verification form to the landscape architecture coordinator in the School of Planning and Landscape Architecture.

### Urban Planning

The minor in Urban Planning is designed for students who are interested in the field but who wish to pursue other majors. The course selection is designed to provide an overview of the field and offer information with broad appeal.

All students must complete a minimum of 15 semester hours from the following courses:

PUP 301 The Planned Environment <i>HL H</i>	3
PUP 302 Introduction to Urban Planning <i>L</i>	3
PUP 402 History of the City <i>H</i>	3
PUP 402 Theory of Urban Design <i>HL</i>	3
PUP 425 Urban Housing Analysis	3
PUP 430 Transportation Planning and the Environment	3
PUP 452 Planning and Development Control Law	3
PUP 403 Zoning Ordinances, Subdivisions, Regulations, and Building Codes	3
PUP 442 Environmental Planning	3
PUP 444 Preservation Planning	3
PUP 475 Environmental Impact Assessment	3
PUP 494 Special Topics	3
PLP 510 Citizen Participation	3

\* PUP 301 Introduction to Urban Planning is required. Landscape Architecture students must choose another class with an advisor's approval since PUP 301 is already required for the B.S.L.A.

The minor is automatically open to students from the following majors: Architectural Studies, Civil Engineering, Environmental Resources, Geography, Housing and Urban Development, Landscape Architecture, and Real Estate. Students pursuing other majors will be considered on an individual basis. To pursue a minor in Urban Planning, students must have a minimum cumulative GPA of 3.00. These students must submit a letter of application to the School of Planning and Landscape Architecture seeking approval to enter the minor program.

## GRADUATE PROGRAMS

The faculty in the School of Planning and Landscape Architecture offer concentrations in landscape ecological planning, urban and regional development, and urban design under the Master of Environmental Planning (M.E.P.) degree and a collegewide, interdisciplinary Ph.D. degree in Environmental Design and Planning with concentrations in design; history, theory, and criticism; and planning. For more information, see the *Graduate Catalog*.

## ADMISSION

**Lower-Division Program.** New and transfer students who have been admitted to the university and who have selected a program in the School of Planning and Landscape Architecture are admitted to the lower division program. Transfer credits for the lower division program are reviewed by the college and evaluated for applicability to this curriculum. To be applicable, transfer courses must be equivalent in both content and level of offering. A review of samples of work is required for studio classes. See a college academic advisor for an appointment.

Completion of lower division requirements does not ensure acceptance to the upper division professional program. Admission to the upper division is competitive and limited to the space available. Admission requires form application and acceptance.

**Upper-Division Program.** Admission to the upper division programs of the School of Planning and Landscape Architecture is limited to applicants who have completed the lower division program requirements and who are determined by the admissions committee to have the best potential for academic success. Spaces in the program are limited by available facilities, faculty, and qualified applicants. A minimum lower division program GPA of 3.00 may be required. See "Application to Upper Division Programs," on this page.

Students not admitted to upper division programs are not dismissed from the university and may reapply later or may transfer to other programs. Students who plan to reapply should meet with a college academic advisor.

## APPLICATION TO UPPER-DIVISION PROGRAMS

**Upper-Division Application Procedures.** Students should write to a college academic advisor for the application form well in advance of the application deadline. For more information on portfolios, ask for a copy of the portfolio guidelines from a college academic advisor.

Landscape Architecture students in good standing who will complete all required lower division courses by the end of the fall semester of their sophomore year may apply for admission to the upper division in November of their sophomore year. Urban Planning and Housing, and Urban Development students in good standing who will complete all required lower division courses by the end of the spring semester of their sophomore year may apply for admission to the upper division in April of their sophomore year.

## SCHOOL OF PLANNING AND LANDSCAPE ARCHITECTURE

**Upper-Division Application Deadlines.** *November 15, 2002.* Landscape Architecture portfolio and application documents are due in the school office by 5 P.M.

*December 16, 2002.* Acceptance notices are mailed to Landscape Architecture students no later than December 16.

*January 3, 2003.* Landscape Architecture students must submit transcripts of non ASU course work if their spring semester includes course work taken at another institution. These transcripts may be unofficial copies.

*April 15, 2003.* Urban Planning, and Housing and Urban Development portfolio and application documents due in the school office by 5 P.M.

*June 3, 2003.* Urban Planning, and Housing and Urban Development students must submit transcripts of non ASU course work if their spring semester includes course work taken at another institution. These transcripts may be unofficial copies.

**Official Transcripts.** A second set of official transcripts must be sent to the university's Office of the Registrar. An application is not complete until the university receives official transcripts for transfer course work.

*July 1, 2003.* Acceptance notices are mailed no later than July 1.

**Return of Letter of Acceptance.** A signed receipt of acceptance of admission must be received by the school by the date indicated on the Notice of Acceptance. Alternates may be accepted at a later date if space becomes available.

**Matriculation.** An accepted student is expected to begin his or her upper division professional program at the beginning of the immediate fall term. There is no spring admission to the upper division.

**Portfolio Format Requirements.** Each applicant is responsible for obtaining the following documents and including them in a presentation binder (portfolio) with plastic sleeves 8 1/2 x 11" format only and a label, with the student's name, affixed to the outside:

1. evidence of graphic and design work shown in 35 mm slides or 3 x 5" or other appropriately sized photographs (20 maximum);
2. a statement of intent describing the applicant's specific background and interest in the major;
3. latest college level transcript(s) (no high school transcripts are required);
4. one example of written work (e.g., a class paper), and
5. samples of individual work; team work can be included, but the contribution of the candidate must be clarified.

Students are also strongly encouraged to submit evidence of other endeavors related to the major. The applicant's GPA based on required courses and cumulative GPA is evaluated. Housing and Urban Development students completing the Phoenix Community College PCC articulation program with the B.S.D. HUD program should submit similar material from PCC.

Students should obtain a portfolio requirements addendum for their major from the college's Academic Advising

Office, ARCH 141, at the beginning of the academic year in which they intend to apply to the upper division program. Requirements or instructions indicated in the addendum for that academic year take precedence over any other printed material.

**Return of Portfolios.** Application documents remain the property of the School of Planning and Landscape Architecture. However, the remainder of the portfolio is returned after the admissions review, provided the applicant encloses a self-addressed return mailer with sufficient prepaid postage. Portfolios may be claimed in person after the letter of response is submitted. If the applicant provides written permission, another person may claim the portfolio. After one year, unclaimed portfolios are discarded. While care is taken in handling the portfolios, no liability for lost or damaged materials is assumed by the college or school.

### ADVISING

Advising for the lower division curriculum is provided through a college academic advisor. Advising for the upper division curriculum is provided by the school director and faculty advisors.

### DEGREE REQUIREMENTS

#### Urban Planning

The Bachelor of Science in Planning degree requires a total of 120 semester hours.

Preprofessional program courses	61
Professional program courses core	56
Internship	3
Total	120

**General Studies Requirement.** The following curriculum includes sufficient approved course work to fulfill the General Studies requirement. See "General Studies," page 83, for requirements and a list of approved courses. Note that all three General Studies awareness areas are required. Consult your advisor for an approved list of courses.

**Graduation Requirements.** In addition to fulfilling college and major requirements, students must meet all university graduation and college degree requirements. See "University Graduation Requirements," page 79, and "College Degree Requirements," page 124.

Literacy and critical thinking MA mathematics CS computer statistics  
 quantitative applications HU humanities and fine arts SB social and  
 behavioral science SG natural science general core courses SQ natural  
 science quantitative C cultural diversity in the United States G global  
 history See General Studies page 83



## COLLEGE OF ARCHITECTURE AND ENVIRONMENTAL DESIGN

### Bachelor of Science in Planning, Major in Urban Planning Preprofessional Program Requirements

#### First Year

<b>Fall</b>	
ENG 101	First Year Composition or ENG 105 Advanced First Year Composition if qualified
MA 111	College Algebra MA elective or approved more advanced MA elective 3
PUP 100	Introduction to Environmental Design HU/GH 3
PUP 161	Graphic Communication 3
Elective	3
Total	15

<b>Spring</b>	
ENG 101	First Year Composition or ENG 105 taken 3
Elective	3
Elective	3
SB elective	3
SQ or SG elective	4
Total	16

#### Second Year

<b>Fall</b>	
PLA 111	Landscape Studio I HU/GH 3
PUP 261	Urban Planning I 4
PUP 311	Introduction to Urban Planning L 3
PUP 322	Computers in Planning 3
HU elective	3
Total	6

<b>Spring</b>	
PUP 262	Urban Planning II 4
PUP 363	History of Planning 3
Approved statistics or quantitative reasoning elective	3
Natural science elective with laboratory	4
Total	14
Preprofessional program total	61

Transfer credits are reviewed by the college and evaluated as applicable to this curriculum. To be applicable, a student's courses must be equivalent in both content and level of offering. Portfolio review is required for transfer student work. See college academic advisor for appointment.

The first round of admission to the upper division takes place after the fall semester of the second year. The second round, if needed, takes place after the spring semester.

### Bachelor of Science in Planning, Major in Urban Planning Professional Program Requirements

#### Third Year

<b>Fall</b>	
PUP 361	Urban Planning III 4
PUP 424	Planning Method 4
PUP 452	Ethics and Theory in Planning L 3
Elective	3
Minimum total	14

#### Spring

PUP 362	Urban Planning IV 4
PUP 436	City Structure and Planning 3
PUP 510	Citizen Participation 3
Approved program elective	3
SB elective	3
Total	16

#### Summer

PUP 484	Internship or Study Abroad (use elective credit or approved elective) 3
Total	3

#### Fourth Year

<b>Fall</b>	
PUP 432	Planning and Development Control Law 3
PUP 442	Environmental Planning 3
PUP 461	Urban Planning V 4
Approved program elective	3
Total	13

#### Spring

PUP 442	Theory of Urban Design HU 3
PUP 434	Urban Land Economics 3
or approved program elective*	
PUP 462	Urban Planning VI 4
Elective	3
Total	3
Professional program total	59
BSP minimum total	20

Select a minimum of nine semester hours from approved SPLA elective list.

### Landscape Architecture

The Bachelor of Science in Landscape Architecture degree requires a total of 120 semester hours.

Preprofessional program course	47
Professional program courses	73
Total	120

**General Studies Requirement.** The following curriculum includes sufficient approved course work to fulfill the General Studies requirement. See "General Studies" page 83, for requirements and a list of approved courses. Note that all three General Studies awareness areas are required. Consult your advisor for an approved list of courses.

**Graduation Requirements.** In addition to fulfilling college and major requirements, students must meet all university graduation and college degree requirements. See "University Graduation Requirements" page 79, and "College Degree Requirements," page 124.

### Bachelor of Science in Landscape Architecture Preprofessional Requirements<sup>1</sup>

#### First Year

<b>Fall</b>	
ENG 101	First Year Composition 3
or ENG 105 Advanced First Year Composition 3	
PLA 101	Landscape and Society HU/C 3
PLA 161	Graphic Communication 3
PUP 100	Introduction to Environmental Design HU/GH 3

## SCHOOL OF PLANNING AND LANDSCAPE ARCHITECTURE

Elective .....	3
Total .....	15

### Spring

ADE 12 Design Fundamentals .....	3
ARS 102 Art of the Western World II <i>HL</i> .....	3
ENG 102 First Year Composition .....	3
GPH 111 Introduction to Physical Geography <i>SG</i> .....	4
MAT 117 College Algebra <i>M4</i> .....	3
Total .....	16

### Second Year

#### Fall

PLA 240 Landscape Survey Techniques .....	3
PLA 261 Landscape Architecture I .....	4
PLA 310 History of Landscape Architecture <i>HL</i> .....	3
PLA 494 ST Plant Materials .....	3
PUP 30 Introduction to Urban Planning <i>L</i> .....	3
Total .....	16
Professional program total .....	47

Transfer credits are reviewed by the college and evaluated as applicable to this curriculum. To be applicable, transfer courses must be equivalent in both content and level of offering.

- \* Portfolio review is required for transfer student work. See a college academic advisor for an appointment.

### Bachelor of Science in Landscape Architecture Professional Program Requirements

### Second Year

#### Spring

PLA 222 Computers in Landscape Architecture <i>CS</i> .....	3
PLA 242 Landscape Construction I .....	4
PLA 262 Landscape Architecture II .....	4
SG or SG elective with laboratory .....	4
Total .....	15

### Third Year

#### Fall

PLA 311 Contemporary Landscape Architecture .....	3
PLA 344 Landscape Construction II .....	4
PLA 361 Landscape Architecture III .....	4
C elective .....	3
SB elective .....	3
Total .....	17

#### Spring

PLA 345 Professional Practice Seminar .....	1
PLA 362 Landscape Architecture IV .....	4
PLA 363 Landscape Planning Design .....	4
PLP 420 Theory of Urban Design <i>HL</i> .....	3
Elective .....	3

Minimum total .....

#### Summer

PLA 484 Internship optional .....	3
or PLA 485 International Field Studies in Planning and Landscape Architecture 6 (optional) *	

### Fourth Year

#### Fall

PLA 410 Social Factors in Landscape and Urban Planning .....	3
PLA 461 Landscape Architecture V .....	4
PLP 432 Planning and Development Control Laws .....	3

Elective .....	3
Total .....	13

### Spring

PLA 411 Landscape Architecture Theory and Criticism <i>L</i> .....	3
PLA 462 Landscape Architecture VI .....	4
Electives .....	6
Total .....	13
Professional program total .....	73
B.S.L.A. minimum total .....	120

PLA 484 or 485 would be used as an elective in the fourth year.

### Housing and Urban Development

The Bachelor of Science in Design degree in Housing and Urban Development requires a total of 120 semester hours.

Preprofessional program course .....	61
Professional program courses core .....	59

Total .....

### General Studies Requirements

The following curriculum includes sufficient approved course work to fulfill the General Studies requirement. See "General Studies" page 83, for requirements and a list of approved courses. Note that all three General Studies awareness areas are required. Consult your advisor for an approved list of courses.

**Graduation Requirements.** In addition to fulfilling college and major requirements, students must meet all university graduation and college degree requirements. See "University Graduation Requirements" page 79, and "College Degree Requirements," page 124.

### Bachelor of Science in Design, Major in Housing and Urban Development Preprofessional Program Requirements

### First Year

#### Fall

ENG 101 First Year Composition .....	3
HUD 161 Graphic Communication .....	3
MAT 117 College Algebra <i>M4</i> .....	3
or MAT 17 Precalculus <i>M4</i> 3	
or MAT 210 Brief Calculus <i>MA</i> 3	

Elective .....	3
SB elective .....	3

Total .....

#### Spring

ENG 102 First Year Composition .....	3
HUD 201 Introduction to Housing and Urban Development .....	3
HL, H elective .....	3
Natural science elective with laboratory <i>SG</i> .....	4
SB elective .....	3

Total .....

Literacy and data literacy MA mathematics CS computer statistics quantitative applications HU humanities and fine arts SB social and behavioral science SG natural science—general sciences SQ natural science quantitative C diversity/independent State G global history. See General Studies page 8.

## COLLEGE OF ARCHITECTURE AND ENVIRONMENTAL DESIGN

### Second Year

#### Fall

APH 200	Introduction to Architecture <i>HL G</i>	3
any CAED history course listed below		
CON 252	Building Construction Methods, Materials, and Equipment	3
PLA 260	Landscape Architecture I	4
or PUP 201 Urban Planning I		
C	elective	3
CS	statistics elective	3
Total		16

#### Spring

ACC 230	Uses of Accounting Information I	3
CON 294	ST: Working Drawings and Specifications Analysis	1
L	elective	3
Natural science elective with laboratory SQ or SG		
Upper division HL elective		
Total		14
Preprofessional program total		
		61

Transfer credits are reviewed by the college and evaluated as admissible to this curriculum. To be admissible, transfer courses must be equivalent in both content and level of offering.

- <sup>2</sup> See CAED History Courses, on this page. If the selected course does not also satisfy the G requirement, the student must select a course that does satisfy the G requirement either as an elective or in conjunction with another General Studies course.

**CAED History Courses** These CAED history courses also fulfill HU. See the course listings for prerequisites.

APH 300	World Architecture I/Western Cultures <i>HL G H</i>	3
APH 305	Contemporary Architecture <i>HL</i>	3
APH 315	History of Western Architecture I <i>HL HL G</i>	3
APH 446	21st Century Architecture I <i>HL</i>	3
DSC 101	Design Awareness <i>HL G</i>	3
GRA 315	History of Graphic Design <i>HL</i>	3
IND 316	20th Century Design I <i>HL H</i>	3
INT 223	Interior Design Issues and Theories <i>HL</i>	3
INT 310	History of Interior Design I <i>HL H</i>	3
INT 311	History of Interior Design II <i>HL H</i>	3
INT 412	History of Decorative Arts in Interiors <i>HL</i>	3
PUP 200	The Planned Environment <i>HL H</i>	3
PUP 420	Theory of Urban Design <i>HL</i>	3

### Bachelor of Science in Design, Major in Housing and Urban Development Professional Program Requirements

#### Third Year

#### Fall

CON 383	Construction Estimating	3
HUD 301	Housing and Community Design and Development	3
HUD 361	Housing and Urban Development Studio I: Residential Design and Development	3
HUD 367	Housing and Urban Development Seminar I: Residential Design and Development	3
Any REA course		
Total		4

#### Spring

CON 389	Construction Cost Accounting and Control CS	3
HUD 302	Housing Production Process	3
HUD 362	Housing and Urban Development Studio II: Community Design and Development	3

HUD 364	Housing and Urban Development Seminar II: Community Design and Development	3
HUD 403	Advanced Topics in Housing and Urban Development	3
E	lective	3
Total		7

#### Fourth Year

#### Fall

CON 495	Construction Planning and Scheduling CS	3
HUD 401	Assisted Housing	3
HUD 401	Housing and Urban Development Studio II: Comprehensive Housing Development Process	2
HUD 463	Housing and Urban Development Seminar III: Comprehensive Housing Development Process	3
PUP 452	Ethics and Theory in Planning I	3
Total		14

#### Spring

HUD 402	Community Revitalization Problems and Strategies	3
HUD 462	Housing and Urban Development Studio V: Neighborhood Revitalization Process	2
HUD 464	Housing and Urban Development Seminar IV: Neighborhood Revitalization Process	3
PUP 433	Zoning Ordinances, Subdivision Regulations, and Building Codes	3
or PUP 432 Planning and Development Control Law		
E	lective	3
Total		14
Professional program total		
		59
B.S.D.H. Minimum total		
		121

## INQUIRIES

For more information, contact a college academic advisor:

COLLEGE OF ARCHITECTURE AND  
ENVIRONMENTAL DESIGN  
ARIZONA STATE UNIVERSITY  
PO BOX 871605  
TEMPE AZ 85287 1605

## ENVIRONMENTAL DESIGN AND PLANNING (EPD)

See the *Graduate Catalog* for EPD courses.

## HOUSING AND URBAN DEVELOPMENT (HUD)

### HUD 161 Graphic Communication. (3)

#### fa

Develops drawing skills and understanding of the graphic communication systems used by planning, homebuilding, and landscape architecture professions. Studio. Cross-listed as PLA 161/PUP 161. Credits awarded for only HUD 161 or PLA 161 or PUP 161.

### HUD 201 Introduction to Housing and Urban Development. (3)

#### spring

Perspectives and issues concerning HUD. Guest lectures by inter-disciplinary faculty and private, public, and nonprofit practitioners.

### HUD 301 Housing and Community Design and Development. (3)

#### fa

Single- and multi-family housing, residential neighborhoods and planned communities. Affordability, new, occupied and rental housing. First-time move-up and adult market.

## SCHOOL OF PLANNING AND LANDSCAPE ARCHITECTURE

### HUD 302 Housing Production Process. (3)

*spring*

Development feasibility analysis, finance, contracts, and acquisition, community and permit presentation and negotiation, scheduling, cost control, marketing, and sales

### HUD 361 Housing and Urban Development Studio I: Residential Design and Development. (2)

*fall*

Affordable residential design, development, and production process. Studio Pre- or corequisites: HUD 301, 363, upper division HUD major.

### HUD 362 Housing and Urban Development Studio II: Community Design and Development. (2)

*spring*

Neighborhood and new community design and development process. Studio Pre- or corequisites: HUD 301, 361, 363, 364, upper division HUD major

### HUD 363 Housing and Urban Development Seminar I: Residential Design and Development. (3)

*fall*

Affordable residential design, development, and production process. Seminar Pre- or corequisites: HUD 301, 361, upper division HUD major

### HUD 364 Housing and Urban Development Seminar II: Community Design and Development. (3)

*spring*

Neighborhood and new community design and development process. Seminar Pre- or corequisites: HUD 301, 361, 362, 363, upper division HUD major

### HUD 401 Assisted Housing. (3)

*fall*

Publicly subsidized and nonprofit housing. Policy implementation and administration. FHA Section 8, FmHA projects and scatter-site, and tax considerations

### HUD 402 Community Revitalization: Problems and Strategies. (3)

*spring*

Public policy and strategies for neighborhood revitalization and community renewal. Preservation and adaptive reuse, gentrification, neighborhood safety, and related social/economic concerns

### HUD 403 Advanced Topics in Housing and Urban Development. (3)

*fall and spring*

Varying topics such as manufactured housing, homelessness, mortgage and finance, housing abroad, marketing housing, and sustainable community development

### HUD 461 Housing and Urban Development Studio III: Comprehensive Housing Development Process. (2)

*fall*

Comprehensive development process simulation. Feasibility analysis, finance, design, community and permit presentation, construction cost management, and marketing. Studio Pre- or corequisites: HUD 302, 463, upper division HUD major

### HUD 462 Housing and Urban Development Studio IV: Neighborhood Revitalization Process. (2)

*spring*

Housing rehabilitation, neighborhood revitalization, and urban redevelopment. CDBG empowerment enterprise zone, code enforcement, citizen participation, etc. Studio Pre- or corequisites: HUD 401, 402, 464, upper division HUD major

### HUD 463 Housing and Urban Development Seminar III: Comprehensive Housing Development Process. (3)

*fall*

Comprehensive development process simulation. Feasibility analysis, finance, design, community and permit presentation, construction cost management, and marketing. Seminar Pre- or corequisites: HUD 302, 461, upper division HUD major

### HUD 464 Housing and Urban Development Seminar IV: Neighborhood Revitalization Process. (3)

*spring*

Housing rehabilitation, neighborhood revitalization, and urban redevelopment. CDBG empowerment enterprise zone, code enforcement, citizen participation, etc. Seminar Pre- or corequisites: HUD 401, 402, 462, upper division HUD major

### HUD 484 Internship. (1)

*summer*

**Omnibus Courses.** For an explanation of courses offered but not specifically listed in this catalog, see Omnibus Courses, page 56

## LANDSCAPE ARCHITECTURE (PLA)

### PLA 101 Landscape and Society. (3)

*fall*

Examines interrelationship between society and the landscape with emphasis on human involvement in shaping the landscape

*General Studies: HU, G*

### PLA 161 Graphic Communication. (3)

*fall*

Develops drawing skills and understanding of the graphic communication systems used by planning, homebuilding, and landscape architecture professions. Studio Credits awarded for only HUD 161 or PLA 161 or P 161

### PLA 222 Computers in Landscape Architecture. (3)

*spring*

Computer applications in landscape architecture including CAD, GIS, graphics, and visualization. Lab

*General Studies: CS*

### PLA 240 Landscape Survey Techniques. (3)

*fall*

Develops landscape survey skills including aerial photography, satellite images, georeferencing, landscape surveys, and field data collection. Lecture, lab

### PLA 242 Landscape Construction I. (4)

*spring*

Landscape constructions focusing on landform transformation. Topics include landform analysis, grading, and earthwork. Studio Prerequisite: admission to professional program

### PLA 261 Landscape Architecture I. (4)

*fall*

Landscape communication, communication techniques for urban planning and landscape architecture. Credits awarded for only PLA 261 or PUP 261. Studio Prerequisites: ADE 120, GPA 111

### PLA 262 Landscape Architecture II. (4)

*spring*

Reading the landscape, observing, experiencing, and graphically expressing the symbolic and aesthetic significance of natural and spaces. Prerequisites: ADE 120, PLA 261; admission to professional program

### PLA 310 History of Landscape Architecture. (3)

*fall*

Physical record of human attitudes toward the land. Ancient through contemporary landscape planning and design. Cross-listed as APH 411. Credits awarded for only APH 411 or PLA 310

*General Studies: H*

### PLA 311 Contemporary Landscape Architecture. (3)

*fall*

Expresses concerns, projects, and movements in landscape architecture of late 20th century understanding social/economic/regional and historical influences

### PLA 344 Landscape Construction II. (4)

*fall*

Characteristics of materials and methods used in landscape architecture construction. Studio Prerequisite: PLA 242 or instructor approval

### PLA 345 Professional Practice Seminar. (1)

*spring*

Landscape architecture practice including contracts, project and office management, liability, licensing, and professional development.

Literacy and literacy MA mathematics CS computer statistics quantitative application HU humanities and fine arts SB social and behavioral science SG natural science general core course SQ natural scene quantitative C cultural diversity in the United States G global history See General Studies page 83

## COLLEGE OF ARCHITECTURE AND ENVIRONMENTAL DESIGN

### PLA 361 Landscape Architecture III. (4)

*fa*

Site planning analysis of natural and cultural features, site systems and implications for planning and design. Studio Fee. Prerequisite: admission to professional program.

### PLA 362 Landscape Architecture IV. (4)

*spring*

Site design, the specific design of configured space by the creative development of form. Studio Fee. Prerequisite: admission to professional program.

### PLA 363 Landscape Painting Design. (4)

*spring*

Function and aesthetic use of painting in design and landscape design. Explores design philosophies through painting design problems. Studio. Prerequisite: admission to professional program.

### PLA 410 Social Factors in Landscape and Urban Planning. (3)

*fa*

Examines the influence of social factors on landscape architecture and urban planning.

### PLA 411 Landscape Architecture Theory and Criticism. (3)

*spring*

Critical analysis of landscape architecture theories and projects. Evaluate validity of design and contribution to society. Prerequisites: PLA 311, 361, 362, 420, 461.

*General Studies L*

### PLA 412 Landscape Ecology and Planning. (3)

*selected semesters*

Reviews the evolution of landscape ecology and landscape planning and examines use and value.

### PLA 413 Southwest Landscape Interpretation. (3)

*selected semesters*

Explores methods and implications of landscape interpretation within the American Southwest.

### PLA 420 Theory of Urban Design. (3)

*spring*

Analyses the visual and cultural aspects of urban design. Theoretical and technical approaches to selected study models. Prerequisite: understanding.

*General Studies HU*

### PLA 446 Landscape Construction II. (3)

*spring*

Landscape construction focusing on low technology, botanical, regional and experimental techniques. Systems. Lecture, studio.

### PLA 461 Landscape Architecture V. (4)

*fa*

Landscape ecology planning, site and application of ecological data relevant to planning and design at landscape scale. Studio Fee. Prerequisite: PLA 362.

### PLA 462 Landscape Architecture VI. (4)

*spring*

Advanced landscape architecture integrative capstone studio with multifaceted design problems. Fee. Prerequisite: PLA 461.

### PLA 484 Internship. (3)

*fa, spring, summer session 1*

Field interns under the supervision of practitioners in the professional area of choice. Credit/no credit. Prerequisite: choice and/or instructor approval.

### PLA 485 International Field Studies in Planning and Landscape Architecture (1-12)

*fa, spring, summer*

Organized field study of planning and landscape architecture in specific international locations. May be repeated for credit with school approval. Study abroad. Cross-listed as PUP 485. Credit is awarded for only PLA 485 or PUP 485.

*General Studies G*

### PLA 494 Special Topics. (1-4)

*fa, and spring*

Topics may include the following:  
• Plant Materials. 3

### PLA 498 Pro-Seminar. (1-7)

*spring*

Topics may include the following:  
• Professional Senior Seminar. 1

**Omnibus Courses.** For an explanation of courses offered but not specifically listed in this catalog, see Omnibus Course page 56.

## URBAN AND ENVIRONMENTAL PLANNING (PUP)

### PUP 100 Introduction to Environmental Design. (3)

*fa, and spring*

Survey of environmental design includes historical examples and the theoretical and technical and environmental forces that shape them. Cross-listed as APH 101, DSC 100. Credit is awarded for only APH 100 or DSC 100 or PUP 100.

*General Studies HU, G, H*

### PUP 161 Graphic Communication. (3)

*fa*

Develops drawing skills and understanding of the graphic communication system used by planning, home building, and landscape architecture professions. Studio. Cross-listed as HUD 161, PLA 161. Credit is awarded for only HUD 161 or PLA 161 or PUP 161.

### PUP 200 The Planned Environment. (3)

*fa*

Environmental aesthetic, economic, political and other factors influencing urban development.

*General Studies HU, H*

### PUP 236 Introduction to Computer Modeling. (3)

*fa, and spring*

Fundamentals of computer operation, geographic information systems, geometric modeling of three-dimensional forms and rendering of digital mathematical modeling of processes using spreadsheets. Lab. Prerequisite: major in the College of Architecture and Environmental Design.

*General Studies CS*

### PUP 261 Urban Planning I. (4)

*fa*

Planning and landscape architecture communication techniques for urban planning and landscape architecture. Communication. Credit is awarded for only PUP 261 or PLA 261. Prerequisite: PUP 161 or its equivalent.

### PUP 262 Urban Planning II. (4)

*spring*

Real-time and observational, experiential and graphical expression of symbolic and aesthetic significance of natural and spaces. Studio. Prerequisite: PUP 261.

### PUP 301 Introduction to Urban Planning. (3)

*fa, spring, summer*

Theoretical and practical aspects of city planning, interaction among physical planning, environment, government and society.

*General Studies*

### PUP 322 Computers in Planning. (3)

*fa*

Planning method using Geographic Information Systems database, spreadsheet, image manipulation and desktop publishing, computer software packages. Lecture, lab.

### PUP 361 Urban Planning II. (4)

*fa*

Site planning analysis of natural and cultural features, site systems and implications for planning and design. Studio Fee. Prerequisite: school major or instructor approval.

### PUP 362 Urban Planning IV. (4)

*spring*

Neighborhood planning, local community planning, urban development, neighborhood improvement. Studio Fee. Prerequisite: PUP 361 or instructor approval.

### PUP 363 History of Planning. (3)

*spring*

Historical overview of western urban and regional planning and planning theory, focusing on the 19th and 20th centuries.

## SCHOOL OF PLANNING AND LANDSCAPE ARCHITECTURE

### PUP 412 History of the City. (3)

*fa*

The city from its ancient origins to the present day. Emphasizes European and American cities during the last five centuries. Cross-listed as APH 414. Credit is allowed for only APH 414 or PUP 412.

*Genera Studies H*

### PUP 420 Theory of Urban Design. (3)

*spring*

Analyzes the visual and cultural aspects of urban design. Theories and techniques applied to selected study models. Prerequisite: junior or standing.

*Genera Studies HU*

### PUP 424 Planning Methods. (4)

*fa*

Too useful for urban planning research; emphasizes research design and survey methods. Study. Prerequisite: PUP 301 or instructor approval.

### PUP 425 Urban Housing Analysis. (3)

*fa*

Nature, dimensions, and problems of urban housing: government policy, environment, and underlying economics of the housing market.

### PUP 430 Transportation Planning and the Environment. (3)

*spring*

Overview of transportation planning from the perspective of land use, planning, economic development, environmental planning, and social needs. Lecture, discussion. Prerequisite: junior or standing or instructor approval.

### PUP 432 Planning and Development Control Law. (3)

*fa*

Case studies on police power, eminent domain, zoning subdivisions, controls, excisions, preservation, urban redevelopment, aesthetic and design regulation. Prerequisite: admission to upper division or instructor approval.

### PUP 433 Zoning Ordinances, Subdivision Regulations, and Building Codes. (3)

*spring*

Analyzes zoning ordinances, subdivision regulations, building codes and other planning implementation techniques relevant to development. Prerequisite: admission to upper division or instructor approval.

### PUP 434 Urban Land Economics. (3)

*spring*

Interaction between space and economic behavior. Examines the use and value of land through economic theories. Prerequisite: admission to upper division or instructor approval.

### PUP 436 City Structure and Planning. (3)

*spring*

Potential structure and organization of government as it relates to planning. Prerequisite: PUP 301.

### PUP 442 Environmental Planning. (3)

*fa*

Environmental planning problems, including food, air, water quality and quantity, solid and hazardous waste, air quality, and noise. Field trips. Prerequisite: PUP 301 or instructor approval.

### PUP 444 Preservation Planning. (3)

*spring*

History, theory, and principles of historic preservation. Emphasizes legal framework and methods practiced. Lecture, off-campus field study. Prerequisite: instructor approval.

### PUP 445 Women and Environments. (3)

*fa*

Examines the role women play in shaping the built environment: ways built forms affect women's lives. Focuses on contemporary issues. Examples. Prerequisite: admission to upper division or graduate standing.

*Genera Studies C*

### PUP 452 Ethics and Theory in Planning. (3)

*fa*

Ethics and theory of professional planning practice in urban and regional communities. Prerequisite: admission to upper division or instructor approval.

*Genera Studies L*

### PUP 461 Urban Planning V. (4)

*fa*

Comprehensive planning collection and analysis of economic, social, and environmental data relevant to urban planning development and use. Pass. Study. Fee. Prerequisite: PLA 362 or PUP 362 or instructor approval.

### PUP 462 Urban Planning VI. (4)

*spring*

Capstone studio project focusing on synthesis aspects of planning. Study. Fee. Prerequisite: PUP 461 or instructor approval.

### PUP 475 Environmental Impact Assessment. (3)

*spring*

Critique and methods for compliance with environmental laws: development of skills and techniques needed to prepare environmental impact statements assessments.

### PUP 484 Internship. (1-12)

*fa, spring, summer session 1*

Full-time internship under the supervision of practitioners in the physical area or other locale. Credit/no credit. Prerequisite: senior major or instructor approval.

### PUP 485 International Field Studies in Planning and Landscape Architecture. (1-12)

*fa, spring, summer*

Organized field study in planning and landscape architecture in specific international locations. May be repeated for credit with school approval. Study abroad. Cross-listed as PLA 485. Credit is allowed for only PLA 485 or PUP 485.

*Genera Studies G*

### PUP 494 Special Topics. (1-4)

*fa and spring*

Topics may include the following:  
• Environmental Planning Economics 3

### PUP 498 Pro-Seminar. (1-7)

*fa*

Topics may include the following:  
• Senior Pro-Seminar 1

### PUP 501 The Idea of Planning. (3)

*fa*

Comprehensive review of planning profession with a political, governmental, multicultural, and gender framework.

### PUP 510 Citizen Participation. (3)

*spring*

Theory and practice of citizen participation in planning. Examines and critiques participation techniques and roles of planners. Prerequisite: instructor approval.

### PUP 520 Planning Theories and Processes. (3)

*fa*

Reviews past and current theoretical developments related to social change perspectives, the role and ethics of planners. Prerequisite: instructor approval.

### PUP 524 Planning Methods I: Planning Research Methods. (3)

*fa*

Too useful for urban planning research; emphasizes research design and survey methods. Pre- or corequisite: PUP 501 or instructor approval.

### PUP 525 Urban Housing Analysis. (3)

*fa*

Nature, dimensions, and problems of urban housing: government policy, environment, and underlying economics of the housing market.

### PUP 531 Planning and Development Control Law. (3)

*spring*

Case studies on police power, eminent domain, zoning subdivisions, controls, excisions, preservation, urban redevelopment, and aesthetic and design regulation.

Literacy, numeracy, MA mathematics, CS computer statistics, quantitative applications, HU humanities and fine arts, SB social and behavioral sciences, SG natural science, general education, SQ natural science, quantitative, cultural diversity, United States, Global, History. See *Genera Studies* page 83.

## COLLEGE OF ARCHITECTURE AND ENVIRONMENTAL DESIGN

### **PUP 532 Advanced Urban Planning Law. (3)**

*spring*

Advanced study on selected issues in planning law, such as urban design controls, exclusionary practices, compensable regulation, and tax policy. Prerequisite: PUP 432 or instructor approval.

### **PUP 542 Environmental Administration and Planning. (3)**

*spring*

Environmental administration of policies and their relationship to environmental planning practices. Prerequisite: PUP 442.

### **PUP 544 Urban Land Use Planning. (3)**

*spring*

Theory and methods of urban land use planning, including the rational planning process, comprehensive, functional, and neighborhood plans. Pre- or corequisite: PUP 501 or instructor approval.

### **PUP 546 Urban Design Policy. (3)**

*selected semesters*

Advanced study of local, state, and federal urban design policy. Prerequisite: PLA 420 or PUP 420.

### **PUP 561 Urban Design Studio. (4)**

*selected semesters*

Current urban form and urban landscape design problems within the Phoenix-centered region. Studio.

### **PUP 572 Planning Studio I: Data Inventory and Analysis. (4)**

*fall*

Comprehensive planning workshop dealing with real community problems. Focuses on the data gathering and analysis steps of the planning process. Fee. Prerequisite: Master of Environmental Planning major or instructor approval.

### **PUP 574 Planning Studio II: Options and Implementation. (4)**

*spring*

Comprehensive planning workshop dealing with real community problems. Focuses on the development of options, plan making, and plan implementation. Studio. Fee. Prerequisite: PUP 572 or instructor approval.

### **PUP 575 Environmental Impact Assessment. (3)**

*spring*

Criteria and methods for compliance with environmental laws; develops skills and techniques needed to prepare environmental impact statements assessments.

### **PUP 576 GIS Studio. (3)**

*spring*

GIS as a tool to address large, multifaceted planning problems. Prerequisites: a combination of GPH 373 (or 598) and PAF 591 and PUP 322 or only instructor approval.

### **PUP 584 Internship. (3)**

*fall, spring, summer session 1*

Internship under the supervision of practitioners in the Phoenix area or other locales. Credit no credit.

### **PUP 591 Seminar. (1-12)**

*fall and spring*

Topics may include the following:

- Transportation Systems Proseminar

### **PUP 598 Special Topics. (1-4)**

*selected semesters*

Topics may include the following:

- Air Transportation Regulation
- Airport Systems
- Transportation Planning and the Environment

### **PUP 599 Thesis. (1-12)**

*fall, spring, summer session 1*

Fee.

### **PUP 622 Planning Methods II: Quantitative Planning Analysis. (3)**

*spring*

Methods and models used as the basic quantitative techniques of urban, regional, and environmental planning and policy analysis. Prerequisites: PUP 524; a course in statistics; instructor approval.

### **PUP 642 Land Economics. (3)**

*fall*

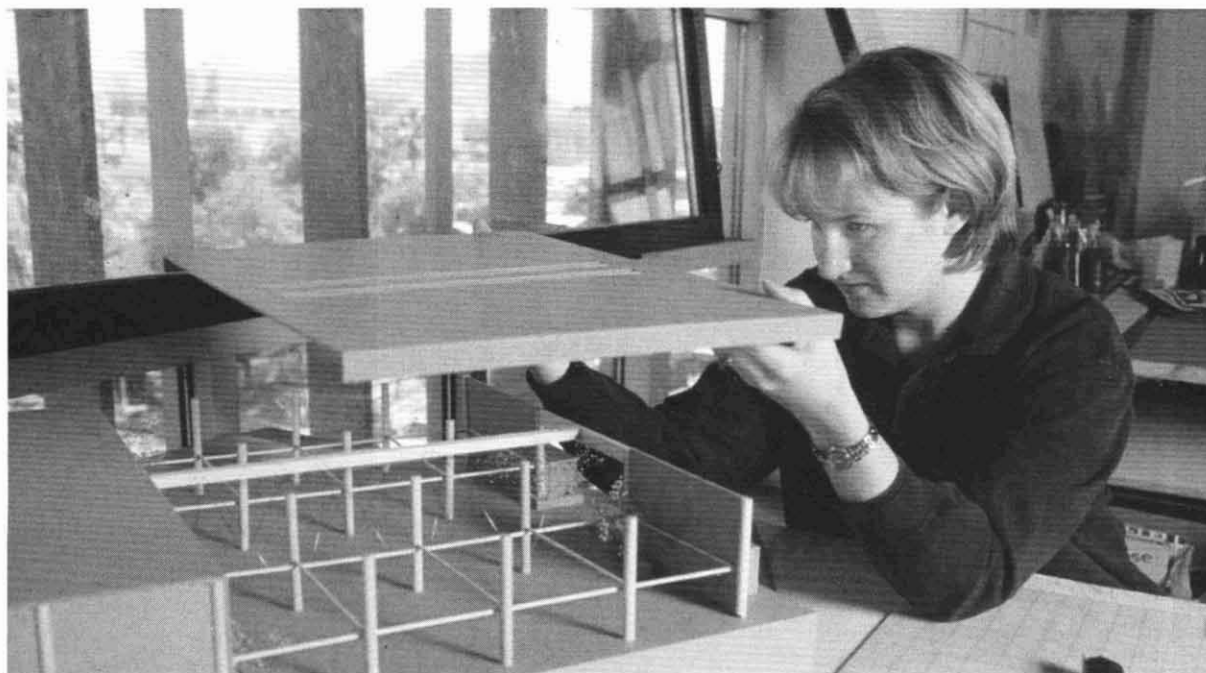
Land use and locational impact of economic activity and the urban real property market. Prerequisite: instructor approval.

### **PUP 644 Public Sector Planning. (3)**

*spring*

Urban fiscal problems and public goods provision in state and local governments. Prerequisites: a course in microeconomics; instructor approval.

**Omnibus Courses.** For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses" page 56.



Sandra Mood constructs a model for an Industrial Design course.

Tom Trumble photo



# College of Business

www.cob.asu.edu

Larry E. Penley, Ph.D., Dean

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## PURPOSE

The mission of the College of Business is to expand the knowledge of business and to educate men and women for managerial leadership through research activities and professional educational programs. These programs address issues of importance to future managers in a world characterized by demands for continuous improvements in quality, growing sophistication of information technology, globalized markets, racial, cultural, and gender diversity in the workforce, and a demand for managers with practical, realistic skills.

Students have many opportunities to supplement their academic experiences. The college offers an honors program for academically talented students, an Academic Access Program to assist underrepresented and other targeted students, an international component to provide a variety of international opportunities, an internship program that provides related practical experience, and 18 cocurricular organizations to increase student interaction and learning.

The college is a member of AACSB International, The Association to Advance Collegiate Schools of Business, the official accrediting organization in the field of business. The undergraduate and graduate programs of the School of Accountancy and Information Management are accredited by this organization.

The college is host to a chapter of Beta Gamma Sigma, a national society that recognizes high academic achievement

in AACSB International accredited schools. Selection to Beta Gamma Sigma is the highest scholastic honor a student in business can earn.

In addition to the regular degree curricula, other programs of study in the college are designed to meet special needs. Selective majors are available in the evening, and continuing education courses are conducted for qualified persons who are regularly employed and who otherwise would be unable to enroll in college courses. Short courses and institutes on a noncredit basis are organized in cooperation with various business groups for the furtherance of in-service training of employed personnel.

The college works in partnership with the business community, and the board of the Dean's Council of 100 serves as a primary source of advice and counsel for the college. Through the various divisions of the L. William Seidman Research Institute, the college reaches out to the business community through research and executive education. For more information, access the college's Web site at [www.cob.asu.edu](http://www.cob.asu.edu).

## ORGANIZATION

The courses offered by the College of Business are organized into groupings that related sequence may be established for the various subject fields. For administrative purposes, these fields are organized into the following academic units:

- School of Accountancy and Information Management
- Business Administration (East Campus)
- Department of Economics
- Department of Finance
- School of Health Administration and Policy
- Department of Management
- Department of Marketing
- Department of Supply Chain Management

## ADMISSION

**The Prebusiness Program.** Each student admitted to the College of Business is designated as a prebusiness student. The student follows the freshman and sophomore sequence of courses listed in the curriculum outline. Students are required to follow the recommendations of an academic advisor in completing the prescribed background and skill course in preparation for the subsequent professional program. The skill courses follow:

ACC 23	US and Accounting Information I	3
ACC 44	Use of Accounting for Decision	3

Literacy and Critical Thinking	MA	Mathematical	CS	Computer Literacy
Quantitative Analysis	HU	Humanities and Fine Arts	SB	Social and Behavioral Science
English Language	SG	Natural Science	GE	General Education
English Language	C	Civility	ED	Education
History	ED	Education	ED	Education

## COLLEGE OF BUSINESS

CIS 200 Computer Application and Information Technology CS.....	3
ECN 111 Macroeconomic Principles SB.....	3
ECN 112 Microeconomic Principles SB.....	3
Choose between the course combinations below.....	6 or 3
ENG 101 First Year Composition 3	
ENG 102 First Year Composition 3	
ENG 105 Advanced First Year Composition 3	
ENG 107 English for Foreign Students 3	
ENG 108 English for Foreign Students 3	
MAT 119 Finite Mathematics MA.....	3
MAT 210 Brief Calculus MA.....	3
QBA 221 Statistical Analysis CS.....	3
Total .....	27 or 30

Accountancy and Computer Information Systems majors should refer to their specific requirements under the "School of Accountancy and Information Management" page 163, which lists variations in the skill courses.

Completion of lower division requirements does not ensure acceptance to the upper division professional program. Prebusiness students are not allowed to register for 300- and 400-level business courses.

**The Professional Program.** The junior and senior years constitute the professional program of the undergraduate curriculum. Admission to the professional program is competitive and limited by available resources. Admission is awarded to those applicants demonstrating the highest promise for professional success.

Students who wish to apply to the College of Business professional program must submit an application during one of the three annual application periods. Candidates are strongly encouraged to visit the Undergraduate Programs Office, BA 109, at the beginning of the semester in which they wish to apply to pick up information regarding academic qualifications, admissions criteria, and application deadlines. The application can be found on the Web at [www.cob.asu.edu/up/up\\_professional\\_program.cfm](http://www.cob.asu.edu/up/up_professional_program.cfm). Applicants must be admitted to ASU by the time they submit their professional program application. Students are also required to complete the Business Basics workshop before applying to the professional program.

**Nonbusiness Students.** A nonbusiness student is permitted to register for selected 300- and 400-level business courses only during online registration and only if: 1. at the time of registration, the student has junior standing, 56 semester hours completed, and 2. the student has a minimum cumulative GPA of 2.50 at ASU and a minimum GPA of 2.50 for all business courses completed at ASU. Students who have 56 semester hours completed but have never attended ASU are given a one-semester period to register and to establish a GPA at ASU. Students must meet all prerequisites and course requirements as listed in the catalog.

Nonbusiness majors are limited to a maximum of 15 semester hours of selected upper division business courses, excluding ECN courses.

**Bachelor of Interdisciplinary Studies.** The College of Business participates in the Bachelor of Interdisciplinary

Studies degree. For details, refer to "Bachelor of Interdisciplinary Studies," page 114.

**Minors.** Two minors are available to nonbusiness students: a minor in Business and a minor in Small Business. The Small Business program is in the process of transferring to the faculty of Business Administration in East College at ASU East. To complete either of the minors, students must obtain the requirements from the Undergraduate Programs Office in the College of Business and complete the specified business courses with a grade of "C" or higher. Courses used in a student's major may not be used toward a minor. Students are advised to consult an advisor in the colleges of their majors to ensure the proper selection of courses for the minor. The upper division courses for the minor are restricted to students with 56 hours who are in good standing, a 2.0 ASU GPA or better. For details on the minor in Small Business, see "Small Business Programs," page 181.

**Nondegree Undergraduate and Graduate Students.** A nondegree undergraduate or graduate student is permitted to enroll in selected 300- and 400-level business courses only during online registration and only if: 1. the student has an ASU cumulative GPA of at least 2.50 and an ASU cumulative business GPA of at least 2.50 at the time of online registration or 2. the student has never attended ASU, in which case he or she is given a one-semester period to register during online registration and to establish a GPA at ASU. Students must meet all prerequisites and course requirements as listed in the catalog.

Nondegree undergraduate and graduate students are limited to a maximum of 15 semester hours of selected upper division business courses (excluding ECN courses).

## ADVISING

The student should follow the sequence of courses in the "Curriculum Outline Prebusiness Program," on this page, and the recommendations of the academic advisor in completing the prescribed background and skill courses in preparation for the subsequent professional program.

For more advising information, access the Undergraduate Programs Web site at [www.cob.asu.edu/up/indexup.cfm](http://www.cob.asu.edu/up/indexup.cfm).

### Curriculum Outline Prebusiness Program

#### First Year

<b>First Semester</b>	
ECN 111 Macroeconomic Principles SB.....	3
or ECN 112 Microeconomic Principles SB 3	
ENG 101 First Year Composition.....	3
or ENG 102 English for Foreign Student 3	
MAT 210 Brief Calculus MA.....	3
General Studies .....	3
PGS or SOC course .....	3
Total .....	15

#### Second Semester

COM 100 Introduction to Human Communication SB.....	3
or COM 250 Small Group Communication SB 3	
or COM 259 Communication in Business and the Professions 3	
ECN 112 Microeconomic Principles SB.....	3
or ECN 111 Macroeconomic Principles SB 3	

ENG 102 First-Year Composition.....3 or ENG 108 English for Foreign Students (3)	3
MAT 119 Finite Mathematics MA.....3	3
Laboratory science SQ.....4	4
Total .....	16

### Second Year

#### Third Semester

ACC 230 Uses of Accounting Information I.....3	3
QBA 221 Statistical Analysis CS.....3	3
General Studies.....3	3
Laboratory science SQ SG.....4	4
PGS or SOC course.....3	3
Total .....	16

#### Fourth Semester

ACC 240 Uses of Accounting Information II.....3	3
CIS 200 Computer Applications and Information Technology CS.....3	3
General Studies.....9	9
Total .....	15
Prebusiness program total .....	62

Accountancy and Computer Information Systems majors should refer to their specific course requirements under the "School of Accountancy and Information Management," page 163, which lists course requirement variations. Management majors should refer to their specific course requirements under the "Department of Management," page 176.

Students are encouraged to have College Algebra (MAT 117) proficiency before registering in ECN 111 and 112.

ECN 111 and 112 may be taken during the second and third semesters without any delay in the prebusiness program.

**Professional Program.** Students admitted to the professional program should select the necessary upper-division business courses to complete the major by consulting their departmental advising guide, with an academic advisor, or with a faculty advisor. Professional program students must complete BUS 301, COB 301, and SCM 300 during their first semester in the professional program. Accountancy and Management students substitute ENG 301 for BUS 301.

**Transfer Credit.** Credit from other institutions is accepted subject to the following guidelines. Students planning to take their first two years of work at a community college or another four-year college should take only those courses in business and economics that are offered as freshman- or sophomore-level courses at any of the state-supported Arizona universities. These lower-division courses are numbered 100 through 299. *A maximum of 30 hours of business and economics courses from community colleges are accepted toward a bachelor's degree in business.*

Students may transfer a maximum of nine semester hours of approved upper-division business course work required for the business degree to ASU Main. Professional business courses taught in the junior or senior year in the state universities may not be completed at a two-year college for transfer credit in the business core or major. The introductory course in the legal, ethical, and regulatory issues in business is accepted as an exception to this policy, but only



Kay Faris (second from right), assistant dean of the College of Business, walks with (from left) Marisa Calderón, Arnel Mends-Cole, and Jennifer Warren.

Tim Trumble photo

## COLLEGE OF BUSINESS

### College of Business Baccalaureate Degrees and Majors

Major	Degree	Concentration	Administered By
Accountancy	B.S.		School of Accountancy and Information Management
Business Administration	B.S.		East College
Computer Information Systems	B.S.		School of Accountancy and Information Management
Economics*	B.S.		Department of Economics
Finance	B.S.		Department of Finance
Management	B.S.		Department of Management
Marketing	B.S.		Department of Marketing
Real Estate	B.S.		Department of Supply Chain Management
Supply Chain Management	B.S.		Department of Supply Chain Management

\* This major is offered by the College of Liberal Arts and Sciences as well.

lower division credit is granted. Such courses may be utilized in the free elective category subject to the 30-hour limitation. Courses taught as vocational or career classes at the community colleges that are not taught in the colleges of business at any one of the state universities are not accepted for credit toward a bachelor's degree. Courses taught in the upper division business core at the state universities must be completed at the degree-granting institution unless transferred from an accredited four-year school. Normal, upper division transfer credits are accepted only from AACSB Internationally accredited schools. To be accepted for credit as part of the professional program in business, all courses transferred from other institutions must carry prerequisites similar to those of the courses they are replacing at ASU.

An Associate in Transfer Partnership degree is available to Maricopa community college students who wish to complete their first two years of course work at a Maricopa community college and transfer to the College of Business without loss of credit. An Associate of Business degree is available to students who wish to complete their first two years of course work at an Arizona community college and transfer to the College of Business without loss of credit. Students should consult with an academic advisor in the Undergraduate Programs Office to plan curriculum requirements and/or access Business Transfer Guides for optimal course selection at [www.asu.edu/provost/articulation](http://www.asu.edu/provost/articulation).

### DEGREES

The faculty in the College of Business offer the B.S. degree in Accountancy, Business Administration (East Campus), Computer Information Systems, Economics, Finance, Management, Marketing, Real Estate, and Supply Chain Management upon successful completion of a four-year curriculum of 120 semester hours. Students may select one of the majors shown in the "College of Business Baccalaureate Degrees and Majors" table on this page. Each major is administered by the academic unit indicated.

### GRADUATE PROGRAMS

The faculty in the College of Business offer graduate degrees as shown in the "College of Business Graduate Degrees and Majors" table, page 159. Students have the opportunity to obtain dual degrees in two years with several

master's degree programs in the College of Business, including these examples:

M.B.A./M.A.I.S.  
M.B.A./M.H.S.A.  
M.B.A./M.S. degree in Information Management  
M.B.A./M.S. degree in Economics  
M.B.A./M.Tax.

Other concurrent degrees available are as follows:

M.B.A./J.D.  
M.B.A./M.Arch.  
M.B.A./M.I.M. with American Graduate School of International Management (Thunderbird, Glendale, AZ); Graduate School of Business Administration, Peru; Graduate School of Commerce (France); Monterrey Institute for Technology and Superior Studies, Mexico State Campus (Mexico); and Carlos III University of Madrid (Spain).

In addition to the full-time M.B.A. program, the evening M.B.A. program offers a high technology M.B.A. at ASU Research Park and an evening M.B.A. at the ASU Downtown Center.

The Executive M.B.A. program is available to those with significant work experience.

For more information about M.B.A. programs, see the *Graduate Catalog*.

### ASU EXTENDED CAMPUS

The College of Extended Education was created in 1990 to extend the resources of ASU throughout Maricopa County, the state, and the region. The College of Extended Education is a university-wide college that oversees the ASU Extended Campus and forms partnerships with other ASU colleges, including the College of Business, to meet the instructional and informational needs of a diverse community.

The ASU Extended Campus goes beyond the boundaries of the university's three physical campuses to provide access to quality academic credit and degree programs for working adults through flexible schedules, a vast network of off-campus sites, classes scheduled days, evenings, and weekends; and innovative delivery technologies including television, the Internet, and Independent Learning. The Extended Campus also offers a variety of professional

## College of Business Graduate Degrees and Majors

Major	Degree	Concentration	Administered By
Accountancy and Information Systems	M.A I.S.		School of Accountancy and Information Management
Business Administration	M.B.A. Ph.D.	— Accountancy, computer information systems, finance, health services research, <sup>1</sup> management, marketing, supply chain management	College of Business College of Business
Economics	M.S., Ph.D.		Department of Economics
Health Services Administration	M.H.S.A.		School of Health Administration and Policy
Information Management	M.S.		School of Accountancy and Information Management
Public Health	M.P.H. <sup>2</sup>	Health administration and policy	School of Health Administration and Policy
Statistics	M.S. <sup>3</sup>		Committee on Statistics
Taxation	M.Tax		School of Accountancy and Information Management

<sup>1</sup> Applications are not being accepted at this time.

<sup>2</sup> This collaborative program is offered by the three state universities. Another concentration is offered by the College of Nursing.

<sup>3</sup> This program is administered by the Graduate College.

continuing education and community outreach programs.

For more information, see "ASU Extended Campus," page 703, or access the Web site at [www.asu.edu/ed](http://www.asu.edu/ed).

## UNIVERSITY GRADUATION REQUIREMENTS

In addition to fulfilling college and major requirements, students must meet all university graduation requirements. For more information, see "University Graduation Requirements," page 79.

## General Studies Requirement

All students enrolled in a baccalaureate degree program must satisfy a university requirement for a minimum of 35 hours of approved course work in General Studies, as described under "General Studies," page 83. Note that all three General Studies awareness areas are required.

General Studies courses are listed in the "General Studies Courses" table, page 86, in the course descriptions, in the *Schedule of Classes*, and in the *Summer Sessions Bulletin*.

## First-Year Composition Requirement

Completion of both ENG 101 and 102 or ENG 105 with a grade of "C" or higher is required for graduation from ASU in any baccalaureate program.

## COLLEGE DEGREE REQUIREMENTS

College degree requirements supplement the General Studies requirement with additional course work from the approved university general studies list or the College of Business Policy statement. Business courses may not be used to fulfill college degree requirements except for ECN 111 and 112 and QBA 221.

A well planned program of study may enable students to complete many General Studies and college degree requirements concurrently. Students are encouraged to

consult with an academic advisor in planning a program to ensure that they comply with all necessary requirements.

Specific courses from the following areas must be taken to fulfill the college degree requirement.

**Social and Behavioral Sciences.** College of Business students must complete ECN 111 and 112, one course with the PGS prefix, and one course with the SOC prefix and may include these courses toward the General Studies requirements.

**Mathematical Studies.** College of Business students must complete MAT 119 and MAT 210 (or a more advanced MAT course) and QBA 221 and may include these courses toward the General Studies requirements.

**Communication.** All students in the College of Business except Accountancy and Management majors must complete COM 100, 230, or 259. Accountancy majors must complete COM 230 (or 100 and 259). Management majors must complete COM 225 (or 259).

**Additional Courses.** Additional courses, as needed to complete 60 hours (54 hours for Accountancy majors), may be selected from the General Studies areas (see "General Studies," page 83) or from the College of Business Policy Statement. Students are encouraged to consult with an academic advisor to ensure that they comply with all necessary requirements. Business courses may not be used to fulfill this requirement except for ECN 111 and 112 and QBA 221.

Library and Inquiry MA mathematics CS computer statistics  
quantitative platform HU humane education SB social and  
behavioral science SG strategy and management SQ natural  
science quantitative C citizenship the United States global  
history culture and society studies page 8

## COLLEGE OF BUSINESS

### Additional Graduation Requirements

In addition to completion of courses outlined under "Major Requirements," on this page, to be eligible for the B.S. degree in the College of Business, a student must have completed at least 30 semester hours at ASU Main:

1. have attained a cumulative GPA of 2.00 or higher for all courses taken at this university, for all business courses taken at this university, and for all courses for the major taken at this university;
2. have earned a "C" or higher in each lower-division core and skill course and each course in the major;
3. have earned a minimum of 51 semester hours in traditional courses that were designed primarily for junior or senior students and were completed in an accredited, four-year institution; and
4. have met all university degree requirements.



Business Administration C-Wing

Tim Trumble photo

**Exceptions.** Any exception to these requirements must be approved by the Standards Committee of the College of Business.

**Declaration of Graduation.** A student in a professional program must complete a Declaration of Graduation during the semester in which the student completes 87 semester hours. The Degree Audit Reporting System should be used to guide the student in accomplishing successful completion of degree requirements in a timely manner. Students who have not met this requirement are prevented from further registration. Some students may be required to complete a Program of Study in place of the Declaration of Graduation. Students should consult their advisors for the proper procedure.

### Pass/Fail

Business majors may not include among the credits required for graduation any courses taken at this university on a pass/fail basis. Pass/fail credits taken at another institution may be petitioned for use, but only if the student can demonstrate proof that the pass grade was equivalent to a "C" or higher.

### MAJOR REQUIREMENTS

Students seeking a B.S. degree in the College of Business must satisfactorily complete a curriculum of 120 semester hours.

A major consists of a pattern of from 18 to 24 semester hours in related courses falling primarily within a given subject field. Available majors are shown in the "College of Business Baccalaureate Degrees and Majors" table, page 158.

**Major Proficiency Requirements.** Students must receive grades of "C" or higher in upper-division courses for the major. If a student receives a grade below "C" in any course in the major, this course must be repeated. If a second grade below "C" is received in either an upper-division course in the major already taken or in a different upper-division course in the major, the student is no longer eligible to take additional upper-division courses in that major. University policy states a course may be repeated only one time.

### Business Core Requirements

The business core is designed to provide an understanding of the fundamentals of business and to develop a broad business background. The faculty in the College of Business designed the core to incorporate the impact on business of information technology and e-business practices. By educating and training students in the use of data-driven decision-making tools and applications software, the college provides greater opportunity for its students. All students seeking a B.S. degree in the College of Business complete the core courses.

The lower-division business core courses provide the fundamental skills needed in professional program courses and introduce students to the supply chain, business processes, and enterprise solutions software in addition to technology skills such as Excel and Access.

### Lower-Division Business Core

ACC 230 Uses of Accounting Information I.....3

ACC 240	Uses of Accounting Information II	3
CIS 201	Computer Applications and Information Technology/CS	3
Lower division business core total		9

The upper division business core provides an enhanced understanding of the digital economy, the business, and business processes in addition to increasing content knowledge and other skills.

#### Upper Division Business Core

BUS 301	Fundamentals of Management Communication I	3
COB 301	Business Fundamentals I	3
FIN 301	Fundamentals of Finance	3
LES 305	Legal, Ethical, and Regulatory Issues Business	3
MGT 300	Organizational Management and Leadership	3
MKT 301	Principles of Marketing	3
SCM 301	Global Supply Operations	3
International business course		3
Upper division business core total		22
Business core total		31

Accountancy, Computer Information Systems, and Management majors should refer to their specific requirements under the "School of Accountancy and Information Management," page 163, and "Department of Management," page 176, which lists variations in the business core courses.

#### Elective Courses

Sufficient elective courses are to be selected by the student to complete the total of 120 semester hours required for graduation.

#### ACADEMIC STANDARDS

**Probation.** All students, freshman through senior, must maintain a minimum GPA of 2.00 for all courses completed at ASU. If these standards are not maintained, the student is placed on probation. Students on probation must see an advisor before further registration.

**Disqualification.** Students on probation must obtain a semester GPA of 2.50 with no grade lower than a "C." If a student on probation meets this requirement but the cumulative GPA remains below 2.00, the student is given an additional semester on continued probation. At the end of continued probation, the student must return to good standing (a GPA of 2.00) to avoid disqualification.

Students who have been academically disqualified are not permitted to enroll in upper division business courses during summer sessions.

**Reinstatement and Readmission.** Students seeking reinstatement (after disqualification) or readmission (after an absence from the university) should contact the Undergraduate Programs Office regarding procedures and guidance for returning to good standing.

**Academic Dishonesty.** The faculty of the College of Business follow the guidelines in the Student Academic Integrity Policy on academic dishonesty. A copy of the policy may be obtained in the Undergraduate Programs Office.

**Student Appeal Procedure on Grades.** The faculty of the College of Business have adopted a policy on the student appeal procedure on grades. A copy of the policy may be obtained in the Undergraduate Programs Office.

#### SPECIAL PROGRAMS

**Academic Access Program.** The primary mission of the Academic Access Program (AAP) is to help the underrepresented and first-generation college student populations of the College of Business successfully navigate the college's rigorous academic demands. To that end, the office manages a number of programs to assist students, including these:

- Academic advising
- Advising ethnic student business organizations
- Mentoring
- Ongoing seminar and workshop series on study, work issues, and strategies
- Referring students to other campus support offices
- Teaching academic success courses COB 194 and 294
- Tutoring

For more information, visit BA 109, call 480 965 4066, or access the AAP Website at [www.cob.asu.edu/up/aap](http://www.cob.asu.edu/up/aap). Faxes can be sent to 480 965 8759.

**Asian Studies.** Students in the College of Business may pursue a program with an emphasis in Asian studies as part of the B.S. degree requirements in business. For more information, visit the Center for Asian Studies, in WHALL 105, or call 480 965 7184.

**Certificate in Small Business and Entrepreneurship.** A curriculum in small business and entrepreneurship is available to business majors at ASU. See "Small Business Programs," page 181.

**Certificate in International Business Studies.** See "Certificate in International Business Studies," page 14, for requirements.

**Certificate in Quality Analysis.** The program of study leading to the Certificate in Quality Analysis prepares students to perform technical analyses associated with quality measurement and improvement of manufacturing and service processes. Graduates with the ability to implement these analyses are in high demand in the marketplace. This program is not a substitute for the listed areas of business specialization; rather, the courses required for the certificate add quantitative strength and implementation skills for quality to the student's chosen field of specialization.

Students are required to complete a bachelor's degree from any of the major fields of study at ASU and to complete a minimum of 15 semester hours of approved coursework, including the following nine hours:

OPM 450	Champion Business Processes	3
QBA 421	Applied Quality Analysis I	3
QBA 421	Applied Quality Analysis II	3

Letter grade: A, B, C, D, F, I, S, W, X, Y, Z, MA, Minat, CS, Computer, IT, C, Quantitative, pp, al, HU, human, e, and, fn, art, SB, o, and, behavior, en, SG, natural, science, e, genera, re, re, SQ, atur, enc, quantitative, C, Leadership, n, e, n, t, e, d, tat, G, b, H, h, s, t, o, r, a, e, Gen, r, St, page 3



## COLLEGE OF BUSINESS

To complete the certificate, the student selects at least six additional hours of course work related to quality analysis approved in advance by the advisor for the certificate program. The student must also complete the 15 hours of course work with a minimum GPA of 2.50.

**Honors Program.** College of Business students who have been admitted to the Barrett Honors College and the professional program are eligible to participate in the Business Honors Program.

The Business Honors Program provides opportunities for academically talented undergraduate business students to interact with other leading students, faculty, and business professionals inside and outside the classroom. The result is a challenging and enriched education experience that is valuable for professional career or graduate work.

To be admitted into the Business Honors Program, students must meet the following criteria:

1. be enrolled in the Barrett Honors College,
2. have a cumulative GPA of 3.40 or higher,
3. be admitted into the college's professional program, and
4. have sufficient time to complete the honors requirements.

Upon acceptance into the program, a valuable learning experience begins. The honors course work consists of HON 171 and 172 The Human Event or HON 394 Special Topics and an additional 15 semester hours of upper division honors courses, including the following six semester hours:

COB 492 Honors Directed Study	3
COB 494 ST: Honors Research	3
493 Honors Thesis	3

See "Honors Courses," page 56, for an explanation of these courses.

The ASU Honors Curriculum normally allows students to complete all requirements within the 120 semester hours of credit required for graduation. All courses taken for honors credit count toward graduation even if the student does not graduate from the Barrett Honors College.

The Business Honors Program emphasizes activities beyond the normal classroom setting in order to broaden the educational experience. Such activities include special honors workshops, student-faculty mixers, and professional seminars and panel discussions. Students are also encouraged to participate in the Mentoring Program, which allows students the opportunity to interact with local business professionals.

An academic advisor is assigned strictly to assist honors students in course selection, to monitor progress toward the honors recognition, and to be actively involved in career and educational guidance upon completion of the degree.

While the program focuses on student involvement in the professional program, freshman and sophomore honors students are offered breakout sections in core classes, are invited to attend selected events, and can be assigned a junior or senior honors advisor.

For more information, see "The Barrett Honors College," page 118, call 480-965-5710, or stop by the Business Honors

Program Office located in BA 300. You may also send taxes to 480-777-7272. More information may be obtained by accessing the Business Honors Program Web site at [www.cob.asu.edu/hon](http://www.cob.asu.edu/hon).

**Internships.** The college encourages students to complement their academic program with career-related work. This practical experience gives students a distinct advantage in the job market when seeking their first full-time professional positions. Additional benefits include industry contacts, a deeper understanding of career options, and monetary compensation that helps students finance their education.

Formal internships and co-ops offer professional work experience and experiential learning opportunities that enrich the student's academic preparation. Students may undertake internships in the summer or part time during semesters. Co-op positions are full time and require a one semester or longer break in school attendance. The college provides guidelines to companies and encourages them to sponsor internship and co-op positions that benefit both the firm and the student. Both benefit because positions are built around projects and challenging responsibilities that enable students to apply learning acquired in advanced business classes.

ASU Career Services and the College of Business work cooperatively to help students identify and obtain career-related work. The process of obtaining internships and co-ops is a learning opportunity. Students use the same job search skills and resources that are utilized to obtain permanent career positions. Informational materials, workshops, and required class activities help students learn job search and career exploration skills and locate internship and co-op opportunities.

Some academic units within the college offer internship courses. Work assignments for these courses must be approved in advance by a designated faculty member, and all internship courses include an academic component.

For more information, visit the Director of Career Planning and Corporate Relations in BA 119-480-965-7326, faculty advisors in the departments or Career Services, or access the College of Business Web site at [www.cob.asu.edu/up/internship.cfm](http://www.cob.asu.edu/up/internship.cfm).

**Latin American Studies Center.** Students in the College of Business may pursue a program with an emphasis in Latin American area studies. For more information, visit the Latin American Studies Center, in SS 213 or call 480-965-5127.

**Prelaw Studies.** Prelaw students may pursue a program of study in the College of Business. Courses in accounting, economics, finance, insurance, labor relations, and statistics are recommended for any student planning to enter the legal profession.

The admission requirements of colleges of law differ considerably. The student should communicate with the dean of the law school the student hopes to attend and should plan a program to meet the requirements of that school. Most law schools, including the ASU College of Law, require a baccalaureate degree for admission.

Students who plan to complete a bachelor's degree before entering law school may follow an area of specialization in

## SCHOOL OF ACCOUNTANCY AND INFORMATION MANAGEMENT

the College of Business. Within the College of Business are faculty members who are lawyers and who serve as advisors for students desiring a prelaw background.

### RESEARCH CENTERS

#### L. William Seidman Research Institute

The College of Business has eight research centers operating under the umbrella of the L. William Seidman Research Institute. The following centers provide support for faculty research, give opportunities for advanced graduate students' involvement with faculty, and provide information and assistance to the business community on a wide variety of subjects:

- Arizona Real Estate Center
- Bank One Economic Outlook Center
- Center for Advanced Purchasing Studies
- Center for the Advancement of Small Business
- Center for Business Research
- Center for Services Leadership
- Institute for Manufacturing Enterprise Systems

The Seidman Research Institute's mission is to encourage and support applied business research by serving as a public access point to the College of Business, by supporting faculty and student research, by transferring new knowledge to the public, by encouraging the development of education programs grounded in applied business research, and by conducting high quality, applied business research.

The institute increases the level of funded research by adding support services to facilitate grant preparation and assistance in grant administration and by facilitating the mission of research centers as liaisons between faculty and businesses. In addition, the institute provides desktop publishing services.

For more information, call 480 965 5362, access the institute's Web site at [www.cob.asu.edu/seid](http://www.cob.asu.edu/seid), or write

L. WILLIAM SEIDMAN RESEARCH INSTITUTE  
PO BOX 874011  
TEMPE AZ 85287 4011

### COLLEGE OF BUSINESS (COB)

#### COB 194 Special Topics. (1–4)

*fa and spring*

#### COB 294 Special Topics. (1–4)

*fa and spring*

#### COB 301 Business Forum. (1)

*fa, spring, summer*

Provides professional program business students with information on careers, interviewing, job hunting, and resume skills. Must be taken in the first semester of the professional program for business students. Prerequisite: professional program business student.

#### COB 380 Small Business Leadership. (3)

*fa, spring, summer*

Develops leadership skills needed to form, lead, and operate a small business. Emphasizes creating a vision, research, and problem solving. Team teaching, collaborative learning. Prerequisites: 2.00 GPA, 47 hours, non business major.

#### COB 381 Small Business Accounting and Finance. (3)

*fa and spring*

Accounting and finance skills needed by small business owners to acquire, allocate, and track monetary resources and evaluate performance. Team teaching, collaborative learning. Prerequisites: COB 380, 2.00 GPA, 56 hours, non business major.

#### COB 382 Small Business Sales and Market Development. (3)

*fa and spring*

Building and maintaining customers, developing a market identity, and analyzing the importance of sales. Team teaching, collaborative learning. Prerequisites: COB 380, 2.00 GPA, 56 hours, non business major.

#### COB 383 Small Business Working Relationships. (3)

*fa and spring*

Addressing communication and the people in a business—clients, employees, suppliers, competitors, governments, family, and self. Development. Team teaching, collaborative learning. Prerequisites: COB 380, 2.00 GPA, 56 hours, non business major.

#### COB 384 Small Business Operations and Planning. (3)

*fa and spring*

Planning and executing plans: the what, when, where, how, and who for production/service project, idea to pay back, or competition. Team teaching, collaborative learning. Prerequisites: COB 380, 2.00 GPA, 56 hours, non business major.

#### COB 394 Special Topics. (1–4)

*fa and spring*

#### COB 492 Honors Directed Study. (2)

*fa and spring*

#### COB 494 Special Topics. (1–4)

*fa and spring*

Topic may include the following:

- Honors Research 1

**Omnibus Courses.** For an explanation of courses offered but not specifically listed in this catalog, see Omnibus Courses, page 56.

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## School of Accountancy and Information Management

[www.cob.asu.edu/acct](http://www.cob.asu.edu/acct)

480 965-3631

BA 223

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### Philip M.J. Reckers, Director

**Professors:** J.R. Boatsman, Christian, Gou, Johnson, Kaplan, Pany, Pe, Philippak, Reckers, Roy, Schultz, Smith, St. Louis, Steinhart, Vinze, Wyndelts

**Associate Professors:** David, Goen, Gupta, Hwang, Iyer, Keim, Ku, Karn, Moecke, O'De, O'Leary, Regier, Whetecotton, Yen

**Assistant Professors:** Chen, Chenoweth, Comprax, Dowling, Lee, O'Donne, Petersen, Ravindran, Robinson, Roussinov, Rowe, Santanam, Shao, Weiss

**Senior Lecturers:** Goodman, Maccracken, Shrednick

**Lecturers:** J.L. Boatsman, Geiger, Hayes, Taylor, Waga

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The School of Accountancy and Information Management houses separate undergraduate degree programs in Accountancy and Computer Information Systems. The

Literacy and literacy MA mathematics CS computer statistics qualitative application HU maintenance and life arts SB social behavior science SGatura e e general core courses SQ natural science quantitative C utua diversity in the United States G globa Hh to ca Spe Genera St de page 83

## COLLEGE OF BUSINESS

school also offers a dual degree program in which students complete requirements for both degree programs (Accountancy and Computer Information Systems) simultaneously. For more information, access the school's Web site at [www.cob.asu.edu/acct](http://www.cob.asu.edu/acct).

### ADMISSION

The School of Accountancy and Information Management follows the College of Business policies and procedures for admission to its undergraduate professional programs in Accountancy, Computer Information Systems, and the concurrent degree program of Accountancy and Computer Information Systems.

To be considered for admission to the Accountancy major, a student must meet the College of Business admission requirements, and have a grade of "C" or higher in an introductory computer programming course as specified by the school. CIS 220 or its equivalent is taken in place of CIS 200.

To be considered for admission to the Computer Information Systems major, a student must meet the College of Business admission requirements and have a grade of "C" or higher in an introductory computer science course as specified by the school, in place of CIS 200.

Due to resource limitations, admission to all of the school's programs is very competitive. Approximately one third of all applicants who apply to the professional programs in Accountancy and Computer Information Systems may be admitted. Applicants are reviewed using a portfolio approach. Among the factors considered are cumulative GPA, ski course GPA, transfer GPA and institution if applicable, work experience, demonstrated community involvement and leadership skills, and responses to questions listed in the professional program application. Current admission statistics are available at the Undergraduate Programs Office in the College of Business.

### ACCOUNTANCY—B.S.

The major in Accountancy includes the essential academic preparation for students who are

1. pursuing professional careers in public, corporate, and governmental accounting,
2. seeking positions in personal financial planning and portfolio analysis;
3. seeking positions in consulting;
4. planning to operate their own businesses; or
5. planning to pursue a graduate degree.

The major in Accountancy consists of the following courses:

ACC 33	Enterprise Process Analysis and Design L	4
ACC 340	External Reporting I	4
ACC 350	Internal Reporting	4
ACC 450	Taxes and Business Decision L	4
ACC 44	External Reporting II	4
ACC 45	Principles of Auditing	4
Total		24

As part of the requirements, all Accountancy majors must complete the following courses:

ACC 250	Introductory Accounting Lab	1
CIS 220	Programming Concepts for Accountancy Majors <sup>1</sup>	3
COM 100	Introduction to Human Communication SB	3
	or COM 230 Small Group Communication SB	3
COM 259	Communication in Business and the Professions	3
ECN 306	Survey of International Economics SB/G <sup>3</sup>	3
ENG 301	Writing for the Professions L <sup>4</sup>	3
	Two approved CIS courses <sup>5</sup>	6
Total		22

CIS 220 is used in the business core in place of CIS 200.

<sup>1</sup> COM 230 is recommended over COM 100.

<sup>3</sup> ECN 306 is counted in the business core in place of the international business course.

<sup>4</sup> ENG 301 is counted in the business core in place of BUS 301.

<sup>5</sup> See the school for a list of approved courses.

Accountancy majors must complete three CIS courses approved by the School of Accountancy and Information Management; one of these courses must be CIS 220 Programming Concepts for Accountancy Majors, which is included within the business core).

### COMPUTER INFORMATION SYSTEMS—B.S.

The major in Computer Information Systems prepares students for professional careers involving the analysis, configuration, programming, and database aspects of the design and implementation of computerized business information systems. The course work prepares the student for a career in business information systems and for admission to graduate programs in information systems or information management.

The major in Computer Information Systems consists of the following courses:

ACC 330	Enterprise Process Analysis and Design L	4
CIS 410	Object Oriented Modeling and Programming	3
CIS 420	Business Database Concepts	3
CIS 430	Networks and Distributed Systems	3
CIS 440	Systems Design and Electronic Commerce L	3
	CIS course in electronic commerce strategy	3
Total		19

All Computer Information Systems majors must complete an introductory computer science course as specified by the school, which may be used as a college requirement, and CIS 235 Business Information Systems Development, which is used in the business core.

### MAJOR PROFICIENCY REQUIREMENTS

In addition to college and university requirements, Accountancy and Computer Information Systems majors must receive grades of "C" or higher in the required upper division major and major support courses. If a student receives a grade below "C" in any required upper division major course, this course must be repeated before any other upper division major course can be taken. If a second grade below "C" is received in either an upper division major course already taken or in a different upper division major course, the student is no longer eligible to take additional upper division major courses.

## SCHOOL OF ACCOUNTANCY AND INFORMATION MANAGEMENT

### GRADUATION REQUIREMENTS

In addition to fulfilling major requirements, students seeking a degree must meet all university and college requirements. See "University Graduation Requirements," page 79, and "College Degree Requirements," page 159.

#### ACCOUNTANCY (ACC)

##### **ACC 230 Uses of Accounting Information I. (3)**

*fa , spring , summer*

Introduces the uses of accounting information focusing on the evolution of the business cycle including hands-on exposure to enterprise systems. Fee. Prerequisite: sophomore standing.

##### **ACC 240 Uses of Accounting Information II. (3)**

*fa , spring , summer*

Introduces the uses of accounting information focusing on the evolution of the business cycle including hands-on exposure to enterprise systems. Prerequisites: ACC 230, sophomore standing.

##### **ACC 250 Introductory Accounting Lab. (1)**

*fa , spring , summer*

Procedural details of accounting for the accumulation of information and generation of reports for internal and external users. Lab. Fee. Prerequisites: ACC 230, sophomore standing.

##### **ACC 315 Financial Accounting and Reporting. (3)**

*fa , and spring*

Accounting theory and practice related to uses of financial statements by external decision makers. Prerequisite: non-Accountancy major. Prerequisites with a grade of C or higher: ACC 240, 250.

##### **ACC 316 Management Uses of Accounting. (3)**

*fa , and spring*

Uses of accounting information for managerial decision making, budgeting, and control. Prerequisites: ACC 240; non-Accountancy major.

##### **ACC 330 Enterprise Process Analysis and Design. (4)**

*fa , spring , summer*

Analysis and design of efficient and effective business processes. Emphasizes taking advantage of new information technologies to improve managerial decision making. 3 hours lecture, 3 hours lab. Fee. Prerequisite: professional program business student majoring in Accountancy or Computer Information Systems.

*General Studies L*

##### **ACC 340 External Reporting I. (4)**

*fa , spring , summer*

Financial accounting theory and practice related to external reporting. 3 hours lecture, 3 hours lab. Fee. Prerequisites: FN 300, professional program business student majoring in Accountancy. Prerequisite with a grade of C or higher: ACC 250, 330.

##### **ACC 350 Internal Reporting. (4)**

*fa , spring , summer*

Internal reporting systems for planning, control, and decision making. 3 hours lecture, 3 hours lab. Prerequisites: SCM 300, professional program business student majoring in Accountancy. Prerequisites with a grade of C or higher: ACC 250, 330.

##### **ACC 394 Special Topics. (1–4)**

*fa , and spring*

Topics may include the following:

- Financial Analysis and Accounting for Small Businesses. 3

##### **ACC 430 Taxes and Business Decisions. (4)**

*fa , spring , summer*

Federal income taxation of sole proprietors, partnerships, corporations, fiduciaries, and individuals with an emphasis on tax consequences of business and investment decisions. 3 hours lecture, 3 hours lab. Prerequisites: LES 305, professional program business student majoring in Accountancy. Prerequisite with a grade of C or higher: ACC 340.

*General Studies L*

##### **ACC 432 Problems in Managerial Accounting. (3)**

*selected semesters*

Cases and computer applications in decision making, planning, and control, and capital budgeting. Prerequisite: professional program business student majoring in Accountancy. Prerequisite with a grade of C or higher: ACC 350.

##### **ACC 440 External Reporting II. (4)**

*fa , spring , summer*

Continuation of ACC 340 with emphasis on the recognition, research, and resolution of financial reporting issues. 3 hours lecture, 3 hours lab. Prerequisite: professional program business student majoring in Accountancy. Prerequisite with a grade of C or higher: ACC 340.

##### **ACC 450 Principles of Auditing. (4)**

*fa , and spring*

Standards and procedures in auditing. Planning, evidence gathering, and accumulation, and reporting. Ethics and legal considerations. 3 hours lecture, 3 hours lab. Fee. Prerequisite: professional program business student majoring in Accountancy. Prerequisite with a grade of C or higher: ACC 440.

##### **ACC 467 Management Advisory Services. (3)**

*selected semesters*

Concepts and methods of providing advisory services with respect to accounting information systems and financial analysis. Administration of consulting practices. Prerequisite: professional program business student majoring in Accountancy. Prerequisite with a grade of C or higher: ACC 330.

##### **ACC 494 Special Topics. (1–4)**

*selected semesters*

##### **ACC 502 Financial Accounting. (3)**

*once a year*

Financial accounting concepts and procedures for external reporting. Prerequisite: M.B.A. degree program student.

##### **ACC 503 Managerial Accounting. (3)**

*once a year*

Managerial accounting concepts and procedures for internal reporting. Prerequisite: M.B.A. degree program student.

##### **ACC 511 Taxes and Business Strategy. (3)**

*once a year*

Economic implications of selected management decisions involving application of federal income tax laws. Recognition of tax hazards and tax saving. Prerequisite: ACC 502 or its equivalent.

##### **ACC 515 Professional Practice Seminar. (3)**

*selected semesters*

History, structure, environment, regulation, and emerging issues of the accounting profession.

##### **ACC 521 Tax Research. (3)**

*once a year*

Tax research source materials and techniques. Application to business and investment decisions. Prerequisite: ACC 430.

##### **ACC 533 Application Solutions in the Connected Economy. (3)**

*once a year*

Analyzes software solutions and evaluation methods. Emphasizes current topics such as enterprise modeling, ERP software, and interorganizational solutions. Prerequisite: M.S. in information management degree program student or M.A.I.S. degree program student.

##### **ACC 541 Strategic Innovations in Information and Cost Management. (3)**

*once a year*

Strategic cost management emphasizing contemporary topics including activity-based costing and strategic uses of information technology systems. Cooperative learning. Lecture. Prerequisite: ACC 503 or M.S. in information management degree program student or M.A.I.S. degree program student.

##### **ACC 567 Financial Models in Accounting Systems. (3)**

*selected semesters*

Development and application of financial models by accountants. Analysis of decisions on support systems as financial modeling environments. Prerequisite: ACC 330.

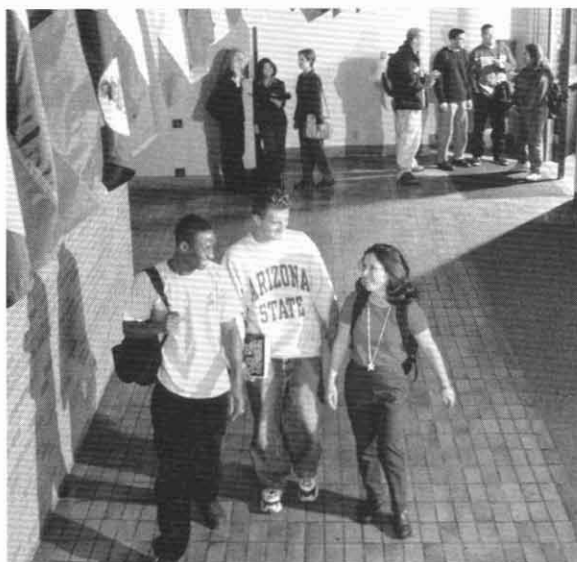
##### **ACC 571 Taxation of Corporations and Shareholders. (3)**

*once a year*

Tax aspects of the formation, operation, reorganization, and liquidation of corporations and the impact on shareholders. Prerequisite: corequisite ACC 521.

Literacy and literacy: MA math/math, CS computer statistics, quantitative applications, HU humanities and fine arts, SB social and behavioral science, SG natural science—general course, SQ natural science, qualitative, Cultural diversity in the United States, Global history. See General Studies, page 83.

## COLLEGE OF BUSINESS



College of Business students (from left) Uchenna Mbano, Michael Hughes, and Danielle Biele

Doug Clouser photo

### **ACC 573 Taxation of Pass-Through Entities. (3)**

*once a year*

Tax aspects of the definition, formation, operation, liquidation, and termination of a partnership. Emphasizes tax planning. Pre- or corequisite: ACC 521.

### **ACC 575 Family Tax Planning and Wealth Transfer Taxation. (3)**

*once a year*

Tax treatment of wealth transfers at death and during lifetime, with emphasis on tax planning. Pre- or corequisite: ACC 521.

### **ACC 577 Taxation of Real Estate Transactions. (3)**

*selected semesters*

Income tax aspects of acquisition, operation, and disposal of real estate: syndications; installment sales; exchanges; dealer-investor issues; alternative financing; and planning. Prerequisite: ACC 521 or instructor approval.

### **ACC 582 Information Security of Interorganizational Systems. (3)**

*selected semesters*

Function and responsibility of the information security officer. Advanced topics in security methods and technology. Prerequisite: M.S. in Information Management degree program student or M.A.I.S. degree program student.

### **ACC 585 Performance Measurement of Emerging Business Models. (3)**

*once a year*

Applies quantitative techniques to accounting problems. Prerequisite: ACC 503 or M.S. in Information Management degree program student or M.A.I.S. degree program student.

### **ACC 586 Shareholder Value Creation and Financial Statement Analysis. (3)**

*once a year*

Develop skills necessary to exploit financial reporting information in a business environment and appreciation of reporting issues faced by management.

### **ACC 587 Business Process Integrity Controls. (3)**

*once a year*

Design and evaluation of computer-based accounting information system. Development of computer-based business models for planning and control. Prerequisite: M.A.I.S. degree program student.

### **ACC 591 Seminar on Selected ACC Topics. (1–12)**

*once a year*

Topics may include the following:

- Computer Security. (3)
- Data Warehouse and Data Mining. (3)

- Electronic Commerce. (3)
- Enterprise Modeling. (3)

**Omnibus Courses.** For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 56.

## **COMPUTER INFORMATION SYSTEMS (CIS)**

### **CIS 200 Computer Applications and Information Technology. (3)**

*fall, spring, summer*

Introduces business information systems and the uses of business application software with emphasis on database and spreadsheet packages. Fee. Prerequisite: MAT 117 or higher.

*General Studies: CS*

### **CIS 220 Programming Concepts for Accountancy Majors. (3)**

*fall, spring, summer*

Introduces business computer programming. Uses programming languages such as Visual BASIC to teach proper programming style and practice. Fee. Prerequisite: prebusiness student.

### **CIS 235 Business Information Systems Development. (3)**

*fall, spring, summer*

Developing information systems and electronic commerce applications using object-oriented languages (e.g., Java). Introduces business technology and systems analysis. Fee. Prerequisites: CSE 181; MAT 119 (or 210).

### **CIS 300 Computers in Business. (3)**

*selected semesters*

Introduces information systems in business. Use of computers for business problem solving. Prerequisites: CIS 200; professional program business student.

### **CIS 335 Visual Paradigms for Information Systems Development. (3)**

*selected semesters*

Uses visual programming languages such as Visual BASIC to implement data structures, file structures, and interfaces in business information systems. Fee. Prerequisites: both CSE 100 and professional program business student majoring in Computer Information Systems or both CIS 220 and professional program business student majoring in Accountancy.

### **CIS 394 Special Topics. (1–4)**

*selected semesters*

See current *Schedule of Classes* for offerings of courses at ASU East.

### **CIS 410 Object-Oriented Modeling and Programming. (3)**

*fall and spring*

Object-oriented modeling of business information systems. Abstract data types and object-oriented programming using a language such as Java. Fee. Prerequisite: professional program business student majoring in Computer Information Systems. Prerequisite with a grade of "C" or higher: CIS 235.

### **CIS 420 Business Database Concepts. (3)**

*fall and spring*

Database theory, design, and application, including the entity-relationship model; the relational, hierarchical, and network database models; and query languages. Fee. Prerequisite: professional program business student majoring in Computer Information Systems or Accountancy. Prerequisite with a grade of "C" or higher: ACC 330.

### **CIS 425 Electronic Commerce Strategy. (3)**

*fall and spring*

Key business strategies and technology elements of contemporary electronic commerce. Covers Web design and interactions between Web pages and databases. Prerequisite: professional program business student majoring in Computer Information Systems or Accountancy. Prerequisite with a grade of "C" or higher: CIS 420.

### **CIS 430 Networks and Distributed Systems. (3)**

*fall and spring*

Advanced topics such as communications protocols, distributed systems, and client-server systems; applications based on platforms such as networked UNIX. Fee. Prerequisites with a grade of "C" or higher: ACC 330, CIS 410, professional program business student majoring in Computer Information Systems. Pre- or corequisite with a grade of "C" or higher: CIS 420.

**CIS 440 Systems Design and Electronic Commerce. (3)**

*fall and spring*

Systems design for organizational and electronic commerce systems, use of project management and systems analysis and design tools. Fee. Prerequisites: professional program business student majoring in Computer Information Systems. Prerequisites with a grade of C or higher: CIS 420, 430 professional program business student majoring in Computer Information Systems.

*General Studies. L*

**CIS 494 Special Topics. (1–4)**

*selected semesters*

**CIS 502 Management Information and Decision Support Systems. (3)**

*once a year*

Fundamentals of computer-based management information and decision support systems. Prerequisite: MBA degree program student.

**CIS 505 Object-Oriented Modeling and Programming. (3)**

*once a year*

Object-oriented modeling of business information systems, abstract data types and object-oriented programming using a visual language. Prerequisite: MIS information Management degree program student or MAIS degree program student.

**CIS 506 Business Database Systems. (3)**

*once a year*

Hierarchical, network, relational and other recent data models for database systems. Processing issues such as concurrency control, query optimization and distributed processing. Prerequisite: MIS information Management degree program student or MAIS degree program student.

**CIS 512 Intelligent Decision Systems and Knowledge Management. (3)**

*once a year*

Definition, description, construction and evaluation of computer-based decision systems. Prerequisite: MIS information Management degree program student or MAIS degree program student.

**CIS 515 Management Information Systems. (3)**

*selected semesters*

System theory concepts applied to the collection, retention, and dissemination of information for management decision making. Prerequisite: MIS information Management degree program student or MAIS degree program student.

**CIS 520 Systems Design and Evaluation. (3)**

*selected semesters*

Methodologies of systems analysis and design. Issues include project management, interface or organizational requirements, constraint documentation, implementation control and performance evaluation. Prerequisite: MIS information Management degree program student or MAIS degree program student.

**CIS 530 Information Systems Development. (3)**

*once a year*

Object-oriented and interprocess communication and control concepts for information system applications based on languages such as C++ and platforms such as networked UNIX. Prerequisite: MIS information Management degree program student or MAIS degree program student.

**CIS 535 Distributed Information Systems. (3)**

*once a year*

Distributed systems and the impact on information system in business. Prerequisite: MIS information Management degree program student or MAIS degree program student.

**CIS 591 Seminar on Selected CIS Topics. (1–12)**

*once a year*

Topics may include the following.

- Computer Security
- Computing Architecture
- Data Warehouse and Data Mining
- Electronic Commerce
- Enterprise Modeling

Prerequisite: MIS information Management degree program student or MAIS degree program student.

**CIS 593 Applied Project. (1–12)**

*once a year*

**Omnibus Courses.** For an explanation of courses offered but not specifically listed in this catalog, see Omnibus Courses, page 56.

## Business Administration

[www.east.asu.edu/ecollege/businessadmin](http://www.east.asu.edu/ecollege/businessadmin)

480 727-1055

CNTR 76

**Roger W. Hutt, Faculty Head**

The primary focus of the Business Administration degree program is the fundamental functions and activities performed in for profit as well as not for profit organizations. The curriculum enables students to gain essential business competencies, knowledge of business disciplines and methods, and appreciation for contemporary business environments and cultures. Students are provided opportunities for additional depth in areas of their choosing. Students are prepared for careers in which a broad background and general knowledge in the field of business are requirements. Graduates may choose to enter one of the areas of business or industry for which their emphasis on business fundamentals has prepared them, to start their own businesses, or to pursue careers with local, state, or federal government. Some graduates choose to continue their education by enrolling in graduate programs or law school.

### BUSINESS ADMINISTRATION—B.S.

Requirements for the Business Administration major consist of 30 hours of lower division core and skill courses, 34 hours of upper-division core courses, and nine hours of advanced business electives. All of the upper division business courses, with the exception of nine hours, must be taken at ASU East.

#### Business Administration Core

EACC 316	Management Uses of Accounting	3
EBUS 304	Professional Development	1
E CIS 494	ST: Information Management	3
EECN 304	ST: Current Issue in Economics	3
EFIN 303	Fundamentals of Finance	3
EIBS 303	Principles of International Business	3
ELIS 303	Legal, Ethical, and Regulatory Issues	3
EMGT 303	Organizational Management and Leadership	3
EMGT 494	ST: Strategic Management	3
E MKT 300	Principles of Marketing	3
ESCM 300	Global Supply Operations	3
ETWC 447	Business Reports I	3
Total		34

Liberal and critical inquiry: **MA** mathematics **CS** computer statistics quantitative application **HU** humanities **SB** social and behavioral science **SG** natural science **OR** other courses **SO** natural science qualitative **C** cultural diversity in the United States **G** global history **EE** general studies page 83

## COLLEGE OF BUSINESS

Students who complete the major requirements may also choose to take additional business courses, related course in ASU East industry specific business programs: Agribusiness, Information and Management Technology, and Aeronautical Management Technology, or special optional nine semester hour extensions of the basic major in our industry specific programs.

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### Department of Economics

[www.cob.asu.edu/ecn](http://www.cob.asu.edu/ecn)

480 965-3531

BAC 659

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**Arthur E. Blakemore, Chair**

**Professors:** Blakemore, Boyes, Brada, Burdick, Burgess, DeSerpa, Faith, Gooding, Happe, Hoffman, Hogan, Kingston, Low, Mane, Maye, McDowe, McPheters, Mevri, Mendez, Ormston, Rogerson, Santos, Schae, Zhou

**Associate Professors:** Ahn, Cogey, Datta, Reffett, Reiser, Wilson, Winkelman

**Assistant Professors:** Chade, Hendricks

**Senior Lecturer:** Roberts

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The study of economics can give students a general knowledge of the ways goods and services are allocated and incomes generated; economics can help students understand why prices, employment, money, and financial markets behave as they do. Some knowledge of economics is crucial not only for students of business but for students pursuing graduate education in law or careers in journalism and communications.

Economists obtain positions at universities and in government financial institutions, brokerage houses, private nonfinancial corporations, international organizations such as the International Monetary Fund and the World Bank, as financial journalists, and as marketing and management specialists in domestic and international firms.

### ECONOMICS—B.S.

Economics majors are required to earn a minimum grade of "C" in MAT 210 Brief Calculus before taking upper division courses in economics. While MAT 210 meets the minimum mathematics requirement to major in Economics, a Economics majors who anticipate going on to graduate school in economics or in business or to law school are encouraged to take MAT 270 Calculus with Analytic Geometry I. Majors are encouraged to pursue further course work in mathematics. MAT 270 may be taken in lieu of MAT 210.

The minor in Economics consists of 15 semester hours of upper division courses in economics. The following six hours must be included:

ECN 313 Intermediate Macroeconomic Theory SB 3  
ECN 314 Intermediate Microeconomic Theory SB 3

ECN 313 and 314 should be taken before other upper division courses in economics. Students must earn a minimum grade of "C" in ECN 313 and 314. Concurrent enrollment in ECN 313 and 314 is permitted. Concurrent enrollment in ECN 313 or 314 and other upper division courses in economics is subject to the approval of the faculty advisor.

### MAJOR PROFICIENCY REQUIREMENTS

Students must receive grades of "C" or higher in upper division courses for the major. If a student receives a grade below "C" in any course in the major, this course must be repeated. If a second grade below "C" is received in either an upper division course in the major already taken or in a different upper division course in the major, the student is no longer eligible to take additional upper division courses in the major.

**Other Economics Programs.** For information on a minor in Economics in the College of Liberal Arts and Sciences, see "Economics," page 367.

For information on the minor in General Economics and on the minor in Economics for Students Planning a Career in Law, see "Minor in Economics for Students Planning a Career in Law," page 367.

### GRADUATION REQUIREMENTS

In addition to fulfilling major requirements, students seeking a degree must meet all university and college requirements. See "University Graduation Requirements," page 79, and "College Degree Requirements," page 159.

### ECONOMICS (ECN)

#### ECN 111 Macroeconomic Principles. (3)

*fall, spring, summer*

Basic macroeconomic analysis. Economic institutions and factors determining income levels, price levels, and employment levels.

*General Studies SB*

#### ECN 112 Microeconomic Principles. (3)

*fall, spring, summer*

Basic microeconomic analysis. Theory of exchange and production, including the theory of the firm.

*General Studies SB*

#### ECN 306 Survey of International Economics. (3)

*fall, spring, summer*

Survey of international trade, international commerce, policy, trade theory, customs unions, and international monetary topics. Not for Economics majors. Lecture/discussion. Co-requisite: BS 306. Credit is awarded for only ECN 306 or BS 306. Prerequisites: ECN 111 or 112, 2.00 ASU GPA, unorthodox.

*General Studies SB G*

#### ECN 313 Intermediate Macroeconomic Theory. (3)

*fall, spring, summer*

Determinants of aggregate levels of employment, output, and income of an economy. Prerequisites: ECN 111, 112. Prerequisite with a grade of C or higher: MAT 210.

*General Studies SB*

#### ECN 314 Intermediate Microeconomic Theory. (3)

*fall, spring, summer*

Role of the price system in organizing economic activity under varying degrees of competition. Prerequisites with a grade of C or higher: ECN 111, 112, MAT 210 or 270.

*General Studies SB*

**ECN 315 Money and Banking. (3)***summer*

Functions of money Monetary systems credit functions banking practices, and central banking policy Cannot be applied to the Economics major Prerequisite ECN 111

**ECN 331 Comparative Economic Systems. (3)***selected semesters*

Alternative institutions past and present for organizing the allocation of labor Property rights information, and incentives in industrial societies Prerequisite ECN 111 or 112

*General Studies SB G***ECN 360 Economic Development. (3)***selected semesters*

Theories of economic growth and development Role of capital formation technological innovation population and resource development in economic growth Prerequisites with a grade of C or higher ECN 111 112

*General Studies SB G***ECN 365 Economics of Russia and Eastern Europe. (3)***selected semesters*

Organizations and analysis of contemporary institutions Comparative development and differentiation in the 20th century Prerequisite ECN 111 or 112

*General Studies SB G***ECN 382 Managerial Economics. (3)***selected semesters*

Applies economic analysis to managerial decisions on making Market analysis in the context of the socio-economic environment Not for Economics majors Lecture/discussion Prerequisites ECN 111 112 2.00 ASU GPA minimum or standing

**ECN 384 Economics of Social Behavior. (3)***once a year*

Applies economic analysis to contemporary behavior decision making on work versus leisure crime medical care macroeconomic policies Not for Economics majors Lecture/discussion Prerequisites ECN 111 112 2.00 ASU GPA minimum or standing

*General Studies SB***ECN 394 Special Topics. (3)***selected semesters*

Current topics of domestic or international interest Analytical emphasis may be macro, micro, or both See current *Schedule of Classes* for offerings Not for Economics majors Prerequisite ECN 111 or 112.

**ECN 404 History of Economic Thought. (3)***once a year*

Development of economic doctrines, theories of mercantilism physiocracy classism neoclassicism Marxism and contemporary economics Prerequisite ECN 314 or instructor approval

*General Studies L SB***ECN 421 Earnings and Employment. (3)***once a year*

Analyses earnings, employment unemployment training education and related topics Emphasizes policy issues Prerequisite ECN 314 or instructor approval

*General Studies L SB***ECN 436 International Trade Theory. (3)***fall and spring*

Comparative advantage doctrine including practices under varying commercial policy approaches Economic impact of international trade equilibrium Prerequisite ECN 314 or instructor approval

*General Studies SB G***ECN 438 International Monetary Economics. (3)***fall and spring*

History theory and policy of international monetary economics Balance of payments and exchange rates international financial markets including foreign exchange markets Prerequisite ECN 313 or instructor approval

*General Studies SB G***ECN 441 Public Finance. (3)***once a year*

Public goods externalities voting model public expenditures taxation and budget formation with emphasis on the federal government. Prerequisite ECN 314 or instructor approval

*General Studies L/SB***ECN 450 Law and Economics. (3)***once a year*

Economics of the legal system including analysis of property contracts torts commercial law and other topics Discussion analysis Prerequisite ECN 314

*General Studies L***ECN 453 Government and Business. (3)***once a year*

Development of public policies toward businesses Antitrust activity Economic effects of government policies Prerequisite ECN 314 or instructor approval

**ECN 480 Introduction to Econometrics. (3)***once a year*

Elements of regression analysis estimation hypothesis tests prediction Emphasizes use of econometric results in assessment of economic theories Prerequisite instructor approval

*General Studies CS***ECN 484 Economist's Internship. (3)***fall spring, summer*

Academic credit for professional work organized through the internship Program. Prerequisites ECN 313 314 minimum cumulative ASU GPA of 3

**ECN 485 Mathematical Economics. (3)***once a year*

Integrates economic analysis and mathematical method into a comprehensive body of knowledge with contemporary economic theory Prerequisite instructor approval

**ECN 493 Honors Thesis. (3)***fall and spring**General Studies L***ECN 494 Special Topics. (1–4)***selected semesters*

Current economic topics of domestic or international interest Analytical emphasis may be macro, micro, or both See current *Schedule of Classes* for offerings Topics may include the following

• Public Choice

Prerequisites both ECN 313 and 314 or on y instructor approval

**ECN 498 Pro-Seminar. (3)***selected semesters*

Topics chosen from current area of interest Prerequisites both ECN 313 and 314 or on y instructor approval

**ECN 502 Managerial Economics. (3)***fall and spring*

Applies microeconomic analysis to managerial decisions on making decisions of demand production cost and pricing Evaluates competitive strategies Prerequisite MBA degree program student

**ECN 503 Global Economics for Managers. (3)***fall and spring*

Macroeconomic analysis of issues related to economic growth inflation interest rates behavior unemployment exchange rate determination and global competitiveness. Prerequisite MBA degree program student

**ECN 504 History of Economic Thought. (3)***once a year*

Historical development of economic theory Emphasizes the development of economic analysis from preclassical economics through Keynes Prerequisite ECN 510 or instructor approval

**ECN 509 Macroeconomic Theory and Applications. (3)***fall*

Theory of income output employment and price level Influence on business and economic environment Prerequisites both ECN 111 and calculus or on y instructor approval

**ECN 510 Microeconomic Theory and Applications. (3)***fall*

Applies economic theory to production consumer demand, exchange, and pricing in a market economy Prerequisites both ECN 112 and calculus or on y instructor approval

Literacy and critical inquiry MA mathematics CS computer statistics quantitative applications HU humanities and fine art SB social and behavioral science SG natural science general education SQ natural science—quantitative CUL diversity the United States G global history See General Studies page 83



## COLLEGE OF BUSINESS

### ECN 511 Macroeconomic Analysis I. (3)

*fa*

Current theories of output, employment, inflation, and asset prices as well as major aggregates. Introduces dynamic optimization techniques. Prerequisites: both ECN 313 and calculus or on y instructor approval

### ECN 512 Microeconomic Analysis I. (3)

*fa*

Theory of production, consumer demand, resource use, and pricing in a market economy. Prerequisites: both ECN 314 and calculus or on y instructor approval

### ECN 513 Macroeconomic Analysis II. (3)

*spring*

Focuses on growth theory, dynamic general equilibrium models, monetary theory, open economy issues. Prerequisite: ECN 511 or instructor approval

### ECN 514 Microeconomic Analysis II. (3)

*spring*

General equilibrium welfare economics, production, and capital theory. Prerequisite: ECN 512 or instructor approval

### ECN 515 Advanced Macroeconomic Analysis. (3)

*fa*

Focuses on current research areas in macroeconomics and monetary theory with emphasis on methods in economic dynamics and numerical techniques. Prerequisite: ECN 511 or instructor approval

### ECN 516 Economics of Uncertainty, Information, and Strategic Behavior. (3)

*fa*

Economic behavior under uncertainty, markets and contracts under asymmetric information, the theory of games with incomplete information, and applications. Prerequisite: ECN 512 or instructor approval

### ECN 517 Monetary Theory. (3)

*fa*

Traditional and post-Keynesian monetary theory, interest rate determination, the demand and supply of money. Prerequisite: ECN 511 or instructor approval

### ECN 521 Labor Economics I. (3)

*spring*

Development of basic theoretical models for analyzing labor market issues. Prerequisite: ECN 510 or instructor approval

### ECN 522 Labor Economics II (3)

*selected semesters*

Extensions or criticism of labor market theories. Applications to a variety of policy issues. Prerequisite: ECN 521

### ECN 525 Econometrics I. (3)

*spring*

Problems in the formulation of econometric models. Emphasizes estimation, hypothesis testing, and forecast of general models. Prerequisite: 6 hours of statistics or instructor approval

### ECN 526 Econometrics II. (3)

*fa*

Estimation and inference of qualitative and limited dependent variable models as well as general multiple equation models. Prerequisite: ECN 525 or instructor approval

### ECN 527 Econometrics II. (3)

*spring*

Generalized method of moments estimation, estimation with censored and truncated sample, non-normally distributed data models, econometrics of nonstationary time series. Prerequisite: ECN 526 or instructor approval

### ECN 536 International Trade Theory. (3)

*spring*

Theories of comparative advantage and the empirical verification of theory and policy. International trade and commerce policy. Resource transfers and the role of multinational corporations. Prerequisites: both ECN 509 and 510 or only instructor approval.

### ECN 538 International Monetary Theory and Policy. (3)

*fa*

Foreign exchange market, balance of payments, and international financial institutions and arrangements. Theory and applications. Prerequisites: both ECN 509 and 510 or only instructor approval

### ECN 541 Public Economics. (3)

*fa*

Economics of collective action, public spending, taxation, and political impact of central government activity on resource allocation and income distribution. Prerequisite: ECN 510 or instructor approval

### ECN 553 Industrial Organization. (3)

*spring*

Analyzes structure, conduct, and performance in industrial markets, the economics of organizations. Prerequisite: ECN 510 or instructor approval

### ECN 560 Economics of Growth and Development. (3)

*fa*

Economic problems, issues, and policy decisions facing the developing nations of the world. Prerequisites: both ECN 509 and 510 or only instructor approval

### ECN 584 Economics Internship. (1-3)

*summer*

Academic credit for professional work organized through the Internship Program. Prerequisites: both ECN 510 and 511 or only instructor approval

### ECN 585 Mathematics for Economists. (3)

*fa*

Survey of mathematical ideas encountered in economics and econometrics, nonlinear programming, the Kuhn-Tucker theorem, concave programming, optimization over time. Prerequisite: calculus or instructor approval

### ECN 591 Economics Seminar. (1-3)

*fa, spring, summer*

Presentations by outside speakers, department faculty, and graduate students of work in progress. Prerequisite: instructor approval

### ECN 593 Applied Projects. (3)

*fa*

Preparation of a supervised applied project typically in conjunction with an internship. Prerequisites: ECN 510, 511

### ECN 594 Conference and Workshop in Economics. (1-12)

*fa*

Workshops offered include economic analysis, macroeconomic analysis, macroeconomics

### ECN 598 Special Topics. (3)

*selected semesters*

Advanced topics in economics. Consult the *Schedule of Classes* for offerings. Prerequisite: instructor approval

**Omnibus Courses.** For an explanation of courses offered but not specified in this catalog, see Omnibus Courses, page 56

## QUANTITATIVE BUSINESS ANALYSIS (QBA)

For more QBA courses, see *Department of Supply Chain Management*

### QBA 221 Statistical Analysis. (3)

*fa, and spring*

Methods of statistical description. Applications of probability theory and statistical inference in business. Prerequisite: MAT 119

*General Studies: CS*

### QBA 321 Applied Quality Analysis I. (3)

*fa*

Apples statistical tools employed in quality analysis. Primary emphasis on regression analysis using a variety of statistical software packages. Prerequisite: QBA 221

*General Studies: L*

### QBA 410 Applied Business Forecasting. (3)

*spring*

Apples forecasting techniques in business and institutional environments. Prerequisite: QBA 221

### QBA 421 Applied Quality Analysis II. (3)

*fa, spring, summer*

Apples statistical tools employed in quality analysis. Topics include experimental design, customer surveys, and process control and capability. Prerequisite: QBA 221

**QBA 502 Managerial Decision Analysis. (3)***fall and spring*

Fundamentals of quantitative analysis to aid management decisions on making under uncertainty. Prerequisites: MAT 210, computer literacy, graduate degree program student.

**QBA 525 Applied Regression Models. (3)***once a year*

Simple linear regression, multiple regression, indicator variables, and logistic regression. Emphasizes business and economic applications. Prerequisite: MAT 210.

**QBA 527 Categorical Data Analysis. (3)***once a year*

Discrete data analysis in business research. Multidimensional contingency tables and other discrete models. Prerequisite: QBA 525.

**QBA 530 Experimental Design. (3)***once a year*

Experimental designs used in business research. Balanced and unbalanced factorial designs, repeated measures designs, and multivariate analysis of variance. Prerequisite: QBA 525 or its equivalent.

**QBA 535 Multivariate Methods. (3)***once a year*

Advanced statistical methods used in business research. Multivariate analysis of association and interdependence. Prerequisite: QBA 525.

**QBA 540 Forecasting. (3)***selected semesters*

Foundation of statistical forecasts and forecast intervals; applications in business and computer-assisted forecasting methods to business forecasting problems. Prerequisites: MAT 210, QBA 502.

**QBA 593 Applied Project. (1-12)***selected semesters***QBA 599 Thesis. (1-12)***selected semesters*

**Omnibus Courses.** For an explanation of courses offered but not specifically listed in this catalog, see Omnibus Courses, page 56.

ACC 315 Financial Accounting and Reporting	3
FIN 331 Financial Markets and Institutions	3
FIN 361 Managerial Finance	3
FIN 42 Security Analysis and Portfolio Management	3
FIN 461 Financial Cases and Modeling	3
On additional 400-level FIN course	3
<b>Total</b>	<b>18</b>

As part of the requirements, all Finance majors must complete ACC 250 Introductory Accounting Lab. Finance majors are strongly advised to take ACC 316 Management Uses of Accounting. FIN 484 Finance Internship is available for nonmajor elective credit.

ACC 250 must be completed before taking ACC 315. FIN 300 must be completed before taking FIN 331 and 361. FIN 331 and 361 and ACC 315 must be completed before taking 400-level FIN courses.

**MAJOR PROFICIENCY REQUIREMENTS**

Students must receive grades of "C" or higher in upper division courses for the major. If a student receives a grade below "C" in any course in the major, this course must be repeated before taking any further courses for which this course is a prerequisite. If a second grade below "C" is received in either an upper division course in the major already taken or in a different upper division course in the major, the student is no longer eligible to take additional upper division courses in that major.

**GRADUATION REQUIREMENTS**

In addition to fulfilling major requirements, students seeking a degree must meet all university and college requirements. See "University Graduation Requirements," page 79, and "College Degree Requirements," page 159.

**Department of Finance**

www.cob.asu.edu/fin

480-965-3131

BAC 519

**Herbert M. Kaufman, Chair****Professors:** Booth, Coes, Kaufman, Poe, Sushka**Associate Professors:** Cesta, Ganger, Hertzke, Hoffmeister, Witt**Assistant Professors:** DeJong, Griffin, Juergens, Marten, Nardar, Perry**FINANCE—B.S.**

The study of finance prepares students to understand the financial implications inherent in virtually all business decisions. Students majoring in Finance are prepared for entry level careers in corporate management, depository institutions, investment management, and financial services. The finance curriculum emphasizes financial markets, evaluation of investments, and efficient allocation of resources. The major in Finance consists of the following courses:

**FINANCE (FIN)****FIN 300 Fundamentals of Finance. (3)***fall, spring, summer*

Theory and problems in financial management of business enterprises. Prerequisites: ACC 240, ECN 112, QBA 221. Pre- or corequisite: SCM 300.

**FIN 331 Financial Markets and Institutions. (3)***fall, spring, summer*

Analyzes financial markets and intermediaries. Theory of financial intermediation, interest rate theory, money and capital market instruments, and government regulation. Prerequisite: professional program business student majoring in Finance. Prerequisite with a grade of "C" or higher: FIN 300.

**FIN 361 Managerial Finance. (3)***fall, spring, summer*

Theories and problems in resource allocation, cost of capital, CAPM, and capital budgeting, asset valuation, capital structure, and financial policy. Prerequisite: professional program business student majoring in Finance. Prerequisite with a grade of "C" or higher: FIN 300.

**FIN 380 Personal Financial Management. (3)***fall, spring, summer*

Dynamic analysis of personal financial planning, including time value of money, stock and bond investment, and retirement and estate planning. Prerequisites: minimum cumulative GPA of 2.00 junior standing, non-Finance major.

Literacy and critical inquiry MA mathematics CS computer statistics qualitative application HU humanities and fine arts SB organization and behavior SG natural science—general courses SQ natural science—quantitative Cultural diversity the United States Global history See General Studies, page 83.

## COLLEGE OF BUSINESS

### **FIN 394 Special Topics. (1-4)**

*selected semesters*

### **FIN 421 Security Analysis and Portfolio Management. (3)**

*fall, spring, summer*

Security analysis theory and practice. Selection and management of financial asset portfolios. Securities markets and portfolio risk-return analysis. Lecture, discussion. Prerequisite: professional program business student majoring in Finance. Prerequisites with a grade of "C" or higher: ACC 315; FIN 331, 361.

### **FIN 427 Derivative Financial Securities. (3)**

*fall, spring, summer*

Study of stock options, index options, convertible securities, financial futures, warrants, subscription rights, and arbitrage pricing theory. Lecture, discussion. Prerequisite: professional program business student majoring in Finance. Prerequisite with a grade of "C" or higher: FIN 421.

### **FIN 431 Management of Financial Institutions. (3)**

*fall, spring, summer*

Asset liability and capital management in financial institutions. Influence of market factors and regulatory agencies. Emphasizes commercial banks. Lecture, discussion. Prerequisite: professional program business student majoring in Finance. Prerequisites with a grade of "C" or higher: ACC 315; FIN 331, 361.

### **FIN 456 International Financial Management. (3)**

*fall, spring, summer*

Exchange rate determination, financial markets, managing multinational corporations, capital budgeting, and hedging currency risk exposure from an international perspective. Prerequisite: professional program business student majoring in Finance. Prerequisites with a grade of "C" or higher: ACC 315; FIN 331, 361.

*General Studies: G*

### **FIN 461 Financial Cases and Modeling. (3)**

*fall and spring*

Case-oriented capstone course in managerial finance. Contemporary issues of liquidity management, capital budgeting, capital structure, and financial strategy. Lecture, discussion, group work. Prerequisite: professional program business student majoring in Finance. Prerequisites with a grade of "C" or higher: ACC 315; FIN 331, 361.

*General Studies: L*

### **FIN 481 Honors Seminar in Finance. (3)**

*once a year*

Honors course covering topics that include theory and applications concerning managerial finance, investments, and financial institutions. Lecture, discussion. Prerequisite: Finance College of Business honors program student. Prerequisites with a grade of "C" or higher: ACC 315; FIN 331, 361.

### **FIN 484 Finance Internship. (3)**

*fall, spring, summer*

Academic credit for field work in finance organized through the internship program. Prerequisites: FIN 331, 361; instructor approval.

### **FIN 494 Special Topics. (1-4)**

*selected semesters*

### **FIN 502 Managerial Finance. (3)**

*once a year*

Financial decision making, including net present value, interest rates, risk and return, efficient capital markets, capital budgeting, and financial forecasting. Lecture, cases, discussion. Prerequisites: ACC 502; ECN 502; QBA 502.

### **FIN 521 Investment Management. (3)**

*once a year*

Valuation of equities and fixed income securities. Trading strategies and portfolio management. Performance evaluation. Trading mechanisms and market organization. Lecture, cases, discussion. Prerequisites: FIN 502, 551.



Lee McPheters, associate dean for Executive and Professional Programs, addresses a business class.

*T. Trumble photo*

**FIN 527 Derivatives and Risk Management. (3)**

*once a year*

Characteristics and pricing of forwards, futures, swaps, options. Applications of instruments for hedging strategies, corporate risk management, and capital budgeting. Lecture, case discussion. Prerequisites: FIN 502, 551

**FIN 531 Financial Markets and Intermediaries. (3)**

*once a year*

How the financial system affects the firm, intermediation and capital markets. Risk management strategies, value at risk and financial instruments. Lecture, cases, discussion. Prerequisites: FIN 521, 527

**FIN 551 Applied Fundamentals Analysis. (3)**

*once a year*

Analysis of financial documents to determine quality of earnings. Forensic financial analysis to diagnose financial health and sustainable growth. Lecture, cases, discussion. Prerequisite: FIN 502

**FIN 556 International Financial Management. (3)**

*once a year*

Behavior of exchange rates, interest rates, inflation rates. Analyzes corporate exposure to exchange rates and hedging strategies. Multicurrency capital budgeting. Lecture, cases, discussion. Prerequisites: FIN 521, 527

**FIN 561 Strategic Financial Management. (3)**

*once a year*

Capstone case-oriented course in strategic applications of corporate finance. Acquisition, allocation, and management of funds within the business enterprise. Cases, discussion. Prerequisites: FIN 531, 556

**FIN 581 Advanced Valuation Methods. (3)**

*once a year*

Analyzes practical aspects of valuing the enterprise using economic value added, free cash flow, and other financial techniques. Lecture, cases, discussion. Prerequisite: FIN 502

**FIN 591 Entrepreneurial Finance. (1-12)**

*once a year*

Applies financial economics principles to solve problems associated with incubating and new ventures. Planning, understanding financial needs, structuring contracts. Lecture, cases, discussion. Prerequisite: FIN 502

**FIN 594 Entrepreneurial Finance. (3)**

*once a year*

Applies financial economics principles to solve problems associated with incubating and new ventures. Planning, understanding financial needs, structuring contracts. Lecture, cases, discussion. Prerequisite: FIN 502

**FIN 781 Theory of Finance. (3)**

*once a year*

Fundamental tools of financial economics: asset pricing, arbitrage, option pricing, capital structure, dividend policy, asymmetric information, and transaction costs. Prerequisites: FIN 502, 521, 531

**FIN 791 Doctoral Seminar in Finance. (1-12)**

*once a year*

Topics may include the following:

- Financial Institutions and Markets: 3  
Economic and monetary theory applied to financial markets and institutions, implications of financial structure for market performance and efficiency.
- Financial Management: 3  
Financial theory pertaining to capital structure, dividend policy, valuation, cost of capital, and capital budgeting.
- Investments: 3  
Investments and market theory, efficient markets hypothesis, option and commodity markets.

Prerequisite: FIN 781

**Omnibus Courses.** For an explanation of course offered but not specifically listed, this catalog, see Omnibus Courses' page 56

## School of Health Administration and Policy

www.cob.asu.edu/hap

480 965-7778

BA 318

Eugene S. Schneller, Director

**Professors:** Forsyth, Johnson, Kirkman, Laff, Schner

**Assistant Professor:** Rivers

While the school does not offer an undergraduate major, a number of courses at the 200 and 400 levels are available to students who have a strong interest in health care, public health, and health policy. Students may enroll in these courses regardless of their undergraduate major. Registration for courses at the 400 level is with permission of the instructor and due to seat availability.

### HEALTH SERVICES ADMINISTRATION (HSA)

**HSA 220 Health Care Organizations. (3)**

*fall and spring*

Overview of United States health care delivery systems, financial, operational, basic principles of budgeting, cost-effectiveness, and resource management. Cross-listed as HCR 220, credit is awarded for only HCR 220 or HSA 220. Prerequisites: both ENG 101 and 102 or only ENG 105.

*General Studies L*

**HSA 498 Pro-Seminar. (1-7)**

*select semesters*

Topics may include the following:

- Health Care Finance: 3
- Health Economics: 3
- Health Service Administration and Policy: 3
- Policy Issues: Health Care: 3

**HSA 502 Health Care Organization. (3)**

*once a year*

Concepts, structures, functions and values which characterize contemporary health care systems in the United States.

**HSA 505 Managerial and Population Epidemiology. (3)**

*once a year*

Quantitative tools to make health care management decisions including biostatistics, epidemiology, and cost-effectiveness analysis. Prerequisite: HSA 561,račourenbačstat

**HSA 512 Health Care Economics. (3)**

*once a year*

Economics of production and distribution of health care services with special emphasis on the impact of regulation, competition, and economic incentives. Prerequisite: HSA 502

**HSA 520 Health Care Organizational Structure and Policy. (3)**

*once a year*

Functional relationships among managerial elements of health care institutions with major focus on hospital governance and policy dynamics. Prerequisite: HSA 502

Literacy and critical inquiry MA math/math CS computer statistics qualitative applications HU mantle and fine art SB social and behavioral science SGatura scenegeneraoreore SQtra ceneg qualitative Cultural destiny of the United States Gglobal History aeeene aStde page 83

## COLLEGE OF BUSINESS

### **HSA 522 Health Care Management Systems. (3)**

*once a year*

Systems concepts, quantitative methods, and information systems applied to management problems in health institutions and community health planning. Prerequisites: HSA 505, QBA 502

### **HSA 532 Financial Management of Health Services. (3)**

*once a year*

Acquisition, allocation, and management of financial resources within the health care enterprise. Budgeting, cost analysis, financial planning, and internal controls. Prerequisites: ACC 533, FIN 502, HSA 502

### **HSA 540 Health Care Outcomes. (3)**

*once a year*

Project-oriented course on application of efficiency-based methods for the evaluation of the outcomes of health care. Seminar and individual student research. Prerequisite: HSA 512 or enrollment in Ph.D. program

### **HSA 542 Health Care Jurisprudence. (3)**

*once a year*

Legal aspects of health care delivery for hospital and health services administration. Legal responsibilities of the hospital administrator and staff. Prerequisites: HSA 505, 520.

### **HSA 560 Health Services Administration and Policy. (3)**

*fall and spring*

Introduces organizational theory and management of complex organizations within the historical and contemporary contexts of the U.S. public health.

### **HSA 561 Biostatistics. (3)**

*fall*

Aspects of descriptive statistics and statistical inference most relevant to health issues, including data, rates, and confidence intervals.

### **HSA 562 Health Care Organization and Systems. (3)**

*once a year*

Functional relationships among managerial elements of health care institutions with major focus on hospital governance and policy dynamics.

### **HSA 563 Economics for Public Health Management. (3)**

*fall*

Introduces concepts and methods used to direct and understand production and distribution of health care services.

### **HSA 564 Health Care Finance. (3)**

*once a year*

Overview of the acquisition, allocation, and management of financial resources by health care providers. Focuses on economic, financial, and accounting principles.

### **HSA 565 Policy Issues in Health Care. (3)**

*once a year*

Current policy issues in health through concepts of access, cost, and quality issues relating to disease trends and policy formulation.

### **HSA 566 Basic Principles of Epidemiology. (3)**

*spring*

Basic principles of epidemiology, evaluation of etiology, natural history, intervention therapy, and disease prevention. Lecture/lab. Prerequisite: Master of Public Health major instructor approval.

### **HSA 571 Managed Care. (3)**

*selected semesters*

Trends in managed care integrated systems, complexities of business objectives, e.g., financial and quality. A two-semester ongoing marketplace simulation. Prerequisite: HSA 502.

### **HSA 573 Comparative Health Systems. (3)**

*once a year*

Comparison of health care financing and delivery in industrialized countries, covers insurance, hospital management, and physician payment. Lecture/discussion.

### **HSA 575 Chronic Care Administration. (3)**

*selected semesters*

Management of long-term care services and facilities including behavioral health and rehabilitation program.

### **HSA 589 Integrative Seminar. (3)**

*fall, spring, summer*

Capstone assesses merit of current policies, problems, and controversies across the broad spectrum of health services administration. Prerequisites: HSA 505, 520, 522, 532.

### **HSA 591 Seminar. (1–12)**

*once a year*

Topic may include the following:

- Behavioral Health
- Cost Containment and Quality Assurance
- Health Care Economic Outcomes
- Health Care Policy
- Managing Physicians
- Topics in Health Services Research

### **HSA 593 Applied Project. (3)**

*fall, spring, summer*

Optional course experience in advanced development of managerial skills in health service administration and policy. Minimum of 10 weeks. Prerequisites: 18 hours of credit toward program of study director approval.

### **HSA 598 Special Topics. (1–4)**

*once a year*

Topics may include the following:

- Epidemiology

**Omnibus Courses.** For an explanation of courses offered but not specifically listed in this catalog, see Omnibus Courses, page 56.

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## International Business Studies

[www.cob.asu.edu/up ipo.cfm](http://www.cob.asu.edu/up ipo.cfm)

480.965-0596

BA 109

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Josef C. Brada, Director

Adela Gasca, Coordinator

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### **Certificate in International Business Studies**

The program of study leading to the Certificate in International Business Studies is designed to prepare students for positions with multinational firms, banks, government agencies, and international organizations. This program is not a substitute for the listed areas of business specialization; rather, the courses required for the certificate add an international dimension to the student's chosen major.

Requirements for the certificate are designed to provide an understanding of international business environments, principles and operations, to provide an awareness of global social processes and a sensitivity to foreign cultures, and to develop competence in a foreign language. These objectives are met in the following ways: international business principles and operations, global and area studies, foreign language, and GPA proficiency.

**International Business Principles and Operations.** At least 13 semester hours of approved courses in international business are required. Students must take either IBS 300 Principles of International Business or ECN/IBS 306 Survey of International Economics and the international course in their major. Other international business courses from which the remaining hours are selected include

ECN 306	Survey of International Economics <i>SB G</i> . . . . .	3
	or IBS 306 Survey of International Economics <i>SB G</i> 3	
ECN 331	Comparative Economic Systems <i>SB G*</i> . . . . .	3
ECN 360	Economic Development <i>SB G*</i> . . . . .	3
ECN 365	Economics of Russia and Eastern Europe <i>SB G*</i> . . . . .	3
ECN 436	International Trade Theory <i>SB, G*</i> . . . . .	3
ECN 438	International Monetary Economics <i>SB G*</i> . . . . .	3
FIN 456	International Financial Management <i>G*</i> . . . . .	3
IBS 300	Principles of International Business <i>G*</i> . . . . .	3
IBS 394	ST: Economics of Latin America . . . . .	3
IBS 394	ST: Regional Business Environment of Southeast Asia . . . . .	3
	or IBS 494 ST: Regional Business Environment of Southeast Asia 3	
IBS 400	Cultural Factors in International Business <i>C G*</i> . . . . .	3
	or MGT 494 ST: Cultural Factors in International Business 3	
IBS 484	International Business Internship . . . . .	3
IBS 493	International Honors Thesis <i>L*</i> . . . . .	3
IBS 499	Individualized Instruction of International Business . . . . .	3
MGT 459	International Management . . . . .	3
	or IBS 494 ST: International Management 3	
MGT 494	ST: Applied International Management . . . . .	3
MKT 394	ST: Global Markets . . . . .	3
MKT 435	International Marketing . . . . .	3
MKT 494	ST: Applied International Marketing . . . . .	4
SCM 465	Global Supply Chain Management . . . . .	3

College of Business students may not use this course to fulfill the 60 semester hours in college degree requirements

Honors students who select an international topic for their thesis may use that as part of the 15 hours of international course work for the certificate.

**Global and Area Studies.** This requirement can be satisfied either by means of course work or through participation in approved College of Business exchange programs with foreign schools of business, or by some combination of the two. The course work option requires at least 12 semester hours of approved electives in international and area studies. A minimum of six semester hours must be in courses that provide a cross cultural perspective from the global point of view of one or more disciplines. A minimum of six semester hours must be in courses that provide an understanding of one region of the world.

The College of Business has exchange agreements with universities in Chile, France, Germany, Italy, Mexico, Spain, and the United Kingdom. Students who participate in an approved College of Business exchange program with a foreign business school for two semesters are deemed to have fulfilled the global and area studies requirements of the Certificate in International Business upon the successful completion of this exchange program. Students who participate in such an exchange program for one semester are deemed to have satisfied the required six hours of area studies courses. Students who participate in a business seminar need to complete only three hours of area studies courses to meet the requirements of the certificate.

**Foreign Language.** Evidence of competence in a foreign language equivalent to one year of college study is required.

**Additional Requirements.** Applicants for the Certificate in

International Business must earn a "C" or higher in each of the courses selected for the certificate, have at least a 2.50 GPA for all course work applied to the certificate, and complete at least 50 percent of the course work at ASU Main.

**Advising.** When planning and selecting courses to meet the requirements for the certificate and to take advantage of opportunities for participation in exchanges with foreign schools of business, students should consult with an international business faculty advisor or the coordinator of international programs, in BA 109. For more information, call 480 965 0596, or access the Web site at [www.cob.asu.edu](http://www.cob.asu.edu) up ipo cfm

## INTERNATIONAL BUSINESS STUDIES (IBS)

### IBS 300 Principles of International Business. (3)

*fa spring summer*

Multidisciplinary analysis of international economic and financial environment. Operations of multinational firms and the interaction with home and host societies. Prerequisite: ECN 112

*General Studies G*

### IBS 306 Survey of International Economics. (3)

*fa and spring*

Survey of international trade issues: commercial policy, trade theory, customs unions, and international monetary topics. Not for Economics majors. Lecture/discussion. Cross-listed as ECN 306. Credits awarded for only ECN 306 or BS 306. Prerequisites: ECN 111 or 112 2.0 ASU GPA junior or standing

*General Studies SB G*

### IBS 394 Special Topics. (1-4)

*fa and spring*

Topics may include the following:

- Economics of Latin America 3
- Regional Business Environment of Southeast Asia 3

Prerequisites: 2.00 ASU GPA junior or standing

### IBS 400 Cultural Factors in International Business. (3)

*fa spring summer*

Cultural role in international business relations, application principles of cross-cultural communications, negotiations, and management; regional approaches to business relations. Prerequisites: BS 300 306 or ECN 306

*General Studies C G*

### IBS 484 International Business Internship. (3)

*selected semesters*

Academic credit for professional work organized through the international program. Prerequisites: BS 300 or 306 or ECN 306 professional program business student senior minimum cumulative ASU GPA of 3.40 minimum ASU business GPA of 3.40

### IBS 493 International Honors Thesis. (3)

*fa and spring*

*General Studies L*

### IBS 494 Special Topics. (1-4)

*fa and spring*

Topics may include the following:

- International Management 3
- Prerequisite: BS 300 or MGT 300
- Multinational Management 3
- Regional Business Environment of Southeast Asia 3
- Credits awarded for only BS 494 ST: International Management or ST: Multinational Management or MGT 459

### IBS 499 Individualized Instruction of International Business. (3)

*fa and spring*

**Omnibus Courses.** For an explanation of courses offered but not specifically listed in this catalog, see Omnibus Courses page 56

Letteracy/dicta/quantity **MA** mathematical **CS** computer/statistics qualitative application **HU** humanities/ad/feat **SB** social behavior/science **SG** strategy/ancestral/general/core/courses **SQ** natural/science/qualitative **C** cultural/diversity/in the United States **G** global history/race See also a Student page 8

## Department of Management

www.cob.asu.edu/mgt

480 965-3431

BA 323

**William H. Glick, Chair**

**Professors:** Ashforth, Bohlander, Cardy, Dooey, Glick, Gomez-Mejia, Hershauer, Hitt, Hom, Knick, Kuk, Penney, V. Smith, Danes

**Associate Professors:** Boyd, Brenenstuh, Carman, Cho, Cook, Homan, Keats, Keir, Moorhead, Ovas, Roberson, Rungtusanatham, D. Smith, Danes, Van Hook

**Assistant Professors:** Bancero, Koka, Lane

**Clinical Professor:** Kem

**Lecturer:** Davila

The faculty in the ASU Department of Management is widely recognized for the work in the areas of operations management, organizational behavior, human resource management, and strategic management. Faculty members emphasize high-tech management, knowledge management, quality, process and project management, strategic alliances, value chain analysis, global supply operations, globalization, diversity, small business and entrepreneurship, change management, organizational identity, corporate governance, and human resource management practices in their research, consulting, and teaching.

Department of Management faculty take great pride in their teaching excellence and have been very active in continuing to improve collaborative teaching techniques. Even management faculty members and teaching assistants have won recent college, university, and international awards for their excellence in teaching effectiveness.

### MANAGEMENT—B.S.

Business in the 21st century calls for managers who are dynamic leaders and effective team builders. The leaders of companies that are succeeding in the new marketplace possess excellent written and oral communications skills and experience in guiding collaborative teams. After analyzing surveys of students, graduates, and their employers and after many insightful discussions with executives and recruiters, the department concluded that the Management major should have a strong emphasis on collaboration, leadership, communication, team building, and major group projects with the community in both not-for-profit and business settings. The newly revised curriculum begins with the global supply operations course as an immersion in the fundamentals of the global economy, the world of business and collaborative teams. Students are encouraged to concurrently enroll in the introductory courses on collaborative team skills and managing people in organizations during their

first semester. Throughout the program, understanding of theory and concepts of management are enhanced by experiencing and testing these concepts in skill-based exercises, case discussions, and team-based project work in the classroom and in the community.

The Management major prepares men and women for managerial leadership in a world characterized by the fast pace of the business; demands for continuous process improvements to enhance the value chain; growing technological sophistication; racial, cultural, and gender diversity in the workforce; and the need for skills in communication and working with people, managing projects, and managing change. Graduates with these skills are likely to be recruited by management consulting firms, high-tech firms, service and manufacturing firms for profit and not-for-profit organizations, and large and small organizations. These employers will recruit Management graduates for challenging trainee positions or entry-level management positions and immediately benefit from their preparation.

### Program Requirements

The major in Management consists of the following courses:

MGT 330	Managing People in Organizations	3
MGT 410	Responsible Leadership	3
MGT 420	Performance Management	3
OPM 450	Creating Business Processes	3
MGT 460	Strategic Leadership	3
	Management electives	6
<b>Total</b>		<b>21</b>

Management electives must be selected from the approved list of Management electives.

All Management majors must complete the following specific courses that fulfill other pre-business or professional program requirements:

MGT 310	Collaborative Team Skills	3
ENG 301	Writing for the Profession	3
COM 225	Public Speaking	3
	or COM 259 Communication in Business and the Professions	3
IBS 300	Principles of International Business	3
<b>Total</b>		<b>12</b>

MGT 310 is counted in place of MGT 300 in the business core.

<sup>2</sup> ENG 301 is counted in the business core in place of BUS 301. COM 225 is recommended over COM 259. Either is counted in the college communication requirement.

<sup>4</sup> IBS 300 is counted in the business core in place of the international business course.

**Approved Electives for Management.** The following electives have been approved for the management major:

ACC 316 Management Use of Accounting	3
IBS 403 Cultural Factors in International Business	3
MGT 413 Competition Management	3
MGT 423 Employee Management Relations	3
MGT 433 Management Decision Analysis	3
MGT 44 Small Business and Entrepreneurship	3
MGT 445 Business Plan Development	3
MGT 459 International Management	3
MGT 484 Management Internship	3
MGT 494 Special Topics	3
MKT 302 Fundamentals of Marketing Management	3
OPM 484 Operations Management Internship	3
OPM 494 Special Topics	3

**Undergraduate Internships in Management.** The Department of Management strongly supports the concept of student internships, believing all students can benefit from the experience. Undergraduate internships in management provide an opportunity for students to gain on the job work experience related to their academic preparation and to increase their employment potential at graduation. For more information about the management internship program and the application process, access the department internship Web site at [www.cob.asu.edu/mgt/internships.cfm](http://www.cob.asu.edu/mgt/internships.cfm). Management majors may use a maximum of three semester hours of MGT 484 or OPM 484 for the major. Any additional internship credits may be used for nonmanagement electives.

**Certificates.** The Department of Management also strongly supports certification in key areas that strengthen the Management degree and help to differentiate individual students for recruiters. The certificates allow students to gain particular analytical skills related to their education and to increase their employment prospects. Certificates that are particularly relevant to Management majors include the Certificate in Quality Analysis (see [www.cob.asu.edu/upqa/certificate.cfm](http://www.cob.asu.edu/upqa/certificate.cfm)), the International Business Certificate (see [www.cob.asu.edu/upipo/ibc.cfm](http://www.cob.asu.edu/upipo/ibc.cfm)); and the Certificate in Small Business and Entrepreneurship (see [www.cob.asu.edu/upsmallbusiness.cfm](http://www.cob.asu.edu/upsmallbusiness.cfm)).

**Hot Links to Major in Management.** More information, hot links to courses and faculty, and any updates on the undergraduate major in Management can be found on the Web at [www.cob.asu.edu/mgt](http://www.cob.asu.edu/mgt).

### Major Proficiency Requirements

Students must receive grades of "C" or better in upper division courses for the major. If a student receives a grade below "C" in any course in the major, the course must be repeated. If a second grade below "C" is received in either an upper division course in the major already taken or in a different upper division course in the major, the student is no longer eligible to take additional upper division courses in that major.

### Graduation Requirements

In addition to fulfilling major requirements, students seeking a degree must meet all university and college requirements. See "University Graduation Requirements," page 79, and "College Degree Requirements," page 59.

## GRADUATE PROGRAMS

The Department of Management participates actively in several master's and Ph.D. programs, particularly the technology M.B.A., executive M.B.A., evening M.B.A., and day M.B.A. programs. For a detailed description of these programs, see the *Graduate Catalog*. Areas of specialization offered by the Department of Management for technology and evening M.B.A. students include process management in high technology organizations, globalization and diversity management, entrepreneurship and small business development, and management consulting.

The Department of Management has adopted a modular approach to Ph.D. education to improve our ability to deliver focused, high quality seminars, give students more flexibility in defining their areas of expertise, increase their rate of quality publications, and enhance the quality of Ph.D. placements.

**Hot Links to Graduate Programs.** More information, hot links to courses and faculty, and any updates on the Department of Management areas of specialization for the M.B.A. programs can be found on the Web at [www.cob.asu.edu/mba](http://www.cob.asu.edu/mba).

General information on the M.B.A. programs can be found on the Web at [www.cob.asu.edu/mba](http://www.cob.asu.edu/mba).

More information, application procedures, hot links to faculty and any updates on the Ph.D. program in Management can be found on the Web at [www.cob.asu.edu/mgt/phd](http://www.cob.asu.edu/mgt/phd).

## MANAGEMENT (MGT)

### MGT 300 Organizational Management and Leadership. (3)

*fall/spring/summer*

Analysis of strategic behavior and human resource management perspectives including principles of strategic management and leadership of human resources. Prerequisites: a course in psychology, social and behavioral and a course in sociology. Prerequisite: SCM 300.

### MGT 310 Collaborative Team Skills. (3)

*fall/spring/summer*

Development of skills in managing and working in collaborative environments. Theories and applications in small group dynamics and team facilitation, interactive learner-centered. Prerequisite: professional program business student majoring in Management. Prerequisite for nonmajors: instructor approval. Corequisite: MGT 320, SCM 300.

### MGT 320 Managing People in Organizations. (3)

*fall/spring/summer*

Management processes, fundamentals of business development strategy, individual differences, issues, motivation and leadership of people in organizations. Lecture/discussion, interactive learner-centered. Prerequisite: professional program business student majoring in Management. Prerequisite for nonmajors: instructor approval. Corequisite: MGT 310, SCM 300.

### MGT 380 Management and Strategy for Nonmajors. (3)

*fall/spring/summer*

Introduces the functions and applications of management in organizations, including controlling decisions making, leadership, motivation, planning, and social responsibility.

### MGT 394 Special Topics. (3)

*selected semesters*

Literacy and critical inquiry MA: management CS: computer statistics qualitative applications HU: human and fine arts SB: social behavior and scene SG: natural science general core courses SQ: qualitative evaluation C: cultural diversity in the United States GG: global H: history See General Studies page 83.



## COLLEGE OF BUSINESS

### **MGT 410 Responsible Leadership. (3)**

*fa spring summer*

Values core beliefs, legal and ethical mandates and cultural norms as they apply to the conduct of organizational applications through a Service Learning project: interactive learner-centered. Prerequisites: MGT 310, 320

### **MGT 413 Compensation Management. (3)**

*fa and spring*

Establishing base and incentive pay with job analysis, job evaluation and wage surveys; performance appraisal; performance to compensation awards. Prerequisite: MGT 420

### **MGT 420 Performance Management. (3)**

*fa spring summer*

Development of skills and knowledge to lead associates effectively through developing evaluation, retention and rewarding employee. Preparation for leader roles. Lecture/discussion/interactive, learner-centered. Prerequisites: MGT 310, 320

### **MGT 423 Employee-Management Relations. (3)**

*fa and spring*

Employment relationship on nonunion setting. Employee management rights, responsibilities, compensation, administration, negotiations, union structure and mock negotiations. Prerequisites: MGT 310, 320

### **MGT 433 Management Decision Analysis. (3)**

*fa and spring*

Decisions making concepts and methods: the private and public sectors and their application to organizational problems. Understanding of individual and group decisions making. Prerequisites: only MGT 300 or both MGT 310 and 320

### **MGT 440 Small Business and Entrepreneurship. (3)**

*fa and spring*

Opportunities, risks and problems associated with small business development and operation

### **MGT 445 Business Plan Development. (3)**

*fa and spring*

Develops a complete strategic business plan emphasizing the planning process undertaken by successful small business owners and entrepreneurs. Lecture/discussion/exercise. Prerequisite: MGT 44

### **MGT 459 International Management. (3)**

*fa spring*

Concepts and practices of multinational and foreign firms. Objectives, strategies, policies and organizational structures for operating in various environments. Credit is awarded for only MGT 459 or BS 494 ST International Management or ST Multinational Management. Prerequisite: IBS 300

### **MGT 460 Strategic Leadership. (3)**

*fa spring summer*

Systems theory of organizations, strategy formulation and administration on organizations, creating organizational coherence, and leading change within organizations. Lecture/case exercises. Prerequisite: MGT 410, 420, completion of 10 hours including a business administration core requirements. Prerequisite: OPM 450

### **MGT 484 Management Internship. (3)**

*fa spring, summer*

Internships are strongly recommended to improve employment potential. The Department of Management internship coordinator must approve all internships to receive credit.

### **MGT 494 Special Topics. (1-4)**

*selected semesters*

Current topics in management primarily designed for business majors. See the *Schedule of Classes* for current offerings of course at AS. Management and East Topics may include the following:

- Applied International Management 3
- Cultural Factors in International Business 3

Prerequisite: BS 300 or 494 or MGT 300 or 459

### **MGT 499 Individualized Instruction. (1-3)**

*selected semesters*

### **MGT 502 Organization Theory and Behavior. (3)**

*once a year*

Important concepts and applications in management including communication decisions making, group dynamics, leadership, motivation

organizational change and organizational design. Prerequisites: computer literacy, graduate degree program student

### **MGT 522 Human Resource Activity and the Management of Diversity. (3)**

*once a year*

Applies general and human resource management principles to work effectively with a diverse spectrum of people. Discussion/exercise. Prerequisite: M.B.A. degree program student

### **MGT 523 Managing People for Service Advantage. (3)**

*once a year*

Covers HRM practices that are conducive to building and maintaining internal customer equity and maximizing external customer service. Discussion/exercise/case exercises. Prerequisite: M.B.A. degree program student.

### **MGT 559 International Management. (2-3)**

*once a year*

Studies international and cross-cultural influences on management processes and development of global leadership capabilities for experienced management professionals. Discussion/company analyses/case analyses/lecture/guest speakers. Prerequisite: M.B.A. degree program student.

### **MGT 561 Advanced Integrated Project. (2-3)**

*once a year*

Capstone project of the high technology ASU M.B.A. Student team develops business plans for new technology based products. On project. Prerequisite: M.B.A. degree program student

### **MGT 570 Management Consulting. (3)**

*once a year*

Develops understanding of how internal and external consultant add value. Prerequisite: ability to use common business software including Microsoft Office familiarity with spreadsheets

### **MGT 589 Strategic Management. (3-4)**

*spring*

Formulation of strategy and policy in the organization emphasizing the integration of decisions with the functional areas. Prerequisite: M.B.A. degree program student

### **MGT 591 Seminar. (1-12)**

*selected semesters*

Topics may include the following:

- Business Plan Competition 3
- Entrepreneurship 3
- Human Resource Management and Service Delivery 3
- Human Resources and High Technology Management 3
- Organizational Change and Business Process Consulting 3

### **MGT 593 Applied Projects. (3)**

*once a year*

Cross functional teams initiate projects by implementing organizational change within a local firm. Lecture/discussion/experimentation. Prerequisite: a core courses in the M.B.A. program

### **MGT 598 Special Topics. (3)**

*selected semesters*

Graduate-level topics chosen from human resources, strategic management and international management, including special topics in international management in a role. Prerequisite: instructor approval

### **MGT 791 Seminar: Doctoral Seminar in Management. (1-12)**

*selected semesters*

Short module seminars. Topics may include the following:

- Causality Modeling 1
- Change and Coping 1
- Cognitive and Macro Perspectives 1
- Dysfunction in Workplace 1
- Economic Theories of the Firm 1
- Levels of Analysis 1
- Motivation and Attitudes 1
- Organizational Identity and Definition 1
- Organizational Learning and Organizational Identity 1
- Organizational Performance and Reward System 1
- Organizational Strategy and Culture 1
- Organizational Structure, Technology and Information Systems 1
- Organizational Withdrawal 1
- Performance Appraisal 1
- Power and Organizational Change 1
- Selection 1

- Strategy Overview 1
- Teams Groups and Leadership 1
- The Craft of Research 1

**Omnibus Courses.** For an explanation of courses offered but not specifically listed in this catalog, see Omnibus Course page 56

## OPERATIONS MANAGEMENT (OPM)

### OPM 450 Changing Business Processes. (3)

*fall, spring, summer*

Describes and analyzes business processes. Generate and evaluate alternatives. Creates improvement and implementation plan. Prerequisite: completion of 100 hours including a business administration core requirement. Prerequisite: FIN 461 or MGT 460 or MKT 460 or SCM 479 or any other recommended business integrative course.

*General Studies L*

### OPM 484 Operations Management Internship. (3)

*fall, spring, summer*

Internships are strongly recommended to improve employment potential. The Department of Management Internship coordinator must approve a student to receive credit.

### OPM 494 Special Topics. (1–4)

*selected semesters*

Current topics in operations management primarily designed for business majors. See the *Schedule of Classes* for current offerings. Topics may include the following:

- Project Management 3
- Management of Technology 3

### OPM 540 Quality and Productivity Management. (3)

*once a year*

Organizational factors influencing quality and productivity in the production of goods and services. Quality and productivity strategies, improvement program and measurement systems. Prerequisite: SCM 502 or instructor approval.

### OPM 581 Management of Technology and Innovation. (3)

*once a year*

Technology cycles, technology forecasting, new product development process, organizational innovation best practice. Prerequisite: M.B.A. degree program student.

### OPM 583 Project Management in Service Organizations. (2–3)

*once a year*

Project management planning, leadership and control, service organizations. Discussion, lecture, class exercises, cases. Prerequisite: M.B.A. degree program student.

### OPM 585 Facilities Design and Management of Technology. (3)

*once a year*

Designs regarding management of facilities and technology for manufacturing and service firms. Facility location, layout, process design, and selection.

### OPM 586 High-Technology Project Management. (2–3)

*fall*

Project management processes for high technology organizations including planning, scheduling, team development and control. Prerequisite: M.B.A. degree program student.

### OPM 587 Project Management (3)

*once a year*

Planning, scheduling and controlling of projects in R & D, manufacturing, construction, and services. Project selection, financial considerations, and resource management. Prerequisite: QBA 522.

### OPM 588 Strategic Project Management. (2–3)

*fall*

Overview of strategic project management processes, project planning and control, project portfolio management, resource allocation, management of strategic project partners. Discussion, lecture, cases, exercises. Prerequisite: M.B.A. degree program student.

### OPM 591 Seminar. (1–12)

*once a year*

Topics may include the following:

- High Performance Management Processes 3
- Management of Technology 3
- Manufacturing Management in High Technology 3
- Manufacturing Strategy 3

- New Product and Process Development 3
- Technology Project Management 3

### OPM 593 Applied Projects. (3)

*once a year*

Cross functional teams initiate, possibly implement organizational change within a local firm. Lecture, discussion, experiential learning. Prerequisite: all core courses in the M.B.A. program.

### OPM 791 Doctoral Seminars in Operations and Production Management. (1–12)

*selected semesters*

Short module seminars. Topics may include the following:

- Management of Technology 1
- Manufacturing Strategy 1
- Operations Management 1
- Project Management 1

**Omnibus Courses.** For an explanation of courses offered but not specifically listed in this catalog, see Omnibus Courses page 56.

## Department of Marketing

[www.cob.asu.edu/mkt](http://www.cob.asu.edu/mkt)

480 965-3621

BAC 460

Michael P. Mokwa, Chair

**Professors:** Btner, Brown, Hutt, Jackson, Kumar, Lastovicka, Mokwa, L. Ostrom, Reingen, Schlacter, Ward

**Associate Professors:** Basko, Nowak, Saha, Stephens, Waker

**Assistant Professors:** Hunter, Jarvis, Mandel, A. Ostrom

**Senior Lecturer:** Spers

Study in the field of marketing involves analysis of how organizations plan, organize, deploy, and control their resources to achieve market objectives. Focus is placed on market forces, growth, and the deployment of firms in competitive markets and on the marketing strategy and tactics of the firm. Through the proper selection of courses, a student may prepare for a career in:

1. selling and sales management,
2. services and retail marketing,
3. promotion and advertising management,
4. business to business marketing;
5. international marketing
6. market research and planning,
7. general marketing management; or
8. retail management.

**L** to a year **t** inquiry **MA** mathematics **CS** computer tit to qualitative applications **HU** human and financial **SB** social behavior scene **SG** strategic general courses **SQ** natural quantitative **C** cultural diversity the United States **G** global **H** torica See General Studies page 83

## COLLEGE OF BUSINESS

### MARKETING—B.S.

The major in Marketing consists of 15 semester hours. The following courses must be included:

MKT 300 Fundamentals of Marketing Management	3
MKT 304 Consumer Behavior	3
MKT 400 Market Research	3
MKT 460 Strategic Marketing	3
<b>Total</b>	<b>12</b>

To complete the major, students, in consultation with their faculty advisors, select six additional hours from among the following list of courses.

MKT 301 Principles of Advertising	3
MKT 310 Principles of Selling	3
MKT 311 Creative Strategy in Marketing	3
MKT 411 Sales Management	3
MKT 412 Promotion Management	3
MKT 440 Retail Management	3
MKT 443 Marketing for Service Industries	3
MKT 444 Business to Business Marketing	3
MKT 450 International Marketing	3
MKT 454 Internship	3
MKT 499 Individualized Instruction	1-3

#### Major Proficiency Requirements

Students must receive grades of C or higher in upper division courses for the major. If a student receives a grade below "C" in any course in the major, this course must be repeated. If a second grade below "C" is received in either an upper division course in the major already taken or in a different upper division course in the major, the student is no longer eligible to take additional upper division courses in the major.

### GRADUATION REQUIREMENTS

In addition to fulfilling major requirements, students seeking a degree must meet all university and college requirements. See "University Graduation Requirements," page 79, and "College Degree Requirements," page 159.

### GRADUATE PROGRAMS

The department offers a distinctive M.B.A. curriculum in services marketing and management. For more information, see the *Graduate Catalog*.

#### MARKETING (MKT)

##### MKT 300 Principles of Marketing. (3)

*fall, spring, summer*

Role and processes of marketing within the contemporary economy and business organization. Prerequisite: ECN 111. Pre- or corequisite: SCM 300.

##### MKT 301 Principles of Advertising. (3)

*fall, spring, summer*

Advertising as a communication tool in marketing and business management. Survey of market segmentation, creative strategy, media and effectiveness measures. Prerequisite: MKT 300.

##### MKT 302 Fundamentals of Marketing Management. (3)

*fall, spring, summer*

Marketing planning process to add onto by organization with the assumption of identifying market opportunities and developing marketing programs. Prerequisite: MKT 300.

##### MKT 304 Consumer Behavior. (3)

*fall, spring, summer*

Application of behavioral concepts in the study of consumer behavior and the use of behavioral analysis in marketing strategy formulation. Prerequisite: MKT 300.

##### MKT 310 Principles of Selling. (3)

*once a year*

Basic concepts underlying the selling process and the practical application of the sale of nondurable goods, consumer goods, and durable goods. Prerequisite: MKT 300.

##### MKT 311 Creative Strategy in Marketing. (3)

*elective semester*

Discussion, application and evaluation of creative concepts and techniques in the creation of a portfolio addressing distinctive advertising marketing problems and opportunities. Prerequisite: MKT 301. Co-requisite: MKT 300.

##### MKT 382 Advertising and Marketing Communication. (3)

*fall and spring*

Introduction for non-business majors to the communication process within marketing and advertising. Creation and presentation of an advertisement. Not open to business majors. Prerequisite: junior or senior standing. 2.00 AS GPA.

##### MKT 394 Special Topics. (1-4)

*fall*

Topics may include the following:

- Applied International Marketing
- Global Markets
- Marketing and Selling

##### MKT 411 Sales Management. (3)

*once a year*

Application of management concepts to the advertisement of the sales operation. Prerequisite: MKT 302.

##### MKT 412 Promotion Management. (3)

*once a year*

Integrated treatment of promotional activities of the firm including advertising, personal selling, public relations, and sales promotion. Prerequisite: MKT 302.

##### MKT 424 Retail Management. (3)

*elective semesters*

Role of retailing in marketing. Problems and functions of retail management within various retail institutions. Prerequisite: MKT 300.

##### MKT 430 Marketing for Service Industries. (3)

*once a year*

Concepts and strategies for addressing distinctive marketing problems and opportunities in service industries. Current issues and trends in the service sector. Prerequisite: MKT 300. Professional program business student.

##### MKT 434 Business-to-Business Marketing. (3)

*once a year*

Strategies for marketing products and services to commercial institutions and governmental markets. Changing industry and market structures. Prerequisite: MKT 302. Co-requisite: instructor approval.

##### MKT 435 International Marketing. (3)

*once a year*

Analysis of marketing strategies developed by international firms to enter foreign markets and to adapt to changing international environments. Prerequisite: MKT 302. Co-requisite: instructor approval. Professional program business student.

##### MKT 451 Marketing Research. (3)

*fall and spring*

Integrated treatment of methods of market research and analysis of market factors affecting decisions in the organization. Prerequisite: with a grade of C or higher, MKT 302. QBA 221.

##### MKT 460 Strategic Marketing. (3)

*fall and spring*

Policy formulation and decisions making by the marketing executive to integrate marketing programs and operations with contemporary marketing issues. Prerequisite: professional program business student. Prerequisite: with a grade of C or higher, MKT 302, 304, 451.

*General Studies*

##### MKT 484 Internship. (3)

*fall, spring, summer*

Prerequisite: with a grade of B or higher, MKT 302.

**MKT 494 Special Topics. (1–4)**

*fall, spring, summer*

Chosen from topics in the marketing and international marketing areas to include seminars in international marketing in Europe and Asia. Topics may include the following:

- Applied International Marketing

**MKT 499 Individualized Instruction. (1–3)**

*fall, spring, summer*

Topics of special interest chosen by students and agreed to by the departments to do independent studies with a professor acting as a guide.

**MKT 502 Marketing Management. (3)**

*fall, spring, summer*

Managing the marketing function: market and environmental analysis; marketing planning, strategy, and control concepts. Development and management of marketing programs. Prerequisite: ECN 502.

**MKT 524 Services Marketing. (3)**

*once a year*

Strategies for marketing services emphasizing the distinctive challenges and approaches that make marketing of services different from marketing manufactured goods. Prerequisite: MKT 502 (or its equivalent).

**MKT 563 Marketing Strategy. (3)**

*selected semesters*

Planning and control concepts and methods for developing and evaluating strategic policy from a marketing perspective. Prerequisite: MKT 502.

**MKT 584 Internship. (3)**

*fall, spring, summer*

**MKT 591 Seminar. (1–12)**

*once a year*

Offered in conjunction with the M.B.A. program (see M.B.A. program section). Topics may include the following:

- Business-to-Business Marketing. (3)
- Competitive Strategy for Services. (3)
- Consumer Behavior and Market Strategy. (3)
- Customer Satisfaction/Service Quality Measurement. (3)
- International Marketing. (3)
- Marketing in the Information Age. (3)
- New Product and Service Development. (3)

**Omnibus Courses.** For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 56.

## Small Business Programs

[www.cob.asu.edu/up/smallbusiness.cfm](http://www.cob.asu.edu/up/smallbusiness.cfm)

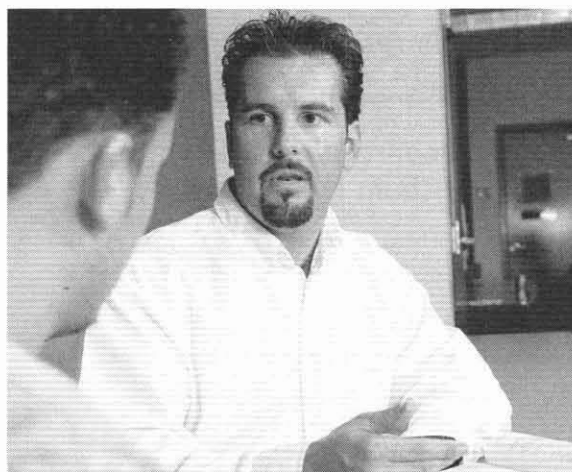
480/965-3962

BAC 111

Emma J. Watson, Academic Director

### Minor in Small Business

The minor in Small Business is available to nonbusiness majors and consists of 18 semester hours, with five required courses and one approved elective. Three *CaShing In*<sup>TM</sup> seminars are required to graduate. National and local experts present *CaShing In*<sup>TM</sup> seminars on-campus late in the afternoons three times per semester. COB 380 Small Business Leadership is a prerequisite or corequisite for the other courses. All GPA and semester hour requirements apply as listed.



Academic Advisor Joseph Behrens works with a marketing student.

Tim Trumble photo

*Note:* The minor in small business is in the process of transferring to the faculty of Business Administration in East College at ASU East.

#### Requirements

COB 380 Small Business Leadership.....	3
COB 381 Small Business Accounting and Finance.....	3
COB 382 Small Business Sales and Market Development.....	3
COB 383 Small Business Working Relationships.....	3
COB 384 Small Business Operations and Planning.....	3
Approved elective.....	3
<b>Total.....</b>	<b>18</b>

### B.I.S. Concentration in Small Business (B.I.S. Majors Only)

The requirements for the small business concentration are identical to those for the minor in Small Business listed above. For B.I.S. degree requirements, see "Bachelor of Interdisciplinary Studies," page 114.

*Note:* The B.I.S. concentration in small business is in the process of transferring to the faculty of Business Administration in East College at ASU East.

### Certificate in Small Business and Entrepreneurship

A certificate in Small Business and Entrepreneurship is available to only business majors at ASU. The certificate requires 15 semester hours of classes of which the following six semester hours must be included:

MGT 440 Small Business and Entrepreneurship.....	3
MGT 445 Business Plan Development.....	3

The remaining nine semester hours consist of three additional upper-division courses relevant to small business. A copy of the approved electives for business majors pursuing the Certificate in Small Business and Entrepreneurship is available in the Undergraduate Programs Office. To receive

L literacy and critical inquiry / MA mathematics / CS computer/statistics/ quantitative applications / HU humanities and fine arts / SB social and behavioral sciences / SG natural science—general core courses / SQ natural science—quantitative / C cultural diversity in the United States / G global / H historical / See "General Studies," page 83.

## COLLEGE OF BUSINESS

the certificate, students must complete the specified business courses with a grade of "C" or higher.

### Department of Supply Chain Management

www.cob.asu.edu/scm  
480 965-6044  
BA 446

**Joseph R. Carter, Chair**

**Professors:** J. Carter, P. Carter, E. Ram, Guntermann, Hendrick, Jennings, Kirkwood, Pearson, Smetzer

**Associate Professors:** Aranda, Brooks, Butler, Cho, Davis, Dundas, Keefer, Leonard, Lock, Lynch, Matz, Sferd, Verd n

**Assistant Professors:** C. Nton, Krause, Petersen, Rab, Novich

**Research Professor:** Monczka

**Adjunct Professor:** Cavonato

**Senior Lecturer:** Langdon

The faculty in the Department of Supply Chain Management offer courses in four separate areas: legal and ethical studies, management communication, real estate, and supply chain management.

#### Legal and Ethical Studies

The legal and ethical studies faculty offer the undergraduate and the Master of Business Administration core requirements in legal and ethical studies. In addition, the faculty offer specialized courses in law and ethics relating to health care, insurance, real estate, and professional sports.

#### Management Communication

The management communication faculty serve the College of Business by teaching the B.S. core requirement BUS 301 Fundamentals of Management Communication.

#### SUPPLY CHAIN MANAGEMENT—B.S.

A "supply chain" consists of all of the entities necessary to transform ideas into delivered products and services. Supply chain management directs and transforms a firm's resources in order to design, purchase, produce, and deliver high quality goods and services. As goods and services flow from supplier to producer to customer to final user, supply chain management is particularly concerned with the interfaces between organizations. One way to view supply chain management is as the management of linkages between organizations.

The competitive and global nature of today's business environment dictates that this direction and transformation take place in a way that is as efficient and effective as possible.

Continuing emphases on time, cost, and quality improvements have sharpened the need to coordinate and cooperate with trading partners around the world to achieve results that allow customers to be successful. Thus, supply chain management focuses on the integration of activities across several companies to manage the flow of products, services, people, equipment, facilities, and other resources. Supply chain management is also concerned with recycling, reuse, and final disposal of products.

The major in Supply Chain Management consists of the following courses:

SCM 345 Logistics Management.....	3
SCM 355 Supply Management .....	3
SCM 432 Planning and Control Systems for Supply Chain Management .....	3
SCM 440 Quality Management and Measurement .....	3
SCM 455 Research and Negotiation .....	3
SCM 479 Supply Chain Strategy .....	3
<b>Total .....</b>	<b>18</b>

#### REAL ESTATE B.S.

The Real Estate faculty offer a unique, integrated, one year program designed for the student's last year of college. This innovative and award-winning program emphasizes student involvement with real estate executives or projects in the Phoenix metropolitan area. Students work in teams to develop their analytical, communication, technology, and team skills.

The program is organized around five aspects of real estate: brokerage management, development, financing, investments, and market analysis. With broad interdisciplinary perspective, emphasis on teamwork, and involvement in projects, students may pursue careers in land development, investment analysis, appraisal, property management, brokerage, and mortgage finance.

Successful completion of the program satisfies the requirements of the major based on the following courses:

LES 401 Real Estate Law .....	3
REA 301 Real Estate Analysis .....	3
REA 331 Real Estate Finance .....	3
REA 401 Real Estate Appraisal .....	3
REA 441 Real Estate Land Development .....	3
RFA 456 Real Estate Investments .....	3
<b>Total .....</b>	<b>18</b>

In addition to the courses listed for the major, students in the program also satisfy the requirement for BUS 301 Fundamentals of Management Communication (listed in the business core) and BUS 451 Business Research Methods (listed as a major support course). These courses are integrated into the major, not taken separately. Because of the emphasis on teamwork, interaction with business professionals, and completion of all requirements within a year, students may enter the program in only the fall semester. Classes meet from 9 to 11:45 A.M. Monday through Thursday in a classroom assigned to the Real Estate program.

#### MAJOR PROFICIENCY REQUIREMENTS

Students must receive grades of "C" or higher in upper division courses for the major. If a student receives a grade

## DEPARTMENT OF SUPPLY CHAIN MANAGEMENT

below "C" in any course in the major, this course must be repeated. If a second grade below "C" is received in either an upper division course in the major already taken or in a different upper division course in the major, the student is no longer eligible to take additional upper division courses in that major.

### GRADUATION REQUIREMENTS

In addition to fulfilling major requirements, students seeking a degree must meet all university and college requirements. See "University Graduation Requirements," page 79, and "College Degree Requirements" page 119.

### BUSINESS (BUS)

#### **BUS 301 Fundamentals of Management Communication. (3)**

*fall and spring summer*

Written and oral communication in a management context. Prerequisite: CS 200. Prerequisite with a grade of C or higher: ENG 102. *General Studies L*

#### **BUS 394 Special Topics. (1–4)**

*selected semesters*

See current *Schedule of Classes* for offerings of courses at ASU East.

#### **BUS 451 Business Research Methods. (3)**

*selected semesters*

Methods of collecting information pertinent to business problems involving designing, collecting, analyzing, interpretation, and presentation of primary and secondary data. *General Studies L*

#### **BUS 494 Special Topics. (1–4)**

*selected semesters*

#### **BUS 502 Managerial Communication. (1–3)**

*fall and spring*

Analyze various business problems, situations, and development of appropriate communication strategies. Prerequisite: MGT 502.

#### **BUS 591 Seminar. (3)**

*selected semesters*

Selected managerial communication topics.

#### **BUS 594 Study Conference or Workshop. (3)**

*selected semesters*

#### **BUS 700 Research Methods. (3)**

*selected semesters*

**Omnibus Courses.** For an explanation of courses offered but not specified in this catalog, see Omnibus Courses, page 56.

### LEGAL AND ETHICAL STUDIES (LES)

#### **LES 305 Legal, Ethical, and Regulatory Issues in Business. (3)**

*fall and spring summer*

Legal theories, ethical issues, and regulatory compliance affecting business processes and decisions. Web-based delivery.

#### **LES 308 Business and Legal Issues in Professional Sports. (3)**

*selected semesters*

Economic structure of professional sports and application of contract, antitrust, arbitration, and labor laws to the industry. Prerequisites: 2.0 GPA, junior or standing.

#### **LES 380 Consumer Perspective of Business Law. (3)**

*fall and spring*

Role of law in affecting society. See case studies to present principles that govern business and consumer. Lecture, television. Prerequisites: 2.00 GPA, junior or standing.

#### **LES 411 Real Estate Law. (3)**

*once a year*

Legal and ethical aspects of land ownership, interests, transfer of financial development, and regulation of the real estate industry.

#### **LES 532 Negotiation Agreements. (3)**

*fall and spring*

Develop negotiation competencies, build partnerships and create lasting agreements with internal/external customers, suppliers, work

teams, and external influence. Lecture and substantial student interaction through team exercises.

#### **LES 579 Legal and Ethical Issues for Business. (3)**

*fall and spring*

Students evaluate ethical components of business decisions, self-regulation, and social responsibility as strategies. Prerequisites: ACC 503, FN 52, MGT 502, MKT 52.

**Omnibus Courses.** For an explanation of courses offered but not specified in this catalog, see Omnibus Courses, page 56.

### QUANTITATIVE BUSINESS ANALYSIS (QBA)

For more QBA courses, see *Department of Economics*.

#### **QBA 505 Management Science. (3)**

*selected semesters*

Quantitative approaches to decision making, including linear programming, and simulation, with emphasis on business applications. Prerequisites: MAT 21, QBA 52.

#### **QBA 508 Product and Service Innovation. (3)**

*fall and spring*

Develop strategies for innovation in products and services. Prerequisites: basic algebra, basic probability, concepts elementary knowledge of Windows.

#### **QBA 550 Intermediate Decision Analysis. (3)**

*selected semesters*

Quantitative decision analysis methods for business decisions making under uncertainty, including decision diagrams, subjective probabilities, and preference assessment. Prerequisites: MAT 210, QBA 502.

#### **QBA 591 Seminar. (1–12)**

*fall and spring*

Current topics in quantitative business analysis, primarily designed for technology, engineering, and executive MBA students. Elective courses for these programs may include the following possible topics:

- Decision Models
- Decision Models for Consulting
- Management Problem Solving
- Strategic Decision Analysis

#### **QBA 593 Applied Project. (1–12)**

*selected semesters*

#### **QBA 599 Thesis. (1–12)**

*selected semesters*

#### **QBA 791 Doctoral Seminars in Quantitative Business Analysis. (1–12)**

*selected semesters*

The Department of Supply Chain Management has adopted a modular approach to Ph.D. education. Topics may include the following:

- Chao Theory
- Risk Analysis
- Strategic Decision Making
- Systems Dynamics

**Omnibus Courses.** For an explanation of courses offered but not specified in this catalog, see Omnibus Courses, page 56.

### REAL ESTATE (REA)

#### **REA 300 Real Estate Analysis. (3)**

*once a year*

Apples economic theory and analytical technique to real estate market, include law, finance, appraisal, market analysis, investments, development. Prerequisite: professional program business student.

#### **REA 331 Real Estate Finance. (3)**

*once a year*

Evaluate market and institutional factors related to financing proposed and existing properties. Emphasize current financing techniques and quantitative methods. Prerequisites: FN 300, professional program business student.

Literacy and critical inquiry. **MA** mathematics. **CS** computer statistics. Quantitative application. **HU** human and financial. **SB** social and behavioral. **SG** natural science general. **RE** real estate. **SO** natural science. **Q** quantitative. **C** cultural diversity. **NT** United States. **G** global. **H** history. **S** general studies. page 8.

## COLLEGE OF BUSINESS

### REA 380 Real Estate Fundamentals (3)

*fall and spring*

Real estate for the student/college with an emphasis on the application of each area of real estate specialization. Not open to Real Estate majors. Prerequisites: 2.0 ASU GPA or standing.

### REA 401 Real Estate Appraisal. (3)

*once a year*

Factors affecting the value of real estate. Theory and practice of appraisal and preparation of the appraisal report. Appraisal techniques. Prerequisites: REA 300 professional program business student.

### REA 441 Real Estate Land Development (3)

*once a year*

Neighborhood and city growth. Municipal planning and zoning. Development of residential, commercial, industrial, and special purpose properties. Prerequisites: REA 300 professional program business student.

### REA 456 Real Estate Investments (3)

*once a year*

Analyses investment decisions for various property types. Cash flow and rate of return analysis. Prerequisites: FIN 300 professional program business student.

**Omnibus Courses** For an explanation of courses offered but not specifically stated in this catalog, see Omnibus Course, page 56.

## SUPPLY CHAIN MANAGEMENT (SCM)

### SCM 300 Global Supply Operations. (3)

*fall, spring, summer*

Resources and information to create and deliver products globally. Interfirm systems and industry supply chains. Customer, producer, and employee perspectives. Lecture/discussion. Fee. Prerequisite: ACC 240, C/S 2.0, QBA 221.

### SCM 301 Supply Chain Management. (3)

*selected semesters*

Examines the purchasing, material, and logistics management areas. Presents techniques for a quering, storing, processing, and moving material inventory. Prerequisite: professional program business student.

### SCM 345 Logistics Management (3)

*fall and spring*

Logistics and supply chain activities. Emphasizing integration of transportation, inventory, warehousing, facility location, customer service, packaging, and material handling. Prerequisite: professional program business student majoring in Supply Chain Management. Prerequisite: corequisite: SCM 30.

### SCM 355 Supply Management. (3)

*fall and spring*

Management of the supply function. Including organizational procedures, supplier selection, quality, inventory decisions, and price determination. Prerequisite: professional program business student majoring in Supply Chain Management. Prerequisite: corequisite: SCM 30.

### SCM 405 Urban Transportation. (3)

*selected semester*

Economic, social, political, and business aspects of passenger transportation. Public policy and government's role in urban transportation development. Prerequisite: upper division standing or instructor approval.

### SCM 432 Planning and Control Systems for Supply Chain Management (3)

*fall and spring*

Planning and control systems for product and service flows in supply chain production planning, master scheduling, MRP, ERP, inventory management. Lab Fee. Prerequisite: SCM 30 professional program business student. Prerequisite: corequisites: SCM 345, 355.

### SCM 440 Quality Management and Measurement. (3)

*fall and spring*

Quality management and measurement relationship with suppliers and customers. Quality awards, certification programs, tools for process improvement and cost analysis. Prerequisite: SCM 30 professional program business student majoring in Supply Chain Management.

### SCM 455 Research and Negotiation. (3)

*fall and spring*

Current processes, physical methods, techniques for conducting strategic and tactical supply chain research and negotiation. Includes supply price and cost analysis. Prerequisite: professional program business student majoring in Supply Chain Management. Prerequisite with a grade of C or higher: SCM 355.

*General Studies*

### SCM 460 Carrier Management. (3)

*selected semester*

Analyses carrier economics, regulation, management, and rate making practices; evaluates public policy issues related to carrier transportation. Prerequisite: both SCM 345 and preplanned standing or on-line instructor approval.

### SCM 463 Global Supply Chain Management. (3)

*once a year*

Supply chain activities in international business with special emphasis on management of transportation, global sourcing, cost issues, and facility location in a global environment.

### SCM 479 Supply Chain Strategy. (3)

*fall and spring*

Integrate supply chain strategies synthesizing supply management, product logistics, and enterprise system. Provide a comprehensive perspective of supply chain management. Prerequisite: professional program business student majoring in Supply Chain Management. Prerequisite with a grade of C or higher: SCM 345, 355. Prerequisite: SCM 432, 440, 455. One of these courses must be taken as a prerequisite with a grade of C or higher.

### SCM 502 Operations and Supply Management. (3)

*fall and spring*

Continuous improvement management issues. Using environmental protection and supply chain management. New product development, quality control, TQM. Prerequisite: M.B.A. degree program student.

### SCM 532 Supply Chain Cost and Design Issues. (3)

*once a year*

Strategic design and development of supply chain. Focus on total management tools applied to supply chain design and upper management.

### SCM 541 Logistics in the Supply Chain. (3)

*once a year*

Critical issues for customer perception of supply chain performance. Including inventory planning, transportation, warehousing, information technology, and integrated logistics service.

### SCM 545 Supply Chain Continuous Improvement Strategies. (3)

*spring*

Leading edge strategies such as reengineering high performance teams and expert systems for continuous improvement of the supply chain environment.

### SCM 591 Seminar. (1-12)

*fall and spring*

Topics may include the following:

- Buyer-Supplier Relationships 3
- Decision-Making for Supply Chain Management 3
- E-commerce 3
- Global Supply Chain Management 3
- Operations Planning and Control 3
- Supply Chain Management Fundamentals 3

### SCM 791 Doctoral Seminar. (1-12)

*once a year*

Topics may include the following:

- Complex Advanced Concepts Theory for Supply Chain Management 3
- Logistics Management 3
- Purchasing and Material Management 3
- Supply Chain Management and Organizational Theories 3
- Uncertainty in Supply Chain Management 3

**Omnibus Courses** For an explanation of courses offered but not specifically stated in this catalog, see Omnibus Courses, page 56.

# College of Education

coe.asu.edu coe

Eugene E. Garcia, Ph.D., Dean

<b>Division of Curriculum and Instruction . . . . .</b>	<b>194</b>
<b>Division of Educational Leadership and Policy Studies . . . . .</b>	<b>202</b>
<b>Division of Psychology in Education . . . . .</b>	<b>203</b>

## PURPOSE

For students, choosing a professional college is an important step because it establishes the foundation on which a career will be built. The College of Education provides a stimulating, challenging forum wherein scholars and practitioners interact in the discovery and mastery of the science and art of educational endeavors. This balanced approach, in which research and practice are viewed as essential and complementary, enables the college to produce superior educators.

The purposes of the faculty of the College of Education are as follows:

1. to engage in the scholarly, scientific, and professional study of education;
2. to prepare competent professionals who will serve in a variety of critical educational roles;
3. to develop productive scholars who will make significant contributions to the educational literature and to the quality of educational practice; and
4. to serve the education profession at the local, national, and international levels.

In accord with these purposes, the College of Education is committed to producing quality scholarship and research and to excellence in teaching.

Information about the college can be found on the Web at [coe.asu.edu/coe](http://coe.asu.edu/coe).

## ORGANIZATION

The College of Education is organized into three divisions. These divisions and the academic program areas are listed below.

**Division of Curriculum and Instruction.** The Initial Teacher Certification (ITC) program is the largest program in the college, designed to prepare students for teaching positions in early childhood education, elementary education, secondary education, and special education. Support experiences also come from the Division of Psychology in Education and the Division of Educational Leadership and Policy Studies. The program is a blend of on-campus and school-based methods courses. All programs involve professional school-based internships with experienced teachers.

For specific program descriptions, see "Bachelor of Arts in Education," page 157.

The faculty in Curriculum and Instruction are grouped according to their interests into one or more of 10 research clusters. These clusters include curriculum studies; early childhood; equity, diversity, and citizenship; gender, language and literacy; mathematics education; middle level interest; science education; special education and teacher preparation; and professional development. For more information on research clusters and graduate programs, refer to the *Graduate Catalog*.

### Division of Educational Leadership and Policy Studies

Educational Administration and Supervision  
Educational Policy Studies  
Higher and Postsecondary Education  
Social and Philosophical Foundations

### Division of Psychology in Education

Counseling Psychology  
Counselor Education  
Educational Psychology  
Learning  
Lifespan Developmental Psychology  
Measurement, Statistics, and Methodological Studies  
School Psychology  
Educational Technology

Services to students and the community are provided through various centers and offices.

### Southwest Center for Education Equity and Language Diversity

This center conducts, supports, and promotes research, scholarship, and innovative practice in the effective education of minority students in public schools. The center's primary focus is on equity aspects of education in Arizona, especially as they relate to non-native English speaking children and youth. Research, scholarly discourse, and program development activities, aimed at improving language education for minority students in public schools, serve the purpose of informing public policy in Arizona and the larger U.S. Southwest region. For more information, call 480-965-7134.

**Education Policy Studies Laboratory.** Located within the College of Education, the Education Policy Studies Laboratory (EPSL) conducts and coordinates ongoing research in areas such as student performance standards, assessment, curriculum, and commercialism in schools.

Literacy and critical inquiry MA mathematics CS computer statistics  
qualitative approaches HU humanities and fine arts SB social and  
behavioral science SG natural science-general research SQ statistical  
qualitative curriculum development interdisciplinary global  
history See General Education



## COLLEGE OF EDUCATION

### College of Education Baccalaureate Degrees and Majors

Major	Degree	Concentration	Administered By
Early Childhood Education	B.A.E.		Division of Curriculum and Instruction
Elementary Education	B.A.E.	Multilingual multicultural education	Division of Curriculum and Instruction
Secondary Education	B.A.E.	Academic specializations: biological sciences, business, chemistry, Chicana and Chicano studies, economics, English, family and human development, French, geography, German, history, mathematics, physical education, physics, political science, social studies, Spanish	Division of Curriculum and Instruction
Selected Studies in Education*	B.A.E.		College of Education
Special Education	B.A.E.		Division of Curriculum and Instruction

\*Applicants must be accepted at this time.

EPSL disseminates its analyses and reports to policy makers and educators and also concentrates on providing the public with readable accounts of research.

EPSL houses two research units: the Commercialism in Education Research Unit (CERU), which is the only national academic research center dedicated to schoolhouse commercialism; and the Education Policy Research Unit (EPRU), which conducts original research and facilitates implementation of educational innovations.

For more information, contact Alex Moritar, director and professor of Educational Leadership and Policy Studies, EDB L101, call 480-965-1856, or access the laboratory's Web site at [asu.edu/educ/eps](http://asu.edu/educ/eps).

**Center for Indian Education.** The Center for Indian Education serves as a service agency to Native American communities, school districts, and students attending ASU. The center also conducts research on Indian education in Arizona and other states with American Indian populations. For more information, call 480-965-6292.

**Office of Student Services.** The Office of Student Services assists undergraduate and postbaccalaureate students who are interested in teacher preparation programs. Areas of service include new student recruitment, academic advising, Initial Teacher Certification admission, academic support scholarships, retention, teacher placement, and certification assistance. Advice regarding program of study, validation, declaration of graduation, petitions to standards, student communication, and high school and community college articulation relations is also available. For more information, call 480-965-5555.

**Office of Professional Field Experiences.** Part of the Office of Student Services, the Office of Professional Field Experiences places all teacher preparation students in public schools and similar institutions for internship and student teaching. This office monitors students' progress in their field experiences, provides assistance for pre-service teachers who need intervention to improve performance, sponsors courses for mentor teachers, and conducts research on

student teacher performance in the field. For more information, call 480-965-6255.

**Counselor Training Center.** The Counselor Training Center provides counseling for ASU students, staff, and the community at large regarding personal, relationship, and career development issues. Counseling is conducted by graduate students in counseling and counseling psychology under the supervision of licensed psychologists. For more information, call 480-965-5067.

**Other Units.** Other units within the college offer specialized research and educational services include the College of Education Preschool and Technology-Based Learning and Research.

### TEACHER EDUCATION

Programs that prepare students for teacher certification by the state are available to both the undergraduate pursuing a first degree and the individual with a college degree in a noneducation field.

Undergraduate students interested in teacher certification in art, music, or dance enrollment through program is offered by the Herberger College of Fine Arts. These students must also meet the same eligibility requirements for admission to the Initial Teacher Certification (ITC) for certification, and a formal application must be submitted to the ITC program. For more information, see "Initial Teacher Certification Professional Program Admission," page 15.

Undergraduate programs leading to the Bachelor of Arts in Education degree are described in the text that follows. For descriptions of graduate degree programs, see the Graduate Catalog. For more information, see the "College of Education Graduate Degrees and Majors" table, page 189.

### ADMISSION

#### Preprofessional Admission

Students admitted to ASU during their freshman and sophomore years may also be admitted to the College of Education with preprofessional status. Preprofessional stu-

dents should seek advising within the College of Education through its Office of Student Services EDB L1 13

Admission to ASU with preprofessional status in the College of Education does not guarantee admission to the ITC program. Admission to the ITC is a separate process.

### Initial Teacher Certification Professional Program Admission

Students are eligible for consideration for admission to the ITC program, if they meet the following criteria:

1. admission to ASU Main as a degree seeking student;
2. a minimum 2.50 cumulative GPA ASU GPA and transfer GPA combined ;
3. completion of a minimum of 36 credit hours by starting date of the program;
4. completion of ENG 101 and 102, general studies MA and L or SQ SG requirements with a grade of "C" or higher (courses in progress do not satisfy this requirement) ;
5. a special application with additional supporting materials an emphasis on prior experience working with the age group of the certification area sought, paid or volunteer, is vital .

Admission is competitive and not guaranteed to all who satisfy the minimum admission criteria

Some academic units have additional requirements. Students seeking admission to K-8 or secondary education programs (7-12) should consult the Office of Student Services (480-965-5555) to determine if there are additional admission requirements for these teaching fields

Application deadlines for most ITC programs are February 1 for fall admission; September 1 for spring admission. The Apprentice Teacher Program (ATP) and Integrated Certification in Teacher Education (INCITE) offer additional admission deadlines. For more information, see "Apprentice Teacher Program (ATP)," page 188 and "Integrated Certification in Teacher Education (INCITE)," page 185. Access the Office of Student Services Web site at [coe.asu.edu/osa](http://coe.asu.edu/osa) to download an application.

### Transfer Students

To be considered for admission to the ITC program, transfer students must first be formally admitted to ASU (see "Transfer Applicants," page 60). Transfer students must attend a Transfer Advising Session (TAS). These sessions are provided in groups according to specialization area and conducted by academic advisors. During the TAS, information is provided regarding the university General Studies requirement, course selection and registration in the College of Education, and admission requirements for the Initial Teacher Certification Program. To sign up for a Transfer Advising Session, call the Office of Student Services, 480-965-5555. ASU Undergraduate Admissions should receive the application for admission to ASU, transcripts, and other required information at least five months before the ITC application deadline date for the desired ITC admission semester.

Students should access the ASU Education Transfer Guides for optimal course selection on the Web at [www.asu.edu/provost/articulation](http://www.asu.edu/provost/articulation).

### ADVISING

All students pursuing teaching certificates are strongly encouraged to seek early advising from the Office of Student Services in the College of Education, 480-965-5555. Careful planning and early advising in developing an approved program of study are essential if teacher candidates are to complete certification and graduation requirements within the typical 120 semester hour undergraduate degree program.

**Mandatory Advising.** Transfer students are required to meet with an academic advisor before registering for their first semester classes. Freshmen must meet with an advisor before registering for each of their first two semesters.

### DEGREES

#### Bachelor of Arts in Education

The faculty in the College of Education offer the Bachelor of Arts in Education B.A.E. degree. See the "College of Education Baccalaureate Degrees and Majors" tab on page 186, for more information. Candidates for the Bachelor of Arts in Education degree must complete an Initial Teacher Certification (ITC) program offered by the College of Education. Graduates of this program are able to demonstrate proficiency in specified knowledge areas or skills, including the following.

1. principles and application of effective instruction;
2. classroom organization and management;
3. content or subject matter,
4. specific curriculum and teaching strategies,
5. interrelationship of culture and schooling in a multicultural society;
6. human development;
7. communication skills,
8. theories of learning and motivation;
9. assessment and evaluation, and
10. computer literacy.

Each student in the ITC program selects one of 10 programs that provide specialized education and preparation. The program areas are as follows:

1. Apprentice Teacher Program (ATP)
2. Multilingual Multicultural Education Program
3. Dine Teacher Education Program
4. Early Childhood Interprofessional Program (birth-third grade)
5. Elementary Education Partnership Program
6. Secondary Education (SED) (7-12)
7. Special Education (SPE)
8. Teaching for a Diverse Future (TDF)
9. Integrated Certification in Teacher Education (INCITE) (postbaccalaureate program only)

Literacy and technology MA mathematics CS computer and quantitative applications HU humanities and fine arts SB social and behavioral sciences SG natural sciences general core course SQ natural science quantitative cultural diversity in the United States Global Health & See General Studies page 83

## COLLEGE OF EDUCATION

10 Teacher Education for Arizona Mathematics and Science (TEAMS) (postbaccalaureate program only).

**Apprentice Teacher Program (ATP).** ATP is a fast track certification option that is completed in one calendar year, January through December, with all course work based in the participating schools. The program conforms to the public school calendar, thus extending the academic year for ASU students by eight weeks. Students are engaged in K-5 classroom experiences and ASU classes from 8 a.m. to 4 p.m., Monday through Friday for 46 weeks. The theoretical premises that undergird the ATP program might be called "practice informed by theory" as students are immersed in both "school" and "teacher" cultures throughout their program. Admission for spring semester only. For more information, call 480 965 5555.

**Multilingual Multicultural (ML/MC) Program.** The ML/MC program is a four semester sequence offered in "blocks" with focused field requirements in a professional development school and other bilingual or ESL settings. The bilingual education option prepares teachers to teach elementary students whose primary language is Spanish or a Native American language spoken in Arizona. The ESL option prepares teachers to teach elementary school students from any language background who are still acquiring English as an additional language. Methods courses are divided into BLE or ESL sections, although some course work is planned together to promote collaboration. The program meets Arizona requirements for an elementary education teaching certificate with an endorsement in bilingual education or English as a second language. For more information, call 480 965 5555.

**Dine Teacher Education Program.** The Dine Teacher Education Program is a collaborative effort between Dine College and the ASU College of Education. All course work is done at the Dine College campus (Tsaile, Arizona) and field placements are in Navajo bilingual classrooms in Navajo schools. The program is designed to prepare Navajo Teachers to teach in Navajo communities of the Navajo Nation. Graduates qualify for an initial teaching certificate for elementary education and an Arizona endorsement in bilingual education. For more information, call 925 724 6819.

**Early Childhood Interprofessional Program (ECD) (Birth-Third Grade).** The early childhood program has a core focus on interprofessional education that includes cross training. Students work with members of other disciplines and collaborate between and across community programs and university departmental structures to promote a broad-based professional preparation. Students participate in schools and community agencies that also operate cross professionally. The early childhood faculty and its community partners work from a child-sensitive, or constructivist approach that emphasizes constructivist theory, multiple points of view, emergent learning, and a developmental, integrative approach to classroom practice. For more information, call 480 965 5555.

### Elementary Education Partnership Program (EED).

Students in the Elementary Education Partnership Program work in three different elementary schools, one each semester, prior to the first student teaching. Each semester, or block, includes methods courses that are taught on an elementary school campus through an internship of six hours each week. Students become an integral part of the life of the elementary school, and assignments link the classroom observations and experiences to the content of the methods courses. Faculty from each of the school sites coordinate assignments and activities to ensure a wide range of learning experiences; some assignments are continued across semesters. Optional course content is in place to qualify all students in this program for a provisional ESL certificate. For more information, call 480 965 5555.

**Secondary Education (SED) (7-12).** In order to integrate teacher education preparation with the secondary education requirement for an academic specialization, the College of Education maintains connections with academic departments across the university. Each program semester requires an internship in the schools, and some courses are taught in the field. Graduates are eligible for secondary certification in grades 7-12 in one of 25 subject specializations. Fine arts and physical education majors receive a K-12 endorsement. For more information, call 480 965 5555.

**Special Education (SPE).** The SPE leads to certification in K-12 special education for children with learning disabilities, mild mental retardation, or emotional/behavioral disorders. This program provides preparation in each disability area; however, the student only qualifies for a certificate in one area, which is determined by the area of student teaching placement. A school internship is required for each semester. For more information, call 480 965 4602.

**Teaching for a Diverse Future (TDF).** TDF enrolls one group of students every other year in the fall semester. The program is based on premises derived from work in anthropology, language acquisition, and cognitivist and social interactionist views of the development of mathematical and scientific concepts and curriculum theory. Students work in two elementary schools that honor this perspective throughout the program. Methods courses are distributed across three semesters, and each semester's field experience includes a full time, two-week immersion. Certification options include a certificate in elementary education, an elementary certificate with an endorsement in bilingual education, or an elementary certificate with an endorsement in ESL. The program is available only in specific fall semesters. For more information, call 480 965 0999.

### Integrated Certification in Teacher Education

**(INCITE).** Integrated Certification in Teacher Education is a flexible program that prepares working adults for teaching. This school-based program offers both secondary education and elementary education options, including a middle school endorsement. All course work is offered during the evening and on weekend. INCITE is designed for postbaccalaureate students only. For more information, call 480 965 5555.

## College of Education Graduate Degrees and Majors

Major	Degree	Concentration	Administered By
Counseling	M.C.		Division of Psychology in Education
Counseling Psychology	Ph.D.	—	Division of Psychology in Education
Counselor Education	M.Ed.		Division of Psychology in Education
Curriculum and Instruction	M.A.	Bilingual education, early childhood education, elementary education, English as a second language, Indian education, language and literacy, mathematics education, science education, secondary education, social studies education	Division of Curriculum and Instruction
	M.Ed.	Bilingual education, early childhood education, elementary education, English as a second language, Indian education, language and literacy, mathematics education, professional studies, science education, secondary education, social studies education	Division of Curriculum and Instruction
	Ed.D.	Bilingual education, curriculum studies, early childhood education, elementary education, <sup>3</sup> English as a second language, Indian education, language and literacy, mathematics education, science education, secondary education, <sup>3</sup> social studies education	Division of Curriculum and Instruction
	Ph.D. <sup>1</sup>	Art education, <sup>2</sup> curriculum studies, early childhood education, elementary education, English education, exercise and wellness education, <sup>4</sup> language and literacy, mathematics education, music education, physical education, science education, special education	Interdisciplinary Committee on Curriculum and Instruction
Educational Administration and Supervision	M.Ed., Ed.D.		Division of Educational Leadership and Policy Studies
Educational Leadership and Policy Studies	Ph.D.		Division of Educational Leadership and Policy Studies
Educational Psychology	M.A., M.Ed.		Division of Psychology in Education
	Ph.D.	Learning; lifespan developmental psychology; measurement, statistics and methodological studies; school psychology	Division of Psychology in Education
Educational Technology	M.Ed., Ph.D.	—	Division of Psychology in Education
Higher and Postsecondary Education	M.Ed., Ed.D.	Higher education	Division of Educational Leadership and Policy Studies
Social and Philosophical Foundations of Education	M.A.		Division of Educational Leadership and Policy Studies
Special Education	M.A.		Division of Curriculum and Instruction
	M.Ed.	Gifted, mildly disabled, multicultural exceptional, severely multiply disabled	Division of Curriculum and Instruction

Program is administered in collaboration with the Graduate College

<sup>2</sup> This concentration is administered in collaboration with the Herberger College of Fine Arts

<sup>3</sup> Applications are not being accepted at this time.

<sup>4</sup> Doctoral courses for this interdisciplinary program administered by ASU Main are offered by ASU East

## COLLEGE OF EDUCATION

**Teacher Education for Arizona Mathematics and Science (TEAMS).** TEAMS is a year long, middle grades program leading to secondary certification, middle school endorsement, and a master's degree specializing in mathematics, science, and technology. It is based around technology, field based experiences, internships, and course work.

For more information, call 480 965 3333

### Initial Teacher Certification Endorsements

Elementary Education

bilingual education

English as a second language

Secondary Education

certification in specific academic specialization

K-12 endorsements in fine arts and physical education

Special Education

emotionally disabled

learning disabilities

mental retardation

ITC students in areas other than Special Education complete a common core of courses as well as courses specific to the area or option selected. Early Childhood Education and Elementary Education prepare students for certification by the state in grades K-8. Students who select these majors develop the knowledge and skills needed to teach children from a variety of language, cultural, and developmental backgrounds. The Early Childhood Education concentrator prepares students to work in infant programs, preschools, and grades K-3. The Elementary Education Multilingual Multicultural (ML/MC) program prepares students to work in bilingual/ESL settings in grades K-8. The Special Education concentrator prepares students to teach mildly handicapped students in diverse settings and for certification in grades K-12 in MR, ED, or LD.

Secondary Education offers programs that prepare students for certification by the state in specific academic subjects in grades 7-12. Students with teaching majors in the Herberger College of Fine Arts earn the appropriate bachelor's degree from that college.

Courses for the academic specialization are determined by the faculty in the academic discipline. Therefore, students with majors in Secondary Education have two academic advisors: one in the college and department of the academic specialization and one in the Office of Student Services in the College of Education. For more information, refer to "Academic Specializations," page 19.

### UNIVERSITY GRADUATION REQUIREMENTS

In addition to fulfilling college and minor requirements, students must meet all university graduation requirements. For more information, see "University Graduation Requirements," page 79.

#### General Studies Requirement

All students enrolled in a baccalaureate degree program must satisfy a university requirement of a minimum of 35 hours of approved course work as described in "General Studies," page 83. Note that all three General Studies awareness areas are required. General Studies courses are listed in the "General Studies Courses" table, page 86, in the course

descriptions, in the *Scholarship Classes* and in the *Summer Sessions Bulletin*.

Preprofessional students should complete as many of the General Studies courses as possible before admission to the ITC program. Students are encouraged to consult with an academic advisor to ensure they comply with all necessary requirements.

### COLLEGE DEGREE REQUIREMENTS

A minimum of 120 semester hours are required for the B.A.E. degree in these categories:

1. academic specialization: secondary education
2. college core requirements: Early Childhood Education, Elementary Education, and Special Education majors only; and
3. ITC

The College of Education expects its degree candidates to meet individual course assessment standards, field experience observation criteria, courses required for teacher certification, and other proficiency standards and performance criteria required to demonstrate knowledge and skill in the areas listed under "Bachelor of Arts in Education," page 187.

#### Program Requirements

Progress toward the B.A.E. degree involves meeting university, college, and division requirements. The degree program also includes courses and academic content required for teacher certification by the State of Arizona. Students seeking certification in one of the fine arts must complete degree requirements in the Herberger College of Fine Arts and specified courses through the ITC program.

#### Declaration of Graduation

A declaration of graduation must be filed during the first semester of enrollment in the ITC program. Preprofessional student completing 57 hours, the university limit for reentering without a program of study, who have not been admitted to the program are provided a registration waiver by the College of Education. See "University Graduation Requirement," page 79.

### MAJOR REQUIREMENTS

#### Academic Specialization

Courses in the academic specialization give students a greater depth of knowledge in one academic area. A Secondary Education major completes 36 to 60 hours, depending upon the area, in the subject in which the student wishes to be certified; fine arts may require more. Refer to the pages shown in the "Academic Specializations" table, page 191.

#### College of Education Core Requirements

The programs that prepare students for teacher certification by the state in elementary education, early childhood education, and special education require students to complete semester hours selected from specific core courses pertinent to the teaching area. Teacher candidates should confer with an academic advisor in the Office of Student Services regarding course selection.

### Initial Teacher Certification program

The Initial Teacher Certification (ITC) program is a four semester sequential program consisting of 36 to 58 semester hours. Ranging from nine to 16 hours per semester, the courses for one semester must be completed before enrolling in the next semester. In other words, courses for one semester usually may not be taken at the same time as those scheduled for another semester. In addition to ITC courses students continue completing the General Studies requirement and core requirements or academic specialization requirements through the third semester of the program.

### Selected Studies in Education—B.A.E.

Applications are not being accepted for the major in Selected Studies in Education at this time.

### Field Experience Requirements

In addition to course work, students admitted to the ITC program are required to participate in directed field experiences during each of the four semesters of the program. The field experiences progress from short term observation and participation to long term supervised practice teaching.

Students should expect these field experiences to be above and beyond the class times listed in the *Schedule of Classes* for each semester. Such field experiences typically take place in public schools throughout the greater Phoenix area. Regular attendance is required during all field experiences. Students should plan extra travel time and expect to confer with placement teachers and field facilitators before or after scheduled field experiences. To meet field experience requirements, students must plan to have their own transportation and be available during regular school hours.

Teaching is a highly demanding and extraordinarily complex profession. Students desiring to become teachers must maintain academic standards and demonstrate requisite qualifications for successful teaching, including effective interpersonal skills, basic communication skills, appropriate professional conduct, and satisfactory performance during field experience assignment.

Observation and participation assignments in the schools during first, second, and third semester field experience placements are designed to prepare students for the highly demanding performance based student teaching during semester four.

**Student Teaching.** The culminating field experience, called *student teaching*, occurs in the fourth semester of the ITC program and is a full day, full semester obligation. Student teaching is usually possible only during fall and spring semesters.

**Admission to Student Teaching (Semester IV).** To be admitted to student teaching, a student must have attained a high level of professional standards in previous field experience assignments and meet the following requirements:

1. be in good standing as defined in this policy;
2. completion of any provisional admissions requirement;
3. have no incompletes in ITC courses;
4. complete all ITC courses with a grade of "C" or better, and

5. have an approved declaration of graduation on file.

There are additional requirements for certain programs. Secondary Education majors may have no more than two required courses remaining in the academic specialization and have no more than two courses to complete in General Studies. Students must also receive approval from their specialization advisor.

Elementary and Special Education majors must have completed all core courses, all methods courses and may only have two additional courses to complete.

### Academic Specializations

Academic Specialization	Page
Art education <sup>1</sup>	257
Biological sciences	354
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Dance education <sup>1</sup>	297
Economics	
English	369
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Journa lism	495
Mathematics	420
Mus ic education <sup>4</sup>	302
Physical education	375
Physics	438
Political science	450
Social studies	464
Spanish	403

Art education and dance education concentrations are under consideration for BFA status.

2. See an advisor for details.

Applications are not being accepted at this time.

4. Students to us on either the choral/general music or instrumental music concentration under the BME degree.

Students must complete the application to student teaching and receive approval from the Office of Professional Field Experiences (EDB L114, 480 967 6255) at least 12 weeks before the beginning of the student teaching term. Student teachers must adhere to the calendar regulations and philosophy of the schools in which they are placed. Beginning and ending dates for student teaching are determined by the Office of Professional Field Experiences in cooperation with the placement schools. Because student teaching is on a full day schedule, 8 a.m. to 4 p.m. Monday through Friday for 15 consecutive weeks, student teachers are strongly encouraged to avoid extra activities and course work that

Library and Catalog: MA at least CS computer science qualitative approach to HU human and fine art SB social and behavioral sciences SG natural sciences—general education SQ natural sciences—quantitative C cultural diversity in the United States G global history and See General Studies page 83

## COLLEGE OF EDUCATION

would interfere with the heavy demands placed upon them while student teaching.

### ASU EXTENDED CAMPUS

The College of Extended Education was created in 1990 to extend the resources of ASU throughout Maricopa County, the state, and the region. The College of Extended Education is a university-wide college that oversees the ASU Extended Campus and forms partnerships with other ASU colleges, including the College of Education, to meet the instructional and informational needs of a diverse community.

The ASU Extended Campus goes beyond the boundaries of the university's three physical campuses to provide access to quality academic credit and degree programs for working adults through flexible schedules; a vast network of off-campus sites; classes scheduled days, evenings, and weekends; and innovative delivery technologies including television, the Internet, and Independent Learning. The Extended Campus also offers a variety of professional continuing education and community outreach programs.

For more information, see "ASU Extended Campus," page 703, or access the Web site at [www.asu.edu/xed](http://www.asu.edu/xed).



The ASU Downtown Center plays a key role in the ASU Extended Campus concept.

Tim Trumble photo

## ACADEMIC STANDARDS

### Preprofessional Status

Students admitted to the College of Education on *preprofessional status* are subject to the general standards of academic good standing of the university. However, students who maintain standards of academic good standing during their freshman and sophomore years do not necessarily qualify for admission to any teacher preparation program offered by the College of Education.

### Professional Program Status

Students admitted to the ITC program within the College of Education must maintain academic standards and demonstrate requisite qualifications for successful teaching, including sound physical and mental health, interpersonal skills, basic communication skills, a positive attitude, appropriate professional conduct, and satisfactory performance in field experiences. Because ITC standards are higher than those for the university, a student who is suspended from the ITC program may still be eligible to enroll in other non-ITC courses.

A copy of the Retention and Disqualification Policy for the ITC program may be obtained from the Office of Student Services, EDB 1.1-13.

College of Education faculty and placement teachers will routinely review preservice teachers' professional attributes and characteristics to determine if the student is making satisfactory progress at both midterm and final. To maintain good standing, students will need to demonstrate appropriate professional demeanor in field placements and college classes.

Students demonstrating behaviors or characteristics that make it questionable whether they can succeed in the teaching profession are reviewed by the director of the Office of Professional Field Experiences and the assistant dean of the Office of Student Services. If necessary, a review panel composed of faculty members who have had direct involvement with the student is convened. Following this review, the student may be referred to the Division of Curriculum and Instruction Standards and Appeals Committee. The committee's review may result in a decision to disqualify the student or the specification of conditions under which continued participation is permitted, i.e., probation.

Students who wish to appeal decisions of the Division of Curriculum and Instruction Standards and Appeals Committee may do so in writing to the dean of the college or the Main Campus Standards Committee. Any exceptions to the retention and disqualification policies and procedures must be approved by the Division of Curriculum and Instruction Standards and Appeals Committee and the dean of the College of Education.

### Postbaccalaureate Initial Teacher Certification (ITC) Programs

Postbaccalaureate programs prepare students for certification by the state and are designed for those who hold a bachelor's degree in an area other than education. The college offers postbaccalaureate programs in early childhood education, elementary education, secondary education, and special education. (Special education students must qualify for and be concurrently admitted to a master's degree pro-

gram in special education. For more information, call 480-965-4602). Information on postbaccalaureate programs is available through the Office of Student Services, EDB 113 (480-965-5555). The office provides academic advising and information regarding requirements, procedures, and deadline dates.

A student who wishes to be considered for entry must meet the College of Education admission requirements for postbaccalaureate programs:

1. an earned bachelor's degree from an accredited institution;
2. a cumulative GPA of 2.50 or higher for the last 60 semester hours of credit earned;
3. submission of a completed application form and supporting materials by the appropriate deadline dates during the semester before admission; and
4. completion of an academic specialization for secondary education (consult the Office of Student Services, EDB 113).

Admission is competitive and not guaranteed to all who satisfy the minimum admission criteria.

Some academic units have additional requirements. Students seeking admission to K-8 or secondary education programs (7-12) should consult the Office of Student Services in the College of Education (480-965-5555) to determine if there are additional admission requirements for their teaching fields.

Application deadlines vary. Information and applications can be downloaded via the Web at [coe.asu.edu/osa](http://coe.asu.edu/osa).

### Student Teaching

Students in a postbaccalaureate program for initial teacher certification must file student teaching applications early in the semester before the student teaching term. To be accepted for student teaching, students must:

1. attain a cumulative ASU GPA of 2.50 or higher in required professional education coursework;
2. complete all required professional education coursework other than one preapproved course that can be taken concurrently with student teaching. Secondary Education students must also receive approval from their academic specialization advisors;
3. remove all academic deficiencies such as grades of "D," "E," or "I" before placement; and
4. obtain a final approval from the Office of Professional Field Experiences (this review considers appropriate professional conduct and satisfactory performance in field settings and academic achievement).

### Certification for Teaching

The curricula for both the undergraduate and postbaccalaureate ITC programs meet the requirements for teacher certification in the State of Arizona.

In addition to the course requirements specified in this catalog, there are other requirements for teacher certification mandated by the State of Arizona including the U.S. Constitution and Arizona Constitution requirement. Some teaching areas have specific math, science, and fine arts requirements. Each student must pass the Arizona Educator Proficiency Assessment, which consists of professional knowledge and subject knowledge tests.

Because these requirements vary over program areas and may be changed at any time, students are encouraged to maintain close contact with the Office of Student Services regarding the most current state certification requirements.

The College of Education is approved by the Arizona Department of Education for the preparation of elementary, secondary, and special education teachers. Students who complete an approved program of study and meet all graduation requirements of the university and the college are recommended for certification to the Arizona Department of Education. The Office of Student Services maintains information about current certification requirements in Arizona and other states. This information includes fingerprint clearance and passing the Arizona Educator Proficiency Assessment.

The College of Education also offers courses for certified teachers leading to special endorsements by the Arizona Department of Education. Of special interest are endorsements in the areas of bilingual education, English as a second language (ESL) middle school education, reading, and school library science. The bilingual education endorsement is required of all teachers specifically responsible for providing bilingual instruction. The ESL endorsement is required of all teachers specifically responsible for providing ESL instruction. Students should contact the Office of Student Services for information and advising regarding teaching concentrations or special teaching endorsements.

### Independent Learning Course Work for Credit

It is the general policy of the College of Education not to accept course credit for *courses in education* taken through Independent Learning. Exceptions to this policy may be approved if the Independent Learning course work has been approved in advance of enrollment in the course by the student's advisor, respective program coordinator, and division director. In all such cases, an appropriate rationale must be submitted with the request to enroll.

### COLLEGE OF EDUCATION (COE)

See the *Graduate Catalog* for the COE courses.



## Division of Curriculum and Instruction

www.ed.asu.edu/coe/candi

480 965-1644

ED 426

**Carlos Julio Ovando, Director**

**Professors:** Appeton, Baker Barone, Bitter Christe, Ede sky, Fats Fores Gryder Guzzett Hude son McGowan, Ovando, Pburn Rutherford Searfoss, Stah, Staey, Surbeck Swadener Tobn, Zucker

**Associate Professors:** Anjar, Aras Benavdes Bumenfed Jones, Cohen Cohn D Gang, Gomez McCoy, Mddeton, Rader Smth, Va ejo

**Assistant Professors:** Baek Fschman Lamorey, MacSwan Roistad Tru o Young

**Clinical Associate Professor:** Garca

**Clinical Assistant Professor:** Chr st ne

**Lecturers:** Bards ey Burste n, Cocch are a, G ass Hansen Kortman, Poynor Span as Voge

### Initial Teacher Preparation Programs

App entice Teacher Program ATP  
Dinc Teacher Education Program  
Early Childhood Interprofessional Program birth thid grade  
Elementary Educat on Partnership Program  
Integrated Certification in Teacher Education INCITE for postbaccalaureate students only  
Mu ti ngual/Multicultural ML/MC Program  
Secondary Education SED 7 12  
Special Education SPE  
Teacher Education for Arizona Mathematics and Science TEAMS for postbaccalaureate students on v  
Teachin for a Diverse Future TDF

**Degrees: B.A.E., M.A., M.Ed., Ed.D., Ph.D.**

### DEGREES

#### Bachelor of Arts in Education B.A.E.

The facu ty in the Divison of Curricu im and Instruction offer several undergrauate academic programs designed to prepare persons to teach effectively in early childhood, elementary, secondary, and special education settings. Concentrations available at the undergraduate level include bilingual education, English as a second language ESL and Indian education. Programs in special education lead to Arizona teacher certification in the n entally disabled, en o tionally disabled, learn ing d sab l ties, and early childhood

education for the disab ed. Programs of study leading to special endorsements by the Arizona Department of Education are bilingual education, ESL, middle school education, reading, and school library science.

### GRADUATE PROGRAMS

The faculty in the Division of Curriculum and Instruction offer several graduate degrees in a number of majors.

See the "College of Education Graduate Degrees and Majors" table, page 189, and the *Graduate Catalog*

### BILINGUAL EDUCATION (BLE)

#### BLE 335 Language Diversity in Classrooms. (3)

*fa and sp ng*  
Issues in sociolinguistics and language variation in schools with a focus on classroom interaction, instruction, curriculum, assessment and language policy. Lecture/discussion. Lab. Corequisites: RDG 414, 481

#### BLE 400 Principles of Language Minority Education. (3)

*fa and spr ng*  
Overview of phonological and theoretical foundations of bilingual education and ESL models of instruction. Other topics include sociolinguistics and sociolinguistics. Lecture/discussion. Prerequisite: TC admission

#### BLE 409 Language-Sensitive Content Teaching. (3)

*fa and spr ng*  
For preservice students seeking K-8 certification and the endorsement in bilingual education or ESL. Lecture/discussion. Prerequisite: TC admission

#### BLE 414 Reading Methods, Management, and Assessment in BLE ESL Settings. (3)

*fa and spr ng*  
Teaching and assessing reading with emphasis on integrated curriculum and literature-based instruction for BLE ESL learners. Strategies for developing phonics, vocabulary, comprehension, and content area reading. Lecture/discussion. Prerequisite: TC admission

#### BLE 420 Science Methods, Management, and Assessment in BLE ESL Settings. (3)

*fa and spr ng*  
Methods, management strategies, and assessment procedures for teaching content to BLE ESL students in elementary schools. Lecture/discussion. Prerequisite: TC admission

#### BLE 433 Language Arts Methods, Management, and Assessment in Elementary BLE ESL Settings. (3)

*fa and spr ng*  
Social nature of oral and written first and second language acquisition and congruent teaching, management, assessment practices in BLE ESL settings. Lecture/discussion. Prerequisite: TC admission

#### BLE 455 Social Studies Methods, Management, and Assessment in Elementary BLE ESL Settings. (3)

*fa and spr ng*  
Examines methods, classroom management strategies, and assessment techniques for social studies instruction in elementary BLE ESL settings. Lecture/discussion. Prerequisite: TC admission

#### BLE 478 Student Teaching in the Elementary School. (3-15)

*fa and spr ng*  
Supervised teaching in the area of specialization. Synthesized experience in curriculum, instruction, and classroom management in a BLE ESL setting. Fee. Prerequisite: TC admission

#### BLE 480 Mathematics Methods, Management, and Assessment in Elementary BLE ESL Settings. (3)

*fa and spr ng*  
Teaching, management, and assessment of mathematics in K-8 BLE ESL settings. Lecture/discussion. Prerequisite: TC admission

#### BLE 481 Reading Practicum. (3)

*fa and spr ng*  
Applying concepts from BLE 414. Supervised school-based experiences in teaching reading to BLE ESL students. Prerequisite: TC admission

## DIVISION OF CURRICULUM AND INSTRUCTION

### **BLE 496 Field Experience. (0)**

*fall and spring*

Apprises course content in a bilingual ESL school setting. Employs observation, pupil management, planning and delivering instruction and assessment. Fee. Prerequisite: TC admission.

### **BLE 498 Pro-Seminar. (1-7)**

*fall and spring*

Small-group study and research for advanced students within the majors. Prerequisites: TC admission, major status in the department or instructor approval.

### **BLE 511 Introduction to Language Minority Education. (3)**

*once a year*

Historical, philosophical, theoretical, and pedagogical foundations of language minority education in the United States.

### **BLE 514 Bilingual Multicultural Aspects of Special Education. (3)**

*spring*

Theories and issues related to the education of bilingual and culturally diverse exceptional children.

### **BLE 515 Instructional Methods for Bilingual Students. (3)**

*fall*

Introduces general language teaching approaches and assessment strategies. Focuses on the effective teaching of limited English proficient populations. Prerequisite: BLE 511.

### **BLE 520 ESL for Children. (3)**

*spring*

Examines approaches to second language development and assessment for children congruent with recent research in second language acquisition in children. Prerequisite: BLE 511.

### **BLE 521 Primary Elementary Communication Arts in Bilingual Education. (3)**

*spring*

Examines bilingual/bicultural development of elementary school children bringing together native and second language oral and literacy development findings with educational practices. Prerequisite: BLE 511.

### **BLE 522 Literacy Biliteracy Development. (3)**

*fall*

Acquaints teachers with first and second language literacy research practice and assessment in elementary school settings. Spanish emphasis. Lecture/discussion. Cross-listed as RDG 522. Credit is awarded for only BLE 522 or RDG 522. Prerequisite: BLE 511.

### **BLE 524 Secondary Sheltered ESL Content Teaching. (3)**

*fall*

Teaching and assessing ESL adolescents in the content areas with an emphasis on integrating language acquisition principles with content learning. Lecture/small group work. Corequisite: BLE 541.

### **BLE 528 Social Studies for Bilingual ESL Teachers. (3)**

*spring*

Provides language and instructional methodologies and assessment strategies relevant to bilingual multicultural students in social studies content delivered in Spanish and English. Prerequisite: BLE 511.

### **BLE 533 Literacy in Secondary BLE ESL Settings. (3)**

*spring*

Examines first and second language literacy research practice and assessment across content areas in secondary school settings. Lecture/discussion. Cross-listed as RDG 533. Credit is awarded for only BLE 533 or RDG 533. Prerequisite: BLE 511.

### **BLE 535 Sociolinguistic Issues in Bilingual Education. (3)**

*fall*

Survey of major theoretical issues, e.g., language situations, communicative competence, language attitudes, interlanguage, sociolinguistic processes, and bilingual education. Prerequisite: BLE 511.

### **BLE 541 Nature of Bilingualism Second Language Acquisition. (3)**

*once a year*

Bilingual and second language acquisition with emphasis on children and adolescents. Stresses cognitive, social, and cultural aspects. Prerequisite: BLE 511.

### **BLE 543 Bilingual Education Models. (3)**

*once a year*

Bilingual education programs in other countries; analysis of political, social, economic, and educational implications; practice in planning bilingual education curricula. See also offerings under MCE/SED/SPE and PE. Prerequisite: BLE 511.

### **BLE 561 Parent Involvement in Language Minority Education Programs. (3)**

*fall and spring*

Examines issues, approaches and strategies for improving parental and community involvement in the schooling of language minority children and youth. Prerequisite: BLE 511.

### **BLE 565 Literature for Hispanic Youth Literatura para Jóvenes Hispanopar antes. (3)**

*spring*

Selects, analyzes and utilizes literature for Hispanic and Spanish speaking children and adolescents. Cross-listed as L S 565. Credit is awarded for only BLE 565 or L S 565.

### **BLE 580 Practicum. (1-6)**

*fall and spring*

Provides for practical application in school settings of principles of BLE/ESL. Prerequisite: instructor approval.

**Omnibus Courses.** For an explanation of courses offered but not specified, see "Omnibus Courses" page 56.

## BUSINESS EDUCATION (BUE)

### **BUE 480 Teaching Business Subjects. (3)**

*spring*

Organization and presentation of appropriate content for business subjects in the secondary school.

### **BUE 481 Technology in Business and Vocational Education. (3)**

*spring, not even years*

Emerging curriculum and instructional technology in business and vocational education: lecture, hands-on computer instruction.

### **BUE 501 Principles of Business Education. (3)**

*fall*

History, philosophy, principles, and objectives of business and distributive education.

### **BUE 502 Organization and Management of Cooperative Programs. (3)**

*fall*

Work study programs for business occupations in high schools and community colleges.

### **BUE 503 Competency-Based Business and Vocational Education. (3)**

*spring*

Development and administration of competency-based individualized programs in business and vocational education.

### **BUE 505 Current Literature in Business and Vocational Education. (3)**

*spring*

Critical analyses, generalizations and trends in business and vocational education.

### **BUE 506 Information Processing for Business and Vocational Teachers. (3)**

*summer*

Development of curriculum and strategies for teaching information processing, hardware, software evaluation and equipment acquisition in business and vocational education.

**Omnibus Courses.** For an explanation of courses offered but not specified, see "Omnibus Courses" page 56.

Literacy and critical analysis: **MA** mathematics, **CS** computer, **IT** information technology, **Q** qualitative application, **HU** humanities, **SB** social and behavioral science, **SG** strategic general core, **SQ** qualitative quantitative, **C** culture, **ver** very, **te** tented State, **G** global, **H** history, **ee** general studies, **p** page 8.

## COLLEGE OF EDUCATION

### CURRICULUM AND INSTRUCTION (DCI)

#### DCI 302 Principles and Applications of Effective Instruction. (3)

*fa and spring*  
Principles of teaching identified by research on teaching effectiveness. Application of principles to classroom practice. Prerequisites: EDP 303 education major

#### DCI 396 Field Experience I. (0)

*fa and spring*  
First semester TC Observation and limited participation in a school setting. Focus on observation of development, learning management, instruction, assessment, and motivation. Requires 4 hours per week. Fee. Corequisite: semester of the TC

#### DCI 397 Field Experience II. (0)

*fa*  
Second semester TC Observation and limited participation in a school setting. Focus on observation of development, learning management, instruction, assessment, and motivation. Requires 6 hours per week. Fee. Corequisite: semester of the TC

#### DCI 510 Teacher as Researcher. (3)

*fa spring summer*  
Introduction to teacher research as a new research genre. Offers teachers guidance on planning and conducting research on the practice. Lecture workshop

#### DCI 591 Seminar. (1-12)

*selected semesters*

#### DCI 701 Curriculum Theory and Practice. (3)

*fa and spring*  
Curriculum theory and practice as a field of study. Its current orientation and applications, modes of inquiry and community of scholars and practitioners. Seminar. Corequisite: master's level curriculum course

#### DCI 791 Interdisciplinary Research Seminar. (1-12)

*selected semesters*

**Omnibus Courses.** For an explanation of courses offered but not specifically listed in this catalog, see Omnibus Courses page 56

### EARLY CHILDHOOD EDUCATION (ECD)

#### ECD 300 Principles of Interprofessional Collaboration. (3)

*fa and spring*  
Focuses on the dispositions, experiences, knowledge, and skills necessary for interprofessional collaboration designed for young children and their families. Prerequisite: TC admission

#### ECD 310 Educational Environments: Infants/Toddlers. (3)

*fa spring summer*  
Organizing, planning, and implementing developmentally appropriate educational practices to provide optimal learning environments for infants and toddlers in group settings

#### ECD 314 The Development of Child. (3)

*fa, spring summer*  
Examines a aspect of development of children birth through age eight with implications for teachers and parents. Requires classroom observation and participation

#### ECD 315 Classroom Organization and Guidance in the Early Years. (2)

*fa and spring*  
Develops understanding and application of classroom organization and management principles, strategies, and procedures. Prerequisite: TC admission

#### ECD 322 Communication Arts in Early Childhood Education. (3)

*fa*  
Factors affecting language development. Setting conditions for learning in listening, speaking, reading, and writing. Prerequisite: ENG 213 or its equivalent postbaccalaureate certification program admissions

#### ECD 378 Practicum in Early Childhood Development. (3)

*fa and spring*  
Provides a field-based experience in selected early childhood settings. Outcomes of pre-baccalaureate education. Prerequisite: ECD 314

#### ECD 400 Inquiry Into Teaching and Learning. (3)

*fa and spring*  
Foundational basis of the early childhood field including historical roots, current practices, ethics, models of teaching, and application in early childhood settings. Prerequisite: TC admission

#### ECD 401 Integrated Curriculum and Assessment: Social Studies and Creative Arts. (3)

*fa and spring*  
Presents materials, techniques, and resources for a balanced program of social studies and aesthetic expression appropriate for children in preschool through 3rd grade with emphasis on the integrated curriculum. Prerequisite: TC admission

#### ECD 402 Integrated Curriculum and Assessment: Math and Science. (3)

*fa and spring*  
Emphasizes developmentally appropriate educational strategies and instructional techniques in teaching mathematics and science to children in preschool through 3rd grade, within an integrated curriculum approach. Prerequisite: TC admission

#### ECD 403 Educational Environments: Preschool Kindergarten Primary Grades. (3)

*fa and spring*  
Focuses on interactions between young learners and the physical and social environments encountered in preschool, kindergarten, and primary settings. Prerequisite: TC admission

#### ECD 404 Teaching Reading and Language Arts in Early Childhood. (3)

*fa and spring*  
Development of oral and written language from birth to age 8. Describes developmentally appropriate educational strategies for promoting growth in speaking, listening, reading, and writing. Prerequisite: TC admission

#### ECD 405 Practicum in Teaching Reading and Language Arts in Early Childhood. (2)

*fa and spring*  
Supervised experience teaching reading and language arts at the preschool, kindergarten, and primary grade 1-3 levels. Developmentally appropriate strategies to promote young children's speaking, listening, reading, and writing abilities. Prerequisite: TC admission

#### ECD 414 Interprofessional Practicum. (3)

*fa and spring*  
Investigates services and agencies available in the local community to parents of children with special needs. Practical experiences with an intermittent seminar format. Dispositions, knowledge, experiences, and skills necessary for interprofessional collaboration across multiple agencies and programs. Prerequisite: TC admission

#### ECD 496 Field Experience. (0)

*fa and spring*  
Applies course content in a preschool through 3rd grade setting. Emphasizes observation, focus on child-centered curriculum, planning, and delivering instruction, and assessment. Fee. Corequisite: ECD 404

#### ECD 501 Interprofessional Collaboration. (3)

*fa*  
Dispositions, knowledge, experiences, and skills necessary for interprofessional collaboration required of professionals who work with multigenerational families with young children. Preparation to implement effective strategies and workable plans to support interprofessional collaboration for providing integrated services to young children and their families

#### ECD 521 Primary Elementary Communication Arts in Bilingual Education. (3)

*spring*  
Examines bilingual/bicultural development of elementary school children bringing together native and second language, oral language and literacy development findings with educational practices. Prerequisite: BLE 511

#### ECD 522 Developmental Social Experiences in Early Childhood Education. (3)

*fa*  
Materials, techniques, aesthetic expression, creative activities, and values in the integrated curriculum

**ECD 525 Emergent Literacy. (3)**

*spring*

Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3. Lecture/discussion. Cross-listed as RDG 525. Credit is awarded for only ECD 525 or RDG 525.

**ECD 527 Mathematics in Early Childhood Education. (3)**

*fall*

Theory and practice in the use of manipulative materials for teaching mathematics to preschool and primary grade children. Prerequisite: ECD 402 or its equivalent.

**ECD 544 Play Education. (3)**

*spring and summer*

Theories of play and the educational implications of each. Practical applications at the early childhood level.

**ECD 555 Modern Practices in Early Childhood Education. (3)**

*fall and summer*

Trends and practices in instruction and resource materials and methods and techniques in early childhood education.

**ECD 601 Theories and Issues in Early Childhood Education. (3)**

*fall and summer*

Current theories and issues in early childhood education. Present issues of early childhood best practices, policy, theory, research, and evaluation that are of significance to the early childhood profession. Highlights building on the child development concept as a framework as related to theory and practice.

**ECD 733 Social and Emotional Development. (3)**

*once a year*

Inquiry into the social and emotional development dynamics in children, such as peer relationships, self-concept, and parenting processes with implications for teachers.

**ECD 744 Evaluative Procedures: Young Children. (3)**

*spring*

Critical examination and use of developmental, appropriate evaluation procedures for children from birth through age 8.

**Omnibus Courses.** For a complete list of courses offered by the Department of Early Childhood Education, see Omnibus Courses, page 56.

**ELEMENTARY EDUCATION (EED)**

**EED 334 Children's Literature and Elementary School Curriculum. (3)**

*fall and spring*

Selecting and using children's literature in various curriculum areas in elementary school classrooms with diverse student populations. Lecture/discussion. Lab. Cross-listed as RDG 334. Credit is awarded for only EED 334 or RDG 334. Prerequisite: professional program admissions or Corequisite: DC 396 or EED 496.

**EED 420 Science Methods, Management, and Assessment in the Elementary School. (3)**

*fall and spring*

Examines philosophies of science and how these relate to the implementation, management, and assessment of science teaching. Lecture/discussion. Lab. Fee. Prerequisite: TC admissions.

**EED 433 Language Arts Methods, Management, and Assessment in the Elementary School. (3)**

*fall and spring*

Theory on the social nature of oral and written language and congruent teaching materials and assessment practices. Lecture/discussion. Lab. Fee. EED 455.

**EED 444 Organizing the Classroom Culture. (1)**

*fall and spring*

Examines how teachers can create and maintain a classroom learning community within the context of an elementary school program. Discussion, workshop. Lab. Prerequisite: TC admissions.

**EED 455 Social Studies Methods, Management, and Assessment in the Elementary School. (3)**

*fall and spring*

Teaching methods, classroom management strategies, and assessment techniques for social studies instruction in the elementary grades. Lecture/discussion. Lab. Prerequisite: TC admissions.

**EED 478 Student Teaching in the Elementary School. (3–15)**

*fall and spring*

Supervised teaching in the area of specialization. Synthesized experience, curriculum, instruction, and classroom management. Fee. Prerequisite: TC admissions.

**EED 480 Mathematics Methods, Management, and Assessment in the Elementary School. (3)**

*fall and spring*

Beginning course in the teaching, management, and assessment of mathematics in grades K–8. Lecture/discussion. Lab. Prerequisite: TC admissions.

**EED 496 Field Experience. (0)**

*fall and spring*

Applies course content in a K–8 school classroom. Emphasizes observation, pupil management, planning, and delivery of instruction, and assessment. Fee.

**EED 498 Pro-Seminar. (1–7)**

*selected semesters*

Topics may include the following:

• Language and Learning

• General Studies

**EED 511 Principles of Curriculum Development. (3)**

*fall, spring, summer*

Contemporary curriculum theories. Curriculum as an interdisciplinary process of converging and effecting change.

**EED 526 Communication Arts in the Elementary School. (3)**

*spring and summer*

Critical examination of school language arts teaching, focusing on the theoretical assumptions regarding oral and written language development.

**EED 528 Social Studies in the Elementary School. (3)**

*fall and summer*

Problems and trends of current programs. Development of a balanced and articulated program of social studies.

**EED 529 Science in the Elementary School. (3)**

*spring*

Problems and trends of current programs. Development of a balanced and articulated science program.

**EED 530 Outdoor Environmental Education. (3)**

*summer*

Use of various outdoor settings as laboratories for classroom-related experience: study, observation, inquiry, research, and recreation. Includes strategies and materials for developing environmental literacy.

**EED 537 Mathematics in the Elementary School. (3)**

*fall and summer*

Contemporary mathematics teaching. Content materials, and approaches to instruction.

**EED 538 Teaching Social Studies with Literature. (3)**

*fall and summer*

Develops the rationale, resources, and strategies for adopting a literature-based approach to social studies teaching in grades K–8. Lecture/discussion. Cooperative learning. Prerequisite: EED 455 or its equivalent.

**EED 578 Student Teaching in the Elementary School. (3–15)**

*fall and spring*

Supervised teaching for postbaccalaureate students, synthesized experience in curriculum, instruction, and classroom management. Fee. Prerequisites: completion of 21 hours of identified course work from an approved program of study; GPA of 2.50; postbaccalaureate nondegree or 3.00; postbaccalaureate degree; approval of the Office of Professional Field Experiences.

**L**iteracy and critical inquiry **MA** mathematics **CS** computer statistics quantitative applications **HU** humanities and fine arts **SB** social and behavioral science **SG** natural science—general courses **SQ** natural science quantitative **C**ultural diversity in the United States **G**lobal **H**istorical. See General Studies, page 83.

## COLLEGE OF EDUCATION

### EED 581 Diagnostic Practices in Mathematics. (3)

*fa and spring*

Specific skills in diagnosing and treating children's learning difficulties in mathematics includes practical experiences both on and off campus in identifying strengths and weaknesses and in a remedial program. Prerequisite: instructor approval.

### EED 584 Internship. (1-12)

*selected semesters*

### EED 598 Special Topics. (1-4)

*selected semesters*

Topics may include the following:

- Using Math Manipulatives Elementary Schools  
Fee
- Using Math Manipulatives Middle Schools  
Fee

### EED 720 Language in Education. (3)

*once a year*

Sociolinguistic seminar on language issues in education including language acquisition, classroom interaction, language attitudes, relation to language and class/gender/ethnicity.

**Omnibus Courses.** For an explanation of courses offered but not specified, see the catalog, see Omnibus Courses, page 56.

## INDIAN EDUCATION (IED)

### IED 401 Navajo Language and Culture I. (3)

*fa*

History and culture are added components to the introduction of Navajo language reading, writing, and speaking. Emphasizes basic communication and appreciation of history and culture. Lecture/discussion.

### IED 403 Navajo Language and Culture II. (3)

*spring*

Emphasizes communication, grammar, and sentence structures. Translations, reading, writing, and discussions of proper and slang language. Includes cultural activities. Lecture/discussion. Prerequisite: IED 401.

### IED 410 History of American Indian Education. (3)

*fa and spring*

Philosophical and historical review of the development of American Indian education policies in both traditional and contemporary society. *Genera Studies: SB, C, H*

### IED 422 Methods of Teaching Indian Students. (3)

*spring*

Philosophical, methodological, and materials used in Indian education. Examines local and tribal classroom materials. Experimentation with new teaching concepts. Prerequisite: IED 410.

### IED 430 Issues in Language and Literacy of Indigenous Peoples. (3)

*spring*

Examines issues, policies, theoretical foundations, and practices of indigenous peoples and other language minority communities from a sociolinguistic and language reclamation perspective. *Genera Studies: HU, SB, C*

### IED 433 Counseling the Indian Student. (3)

*fa*

Techniques and methods used in counseling with emphasis on understanding individual cultures and values. Experimentation with new counseling concepts. Prerequisite: IED 410.

### IED 444 The Role of Governments in Native Education Policy and Administration. (3)

*fa*

Examines the interrelationship of federal and state policy, federal tribal law, and tribal sovereignty as they have shaped American Indian education. Analyzes administrative practices and personnel program and fiscal management and resources as they reflect the historical and present influence of the trade of factors. Credit is awarded for only IED 444 or 544. Lecture/seminar. *Genera Studies: SB*

### IED 460 Yaqui History and Culture. (3)

*fa*

Yaqui history and culture ranging from precontact to the present. Larger themes of Yaqui identity, belief systems, family traditions, community resistance, dispersal, and survival. *Genera Studies: HU, SB, C, H*

### IED 498 Pro-Seminar. (1-7)

*fa and spring*

Topics may include the following:

- Navajo Language 3  
Designed for Navajo and non-Navajo speaking students who have little or no knowledge of the Navajo language. Includes written form. Emphasizes development of reading, writing, and speaking skills.

### IED 500 Administration and Management of Indian Education Programs. (3)

*fa*

Emphasizes educational leadership research and practice in the schooling of American Indian students. Examines effective practices.

### IED 510 History of American Indian Education. (3)

*fa and spring*

Philosophical and historical review of the development of American Indian education policies in both traditional and contemporary society.

### IED 530 Issues in Language and Literacy of Indigenous Peoples. (3)

*spring*

Examines issues, policies, theoretical foundations, and practices of indigenous peoples and other language minority communities from a sociolinguistic and language reclamation perspective.

### IED 544 The Role of Governments in Native Education Policy and Administration. (3)

*fa*

Examines the interrelationship of federal and state policy, federal tribal law, and tribal sovereignty as they have shaped American Indian education. Analyzes administrative practices and personnel program and fiscal management and resources as they reflect the historical and present influence of the trade of factors. Credit is awarded for only IED 544 or 444. Lecture/seminar.

### IED 560 Yaqui History and Culture. (3)

*fa*

Yaqui history and culture ranging from precontact to the present. Larger themes of Yaqui identity, belief systems, family traditions, community resistance, dispersal, and survival.

### IED 594 Workshop in Indian Education. (6)

*summer*

Examines curriculum, pedagogy, community involvement, current issues, and research.

**Omnibus Courses.** For an explanation of courses offered but not specified, see the catalog, see Omnibus Courses, page 56.

## LIBRARY SCIENCE (LIS)

### LIS 410 Children's Literature. (3)

*fa, spring, summer*

Selects, analyzes, and utilizes modern and classic literature with young readers.

### LIS 510 Computers and Technology in the School Library. (3)

*fa*

Library uses of technology and computers. Fundamental concepts and issues in library media centers. Prerequisites: both LIS 571 and 581 or on instructor approval.

### LIS 533 Current Library Problems. (3)

*fa*

Critical analysis of current practices and problems in school librarianship. Prerequisites: a combination of LIS 540 and 561 and 571 and 581 or on instructor approval.

### LIS 540 Classification and Cataloging. (3)

*fa*

Descriptive cataloging and Dewey Decimal Classification of print and nonprint bibliography materials.

### LIS 561 Selection of Library Materials. (3)

*fa*

Principles and procedures used in the selection of materials for the school library.

**LIS 563 Children's Literature. (3)**

*fa spring summer*

Selects and uses children's literature and related nonprint media to support the elementary school curriculum. Cross-listed as RDG 563. Credit is awarded for only LIS 563 or RDG 563.

**LIS 565 Literature for Hispanic Youth Literatura para Jóvenes Hispanoparlantes. (3)**

*spring*

Selects, analyzes, and utilizes literature for Hispanic and Spanish speaking children and adolescents. Cross-listed as BLE 565. Credit is awarded for only BLE 565 or LIS 565.

**LIS 571 Basic Reference Resources. (3)**

*spring*

Provides reference service in the school library. Content a direct use of basic resources.

**LIS 581 School Library Administration. (3)**

*spring*

Administration of K-12 libraries and media centers.

**LIS 584 School Library Internship. (1-6)**

*fa and spring*

Prerequisites: LIS 410, 540, 561, 571, 581. Instructor approval.

**Omnibus Courses.** For an explanation of courses offered but not specified, see Omnibus Courses page 56.

**MULTICULTURAL EDUCATION (MCE)**

**MCE 446 Understanding the Culturally Diverse Child. (3)**

*once a year*

Survey of cultural and linguistic diversity in American education, including education equity, pluralism, learning styles, and roles of schools in a multicultural society.

*General Studies C*

**MCE 447 Diversity in Families and Communities in Multicultural Settings. (3)**

*fa I and spring*

Diversity and the changing role of schools in a multicultural society. Lecture, simulation, and discussion.

**Omnibus Courses.** For an explanation of courses offered but not specified, see Omnibus Courses page 56.

**READING EDUCATION (RDG)**

**RDG 301 Literacy and Instruction in the Content Areas. (3)**

*fa spring summer*

Required course for a Secondary Education candidate. Introduces theory and instructional strategies for learning written and oral texts across academic disciplines. Prerequisite: C adm ss on.

**RDG 334 Children's Literature and Elementary School Curriculum. (3)**

*fa and spring*

Selecting and using children's literature in various curriculum areas in elementary school classrooms with diverse student populations. Lecture, discussion, lab. Cross-listed as EED 334. Credit is awarded for only EED 334 or RDG 334. Prerequisite: professional program admissions. Corequisite: DCI 396 or EED 496.

**RDG 414 Teaching Reading Decoding. (3)**

*fa and spring*

Emphasizes teaching reading as part of an integrated classroom curriculum. Includes strategies, a disk for teaching decoding, phonics, vocabulary, comprehension, study skills, and content area reading. Prerequisite: ITC admissions.

**RDG 481 Reading Practicum. (3)**

*fa spring, summer*

Applies concepts from RDG 414 in a classroom setting. Students demonstrate teaching strategies under supervision. Required for Elementary Education candidates. Prerequisite: ITC admissions.

**RDG 494 Special Topics (1-4)**

*fa and spring*

Topics may include the following:

- Reading Decoding

**RDG 505 Developmental Reading. (3)**

*fa spring summer*

For classroom and special reading teachers. Specific professional skills in decoding, comprehension, and evaluation. Required for Special Reading Endorsement. Prerequisite: teaching certificate.

**RDG 507 Content Area Literacy. (3)**

*fa, spring, summer*

Theory, teaching strategies, and practical application concerning learning from text across subject matter disciplines.

**RDG 522 Literacy Biliteracy Development. (3)**

*fa*

Acquaints teachers with first and second language literacy research practice, and assessment in elementary school settings. Spanish. Emphasis on lecture, discussion. Cross-listed as BLE 522. Credit is awarded for only BLE 522 or RDG 522. Prerequisite: BLE 511.

**RDG 525 Emergent Literacy. (3)**

*spring*

Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in kindergarten to grade 3. Lecture, discussion. Cross-listed as ECD 525. Credit is awarded for only ECD 525 or RDG 525.

**RDG 530 Research Issues in Literacy. (3)**

*spring, odd years*

For graduate students interested in research on major issues related to literacy instruction. Seminar activities include reviewing quantitative and qualitative methods and analyzing literacy research. Prerequisite: COE 511 or DCI 511 or EDP 502.

**RDG 533 Literacy in Secondary BLE/ESL Settings. (3)**

*spring*

Examines first and second language literacy research practice and assessment across content areas in secondary school settings. Lecture, discussion. Cross-listed as BLE 533. Credit is awarded for only BLE 533 or RDG 533. Prerequisite: BLE 511.

**RDG 544 Adolescent Literacy Programs for New Times. (3)**

*see odd semesters*

Theories, strategies, and issues in developing, implementing, and assessing approaches to literacy instruction for today's diverse adolescent students, grades 7-12. Prerequisite: RDG 507 or instructor approval.

**RDG 550 Practicum Experiences in Elementary and Secondary Reading. (3)**

*spring and summer*

Practicum experience, including assessment and instructional techniques for classroom settings. See RDG 557 for State of Arizona reading endorsement. Lab. Prerequisite: RDG 505 or its equivalent.

**RDG 556 Assessment and Procedures in Elementary and Secondary Reading. (3)**

*fa*

Techniques for classroom and content area reading assessment and instruction. Emphasizes continuous assessment. May be taken concurrently with RDG 557. Recommended for State of Arizona reading endorsement. Lecture/lab. Prerequisite: RDG 505.

**RDG 557 Advanced Elementary and Secondary Reading Practicum. (3)**

*spring and summer*

Advanced practicum experience utilizing specialized reading and other assessment and instructional techniques for a classroom and content settings. Lab section. Recommended for State of Arizona reading endorsement. May be taken concurrently with RDG 556. Lab. Prerequisite: RDG 505. Instructor approval.

**RDG 563 Children's Literature. (3)**

*fa spring summer*

Selects and uses children's literature and related nonprint media to support the elementary school curriculum. Cross-listed as LIS 563. Credit is awarded for only LIS 563 or RDG 563.

Literacy and literacy MA that is CS computer literacy quantitative application HU humanities and SB social behavior science SG agricultural engineering core courses SQ natural science quantitative literacy the United States GGBA H for CA. See General Studies page 83.

## COLLEGE OF EDUCATION

### RDG 581 Literature-Based Reading Programs. (3)

*fa spring, summer*

For classroom and precat reading teacher. The e of literature n the a qu s tion and deve opment of teracy Spe f c suggest ons for he p ng students earn t read and r expand t e r read ng ab ty w th terat re ntrodu es literature stud es Prerequ s te teach ng cert f cate

### RDG 582 Practicum: Literature Studies. (3)

*spring*

Pract ca app cat o of literature study group pr nc p e n f e d s les or through on campus s mu at ons e ture superv sed pract ce Prerequ s te RDG 581 or n tru tor approva

### RDG 596 Gender, Culture, and Literacies. (3)

*spring*

nf uen e of gender and culture o wrtten ora and post typograph ca texts Sem nar

### RDG 630 Research in Literacy. (3)

*selected semesters*

For advanced graduate tudents interested n app ed research prob ems teratu e of teracy n tru tion and major sues related to teracy resea c . Prerequ s te nstructor approva

**Omnibus Courses.** For a exp anat on of courses offered but not specif ca y sted n th s cata og ee Omnibus Course page 56

## SECONDARY EDUCATION (SED)

### SED 400 Principles of Effective Instruction in Secondary Education. (3)

*fa spring summer*

Exam nes d ffe r mode of edu at Deve ops and app es appro prale teach ng pract ces for each mode to sec dary schoo c ass rooms Lecture d scus on Prerequ s te TC adm s on

### SED 403 Principles, Curricula, and Methods. (3)

*fa spring summer*

Advan ed eve of deve opme t of k owledge a d sk s f nstruct ona p ann ng and methods of tea h ng and eva uat ng n the secondary schoo Req res observat on part pat on Prerequ s te TC adm s on

### SED 478 Student Teaching in Secondary Schools. (3–15)

*fa and spring*

Prat ce f teach ng Re at onsh p of theory and p act ce n teach ng Fee Prerequ s te TC adm ss on

### SED 480 Special Methods of Teaching Social Studies. (3)

*fa and pr ng*

nterd sc p nary approaches product on and co ect on of mater a s Prerequ s te TC adm s on

### SED 496 Field Experience. (0)

*fa and spring*

App es cour e content n a secondary schoo sett ng. Emphas zes observat on pup managem t p ann ng and de ver ng nstruct on and a ses ment Fee orequ te SED 403

### SED 501 Introduction to Effective Instruction. (6)

*fa , spring s mmer*

ntrod ctory course for postba cca aureate cert f cat on program n sec ondary ed at n Emphas zes deve p ng bas c classroom manage ment str ct on and eva uat n des a f e d ass gnment of at east 120 h urs Prerequ s te adm ss on to postba cca aureate cert f c t on program

### SED 522 Secondary School Curriculum Development (3)

*fa spring mmer*

Soc a p cesses ssues pr n p es patterns and p cedures n c r r uum deve opment

### SED 533 Improving Instruction in Secondary Schools. (3)

*fa sp ng summer*

Ana yses of procedures methods, techn q e and exper ments n teach ng n e ondary scho s Prerequ s tes SED 478, 578

### SED 577 Issues and Trends in Secondary Education. (3)

*selected semesters*

Ana yses of ay and profes ona reports prob ems and ssues n Amer can secondary ed cat on Prerequ s tes SED 478, 578

### SED 578 Student Teaching in the Secondary Schools. (3–15)

*fa and spring*

Pract ce of tea h ng Re at onsh p of theory and pract e n teach ng Postba cca aureate student on y Fee Prerequ s tes mp et on of approved postba cca aureate program m n mum 2.50 GPA approva of the Off e of Profess ona F e d Exper ence

### SED 588 Human Relations in the Secondary Schools. (3)

*once a year*

Prob ems n human re at ons nherent n the interact on of pup s teachers adm nstrators nonprofess ona staff, and aymen Prerequ s tes SED 478, 578

### SED 598 Special Topics. (1–4)

*selected semesters*

Top cs may ncude the fo ow ng

- Us ng Math Man pu at ves M d d e Schoo s Fee

### SED 711 Secondary Curriculum Development. (3)

*spring and summ r*

Theor es and pro e ses f deve op ng cur cu um eva uat on of researc Prerequ s tes SED 4 8 522 r ts equ va ent 578

### SED 722 Improvement of Instruction in the Secondary School. (3)

*fa*

Eva uates the research; ss es and theore related to the mprove ment f nstruct on Prerequ s te SED 533

**Omnibus Courses.** For an exp anat on of courses offered but not specif ca y sted n th s cata og, see Omnibus Courses page 56

## SPECIAL EDUCATION (SPE)

### SPE 294 Special Topics (1–4)

*selected semesters*

### SPE 309 Basic Special Education Curriculum. (3)

*fa spring summer*

ntrodu es curr cu ar pract ces used nc us on assrooms

### SPE 311 Orientation to Education of Exceptional Children. (3)

*fa spr g summer*

ncudes g fted m d y hand apped severe y hand capped and the b ngua mu t cu tura except o a ch d

*Genera Stud es SB*

### SPE 312 Mental Retardation. (3)

*fa spring summer*

Character st cs and assessment spec f c to menta retardat on Emphas zes term no ogy deve op ent educat ona programm ng, and therapeut c pro edures Prerequ s te TC adm ss on

### SPE 314 Introduction to Bil'ngual Mult'cu tura Spec al Educa tion. (3)

*fa spring summer*

Theoret ca background and pract ca app cat on f genera ssues regard ng the edu at on of b ngua mu t cu tura hand capped ch dren Prerequ s te ITC adm s on

### SPE 336 Behavioral and Emotional Problems in Children. (3)

*fa spring summer*

Character st c and assessment spec f c to emot ona y and behav or a y d sturbed ch dren Emphas zes term no ogy deve opment and educat ona programm ng Prerequ s te TC adm ss on

### SPE 361 Introduction to Learning Disabilities. (3)

*fa spring s mmer*

Character st cs and asses ment spec f c to ear ng dsab tes Emphas zes term no ogy deve opment, a d educat ona program m ng Prerequ s te TC adm ss on

### SPE 394 Special Topics (1–4)

*fa and spring*

Top cs may nc de the fo ow ng:

- Bas c Spec a Educat on Curr cu um 3
  - nc us on Pract ces at the Se ondary Leve 3
  - Qua ty Pract ces n the Co aborat ve C assroom 3
- Prerequ s te TC adm s on

### SPE 411 Parent Involvement and Regulatory Issues. (3)

*fa and spring*

Emphas zes parent and schoo re at ons through effect ve commun ca t on and state and federa regu at ons mpa t ng erv ces for the hand capped Prerequ s te TC adm ss on