Volume 31 JUNE, 1916 Number 1

## BULLETIN

OF THE

# TEMPE NORMAL **SCHOOL**

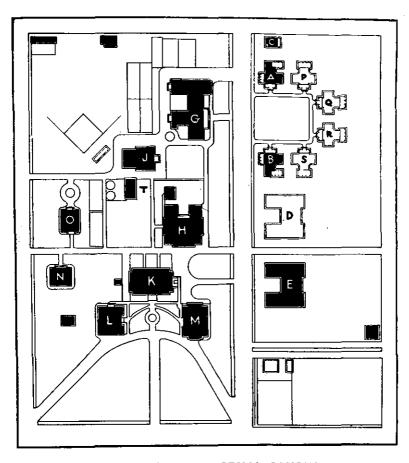
OF

# ARIZONA

AT

TEMPE, ARIZONA





### GENERAL PLAN OF NORMAL CAMPUS

### School Buildings

- K. Main Building
- H. Training School
- L. Science Building
- M. Auditorium and Gymnasium D. Proposed Building
- E. Industrial Arts Building
- F. Farm Machinery
- N. President's Cottage

### **Dormitories**

- O. Boys' Dormitory
- J. Dining Hall
- G. Main Girls' Dormitory
- C. Caretaker's Cottage
- T. Heating Plant

- A. and B. Completed unit cottages of Girls' Dormitory Group
- P, Q, R. S. Proposed unit cottages

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# ARIZONA

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### TEMPE, ARIZONA

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# Calendar 1916-17

### 1916

First Semester begins	September 11
Entrance Examination and Classification	September 11-12
First Quarter ends	November 10
Second Quarter begins	November 13
Thanksgiving Vacation	November 23-24
Christmas Vacation begins	December 22
School re-opens	January 2
1917	
First Semester ends	January 19
Second Semester begins	January 22
Entrance Examination and Classification	January 23-24
Third Quarter ends	March 30
Fourth Quarter begins	April 2
Examination and Commencement President	Tuna 9 8

# Boards and Officials

### NORMAL BOARD OF EDUCATION

Hon. C. O. Case, Supt. Public Instruction	
Chas. C. Woolf, LL B.	
Dr. B. B. Moeur, Secretary	Tempe
OFFICIAL BOARD OF VISITORS	
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B. A. Packard	Douglas
C. G. Jones	Tempe
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Parley L. Blake, '11, Vice-President	-
Miss Anna E. Blount, '13, Secretary	
Miss Flora M. Thew, '13, Treasurer	_
STATE BOARD OF EDUCATION	
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Hon, C. O. Case, Supt. Public Instruction	
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Dr. R. H. H. Blome, Principal Northern Arizona Normal	
School	Flagstaff
W. E. Lutz, Supt. Schools	Morenci
W. Curtis Miller, County Supt. Schools	Prescott
John D. Loper, City Supt. Schools	Phoenix
<del></del>	
STATE BOARD OF EXAMINERS	
Hon. C. O. Case, Supt. Public Instruction	Phoenix
A. H. Fulton, High School Teacher	Phoenix
Alma Davis, Principal Alma School	Моза

# Faculty 1916-17

A. J. Matthews, PresidentSchool Law and School Economy
F. M. Irish, AssistantPhysical Science and Military Drill
W. J. Anderson, B. S., National University, ChicagoArt
J. L. Johnston, Hershey Music School, ChicagoVocal Music
George M. Frizzell, B. Pd., State Normal School,
Warrensburg, Mo
James F. Hall, A. M., Harvard UniversityAncient Languages
A. B. Clark, Chicago Normal SchoolManual Training
Edith Salmans, B. S., Ohio Wesleyan UnivModern Languages
Lillias D. Francis, Pratt Institute
James L. Felton, A. M., University of ChicagoEnglish
Ira D. Payne, A. B., Stanford University
Education and Director of Training School
Ruth M. Wright, Pratt Institute, Library SchoolLibrarian
John B. Griffing, A. M., Columbia UniversityAgriculture
Anna R. Stewart, Tempe Normal School
Assistant in Home Economics
John R. Murdock, B. S., Normal School, Kirksville, Mo
History and Civics
R. B. Beckwith, A. B., Olivet CollegeBiological Science
George H. Schaeffer, A. B., Pennsylvania State College
E. Blanche Pilcher, A. B., University of Kansas
Mary A. Blair, A. B., Olivet College
Elecution and Physical Culture
Victoria Avakian, Los Angeles Art School
Esther A. McKelvy, A. B., University of Kansas
Assistant Librarian
L. W. Fike, A. M., University of California Education
F. W. Hiatt, M. S., University of Chicago
Earth Science and Physiology
Dant of Commerce

### Faculty-Continued

### CRITIC TEACHERS

Mary B. McNulty, Tempe Normal SchoolPrimary Grades
Leona M. Haulot, Tempe Normal SchoolGrammar Grades
Louise B. Lynd, Tempe Normal SchoolGrammar Grades
Mrs. Ida O'Connor, Tempe Normal SchoolPrimary Grades
Olive M. Gerrish, Columbia School of Music, Chicago
Theresa Anderson, B. Pd., Michigan State Normal College
Amanda L. Zeller, National Kindergarten College, Chicago
Helen C. Roberts, Tempe Normal SchoolPrimary Grades
Rural Critic
•
No. of the last of
ADMINISTRATIVE OFFICERS
A. J. MatthewsPresident
Laura Dobbs Secretary to President and Board
Amelia Kudobe
Anna H. RidenourPreceptress of Girls' Dormitories
Mrs. Erma E. Crawford

# The Tempe Normal School of Arizona

### General Information

### ESTABLISHMENT AND PURPOSE

By an Act of the Legislative Assembly of Arizona, approved March 10, 1885, provision was made for the establishment of a Normal School at Tempe, Arizona. The act states the purposes for which this institution was founded to be "the instruction of persons, both male and female, in the art of teaching, and in all the various branches that pertain to a good common school education; also to give instruction in mechanical arts and in husbandry and agricultural chemistry, in the fundamental laws of the United States and in what regards the rights and duties of citizens."

### LOCATION

It would be difficult to find a location for a school of this kind more favorable than Tempe, a town of 1,800 inhabitants, distant only twenty minutes' ride from Phoenix, the capital of Arizona. Lying near the center of population of the state, Tempe is conveniently reached by rail over the Arizona Eastern, which gives direct connection with the main lines of the Southern Pacific and Santa Fe systems, thus bringing even the most distant counties within from eight to twenty hours' journey. The convenient railway connections are appreciated by those students who desire to make the most of their holiday vacations. The fertile fields of the Salt River Valley surround the town, delighting the eye with their perpetual verdure and insuring an unfailing supply of fresh fruits and vegetables. The climate during the whole school year is not only delightful but wholesome and conducive to study. Snow is unknown and outdoor athletics and field excursions are carried on throughout the year.

Parents will derive satisfaction from the knowledge that the moral and social atmosphere is all that could be desired. The residents of the community are thrifty and industrious Americans, most of whom have come hither from the middle and eastern states. These people are actively interested in the welfare of the Normal School and pride themselves upon surrounding the students with wholesome influences. As the sale of liquors is prohibited in Arizona, the undesirable influence of the saloon is entirely eliminated. The absence of the distractions of a large city is a distinct advantage to the student who wishes to make the most of his time and opportunities.

### THE CAMPUS

The campus is one of the most beautiful spots in the state. It comprises thirty acres of fine level land within convenient walking distance of the business portion of the town, and is arranged in a most attractive manner with broad, shady lawns, cement walks and graveled drives, and a profusion of trees, shrubs and flowers. Ten substantial buildings are well distributed over the grounds, and to the picture one must add the view of the distant mountains with their ever-changing lights and shadows and wonderful coloring. Ample facilities for outdoor recreation are provided in numerous tennis courts of approved construction, basketball courts, athletic field, running track, and baseball diamond. The school gardens afford the necessary training for the students in agriculture, and at the same time provide fresh vegetables for the table.

Thirty acres adjoining the campus have been rented for a term of years, thus affording ample opportunity for experimental work in all lines of agriculture, stock breeding, etc.

### Description of Buildings

### MAIN BUILDING

There is a central group comprising the main building, science hall, and auditorium which enclose a quadrangle of green sward in the center of which is a fountain containing various water plants. The first named of these buildings, which are all of red brick and stone, was erected in 1894. Its

three stories give ample space for lecture rooms for the academic subjects, a large assembly hall with a seating capacity of three hundred and a library capable of housing ten thousand volumes and seating a hundred readers. The building is well lighted and ventilated and supplied with sanitary drinking fountains on each floor. Works of art, trophy cases and pictures, the gifts of the several graduating classes, adorn the halls. The basement has several large rooms which are now used by the student paper and for armory purposes.

### SCIENCE HALL

One of the newest and best equipped buildings on the campus is the science hall, 92x70 feet, a commodious two-story structure. It provides on the first floor to the right and left of the entrance three large well-appointed rooms for the offices of the president and secretary of the faculty. The rest of the floor is given up to the laboratories for physical, chemical and earth sciences. The laboratory for physiography and geography is very fully equipped with maps, charts, modeling tables, relief models, etc. A thermometer shelter containing a thermograph and a full set of thermometers is located close by on the campus.

The laboratories for chemistry and physics are spacious and well supplied with all the necessary apparatus, including side tables, sinks and special apparatus for distilling water. Each table is equipped with gas, electricity and water. Between these rooms is a lecture theatre fitted with a projection lantern, electric generator, switchboard for control of demonstration currents, draft chambers and demonstration table. There are other small rooms devoted to photographic work, repair work and storage of stock.

The laboratories for biology and physiology are situated on the second floor. They have, beside the necessary equipment for work in these sciences, a large aquarium for the collection and preservation of specimens for class use, a microtome and a paraffin bath for the preparation and mounting of microscopic slides and a centrifuge for analysis of liquids. The lecture theatre is conveniently placed and is equipped with projection apparatus with microscopic attachments.

There is also on this floor a museum with a working collection representative of the fauna and flora of Arizona and of its mineral resources.

### **AUDITORIUM AND GYMNASIUM**

The auditorium, 72x100 feet is by far the best of its kind in the state. With the balcony it has a seating capacity of one thousand. The acoustic properties, the means of ventilating, heating and emptying the buildings are everything that can be desired. The stage and stage properties are of the best and enable the school to stage the largest companies that come to the valley. The school and the community are treated each year to a number of high class entertainments that bring to us some of the best talent on the stage and platform today.

The gymnasium is fitted up with the usual apparatus, lockers, dressing-rooms and shower baths. Two galleries provide seating capacity for two hundred spectators, while as many

more can be seated on the floor of the gymnasium.

### TRAINING SCHOOL

This building is located close to and south of the central group. It has a floor space of 120x136 feet and contains two offices, eleven classrooms and a large double assembly, all on one floor. The classrooms are so arranged that easy access is had from each to the assembly. A fully equipped kindergarten department is housed in this building. A marked feature is the lighting and ventilation of all the rooms. The play activities of the pupils are carried on under the supervision of the teachers. There is a separate playground with special equipment for this school. Besides the usual furniture of the school, there is a library of over 700 volumes suited to the work of the grades, two pianos, a grafanola and a reflectoscope.

### INDUSTRIAL ARTS BUILDING

This building, 130x135, is three stories, including a basement, and constructed of concrete faced with cream pressed brick. The lower or main floor is taken up entirely with the manual arts. On the left of the re-entering court is the office and library and draughting room. Behind these is placed the lumber supply room, woodshop, pattern shop, and machine room. On the left of the court there are rooms for textiles, book binding and printing, finishing woodwork and a lecture theatre for the use of all departments housed in this building. This lecture room is equipped with improved apparatus for the projection of lantern slides and opaque objects upon an aluminum-coated screen. A portion of the north wing is devoted

to laboratory and classroom space for the work in agriculture.

The south half of the upper floor is devoted to the work in household arts. This department includes an office, a classroom, two sewing rooms, a fitting room, cooking room and a laundry. On the north side of this floor are located the rooms of the art department. These include two drawing rooms with north light, clay modeling rooms and glazing and casting rooms and the offices of the instructors.

The basement provides for work in sheet metal, forging and foundry, also large stock rooms and storage space. The building is provided with an elevator for the convenient handling of heavy material.

### DORMITORIES

These buildings are models of comfort and attractiveness. The boys' dormitory is a two-story structure with basement. Baths and toilets are provided on each floor. There are in all about twenty rooms, each intended to accommodate two students. Each room is furnished with two beds, bedding hot and cold water, electric light and steam heat. A large sleeping porch, which will allow all of the boys to sleep outdoors, has been added recently, and several two-room bungalows have been erected near by for the use of those young men who prefer such accommodations. These are steam heated, electric lighted and provided with running water. A member of the faculty lives in the dormitory and exercises supervision over the young men at all times.

The main dormitory for the girls will accommodate about 135, with two in each room. The rooms are fitted up similarly to those of the boys' dormitory. In addition the girls have the use of two large parlors and a sitting room. A piano is also provided for their entertainment. The outdoor sleeping porch for this building is in the form of a wing, open on three sides to the air and two stories in height. It is screened all round, fitted with storm curtains, and affords room for all occupants of the building, who are thus enabled to sleep comfortably in the open air the entire year.

Across the way and west of the present dormitory a group, consisting of five units, arranged around a patio, will be erected in the near future to meet the growing needs for accommodation for the girls. Each unit will house about thirty-five, and will be furnished after the same style as the main dormitory. Experienced preceptresses will be in charge of each

building to look after the comfort and needs of the girls in every way. Two of these units have been completed and are now occupied.

### DINING HALL

Situated very conveniently to the dormitories is the dining hall. It has a seating capacity of two hundred, and is particularly for non-resident students. Everything that the market affords in the way of fresh fruits, vegetables and meats and all that the culinary art can provide is furnished to students and members of the faculty alike. It is in charge of a specially trained matron who is responsible for the cleanliness and efficiency of the service.

### HOSPITAL

The new hospital building is located in a suitable section of the campus north of the President's residence. It is a thoroughly modern fireproof structure of concrete with properly equipped examination rooms, operating rooms, girls' ward, boys' ward, isolation ward, nurses' suite and every other essential feature contributing to the proper care of those cases of illness which cannot be handled effectively in the dormitories. The addition of this building to the system greatly facilitates administration, enabling the management to provide suitable care for the inevitable cases of sickness which must occur annually among so large a body of students.

### THE PRESIDENT'S RESIDENCE

This is a substantial two-story brick structure, harmonizing well with the general plan of the building group. It is situated near the main group and has splendid views from all sides.

### HEATING SYSTEM

All the buildings are heated by steam heat furnished by a central heating plant provided with boilers having a combined capacity of one hundred and eighty horsepower.

### EXPENSES OF STUDENTS

DORMITORIES: Board, room, light, heat, etc., are furnished for \$16.75 per school month of four weeks, payable monthly in advance. There is an additional charge of \$1.00 per month for room laundry. (No allowance is made for vacations, absence over week-ends, or absence due to disciplinary action.)

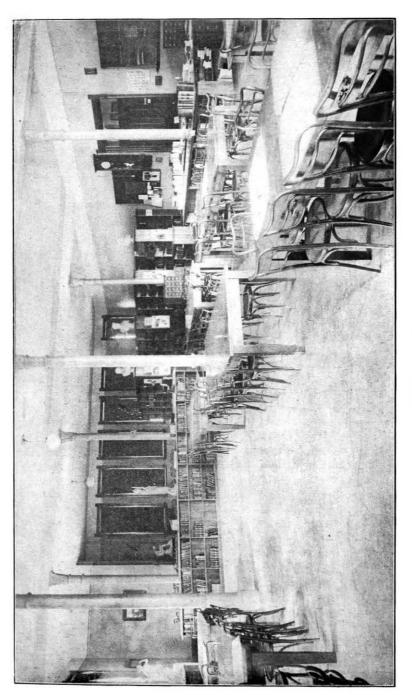


EXHIBIT IN INDUSTRIAL ARTS BUILDING

Dormitory students are required to deposit \$5.00 before taking possession of a room. This amount will be refunded at the close of the year, less such charges as may be made for careless destruction or damage to dormitory furniture and equipment. Board and room may be secured, with the approval of the faculty, in private families in Tempe at from \$22 to \$28 per month.

REGISTRATION FEE: All students are required to pay an annual registration fee of \$5.00 to be paid in advance on date of registration. This fund is used for student supplies, hospital service, and such other purposes for the benefit of the students and school as the Board may approve.

TUITION: Tuition is free to all students of this State who enter the Normal with the intention of completing the work leading to graduation in either the professional or the academic course. A fee of \$5 per quarter, payable in advance, is due from all students who desire to engage in work of a special or irregular nature without intention of completing either a professional or academic course.

Students entering the school from other States will be required to furnish a health certificate from a physician appointed by the Normal School; must pursue successfully the full amount of work required of students in any course; and must sign a declaration of intention to teach in the public schools after graduating from the Normal School.

Text-Books: The necessary outlay for books and stationery varies from \$10 to \$15 per year. Examination paper, pens, ink, pencils, and the like are furnished the students without expense.

MILITARY UNIFORM AND GYMNASIUM COSTUME: The cost of these articles varies somewhat with the taste and preference of the student. The gymnasium costume usually costs from three to four dollars, and the style is fixed by conference with the director. The style of military uniform conforms to the regulations of the United States Army, but the quality is fixed by vote of the company, and costs usually between fifteen and twenty dollars. It should be noted that, as the uniform is worn three days in the week, it easily saves the cost of at least one civilian suit during the year and therefore is hardly to be considered an extra expense.

It will be noted from the foregoing that the State of Arizona provides the advantages of a first-class education at an

expense to the student not greatly in advance of that incurred by the average young man or woman at home. This, together with the fact that there is in Arizona a constantly increasing demand for well trained teachers, is worthy of thoughtful consideration by those who, having completed the work of the public school or the high school, are contemplating the continuation of their education along academic or professional lines.

### **GOVERNMENT OF STUDENTS**

Students who come from homes outside of Tempe or who cannot live with relatives in Tempe are advised to live in the dormitories. Boarding and rooming places outside of the dormitories must be approved by the faculty, and the faculty regulations governing the dormitories must be observed by such students.

Students entering the dormitories may not leave them to board or room outside until a written or personal request is made by the parent or guardian directly to the President. The right to change the boarding or rooming place of a student on the outside is reserved by the faculty when such place is not satisfactory or does not co-operate in enforcing the regulations of the school.

It is the judgment of the faculty that the environment of all the students entrusted to their care should be the best, and it is with this end in view that strict regulations are made as to the conduct of the students both on and off the campus. It is understood always that when a student cannot and does not conform to the rules laid down for the welfare of the school such student will be asked to withdraw from the institution.

### **DEPARTMENTS**

The school is organized into three departments, the Normal School, the Training School, and the School of Industrial Arts. The Normal School offers four courses; to those who have completed the eighth grade of the public school, a five-year English course or a five-year classical course; a two-year course to those who have finished a four-year high school course; and a four-year academic course to those who do not expect to become teachers, and who, therefore, do not desire to pursue a professional course.

The Training School is primarily intended to give the Senior class of the Normal School actual experience in teaching under the supervision and advice of trained critic teachers.

The course includes the eight grades of the public school course for Arizona, and articulates directly with the first year of the Normal course; thus a pupil entering the first grade of the Training School may continue his education without interruption, to the completion of his Normal or academic work and the reception of his diploma. Students not fully prepared to enter the work of the Normal school may find it to their advantage to complete their preparatory work in the Training School.

The School of Industrial Arts offers special courses to those who do not desire to secure the regular teachers' diploma, but who wish to procure special diplomas entitling them to teach home economics, manual training, art, music, kindergarten, agriculture or commerce.

### CORRESPONDENCE

Any information regarding studies, credits, expenses, etc., and requests for catalogues and announcements should be directed to the office of the President, Tempe Normal School, Tempe, Arizona. Those who contemplate attending the Normal School should write stating the time of their prospective arrival in order that they may be met at the train. In case incoming students find no one at the station to meet them, they should proceed directly to the Normal School, where they will be taken care of at the office of the President.

### Admission and Graduation

Admission to the Normal department will be required to pass a satisfactory examination. Certificates from an accredited grammar school or recommendations from teachers may be accepted in lieu of such parts of this examination as the faculty may decide.

Admission to Advanced Standing: Candidates for advanced standing in the Normal department must convince the faculty that their preparation for any particular subject has been sufficiently thorough to enable them to pursue it profitably. This preparation may be shown either by an examination, by class records in the Normal School or by the certificate of accredited schools.

ADMISSION FOR HIGH SCHOOL GRADUATES: Graduates from high schools maintaining a full four-year High School course will be admitted to a special two-year professional course. Provided, that the High School course pursued conforms to the academic requirements of this Normal School. Graduates from such a course will receive a diploma which will entitle them to teach for life in the public schools of Arizona, California and other states, and will entitle them to at least one year's credit on a university or college course.

TIME OF ADMISSION: Students will find it greatly to their advantage to enter the Normal School at the beginning of each semester; but they will be admitted at any time by special arrangement of work.

GRADUATION: I. In order to receive a diploma from this institution, a student must have attained the age of 18 years.

- 2. No student will be admitted to senior standing who has five hours work per week for the year, in addition to the regular senior course, or its equivalent, without the consent of faculty.
- 3. Candidates for graduation must have completed at least one full year's work in this school, and, in addition to the required standing in scholarship, must give satisfactory evidence of a good moral character and the executive ability necessary to the proper management of a school.
- 4. Students from other institutions applying for senior standing must have completed a four-year high school course, and in addition thereto must have completed some of the required professional units in a college or normal school and have had some experience in teaching in the public schools.
- 5. The diploma entitles the holder to teach in the public schools of Arizona during life without examination. They are also accredited in the State of California and in several other states.

EXAMINATION AND REPORTS: Students must attend such examinations as may be required during the year, and such other examinations as may be required by the faculty or Board of Education upon entering or before graduating from the Normal School, but final grades are based upon both class standing and examination. Examinations are written or oral and are conducted by the instructors in charge of the several subjects. Examinations are held at irregular intervals, gen-

erally without notice and occupy only the length of the usual recitation period.

A quarterly report is made to every student showing his standing in each subject studied, and a copy of this report is forwarded to the parent or guardian. Standings are indicated by letters. A student who satisfactorily completes a subject is assigned a grade of C; A and B are assigned for grades of excellence above passing; D indicates a condition to be removed; and E indicates a failure, and that the work must be repeated.

Semester grades only are effective in determining the student's standing.

### COURSE OF STUDY

### To Secure Regular Normal Diploma

REGULATIONS OF STATE BOARD: In conformity with the law requiring the normal schools of Arizona to maintain uniform courses of study for the purpose of securing the regular normal diploma to be approved by the State Board of Education, the following regulations were approved by said Board of Education:

- 1. The minimum length of the school year shall be thirty-eight (38) weeks, exclusive of summer school.
- 2. There shall be three regular courses of study leading to graduation for the purpose of securing a diploma to teach in the schools of this state.
- (a) A minimum English course of five years for graduates from the eighth grade of the public schools.
- (b) A minimum classical course of five years for graduates from the eighth grade of the public schools.
- (c) A minimum course of two years for graduates from a four-year high school course.
- 3. Students who are graduates from a four-year high school course, accredited by the Normal School, and in addition thereto have taken some professional work in a college, university or normal school, and who have one year's experience in teaching in the public schools, may receive credit on the two years' course, but in all such cases students will be required to take at least one year's work in residence before receiving a Normal diploma.

In order to simplify the arrangement and uniformity of the course the work is reduced to units. The term unit is used to denote a subject studied through one school year with five class exercises or periods per week, two laboratory periods to equal one class exercise. The school year is divided into two semesters, each of nineteen weeks. A recitation period is 45 minutes. A minimum of fifteen academic units and ten professional units is required for the Normal diploma, as follows:

# UNITS FOR SECURING THE REGULAR NORMAL DIPLOMA

FOR THE FIVE-YEAR COURSE FOR STUDENTS WHO HAVE COM-PLETED THE COMMON SCHOOLS

English	3	\
Mathematics (Arithmetic, ½; Algebra, 1½; Geometry, 1)	3	)
Science		Total Academic
History and Civics	2	Units, 15.
Physiography, ½; Physiology, ½	ĭ	
Electives	4	1
Electives include Languages, culture and Manual Training		ome Economics, Agri-
Psychology and Pedagogy	1	1
History and Philosophy of Educa-	ī	
Practice Teaching	1	
Method	r	Total Professional
Reviews—Arith., ½; Gram., ½; Geog., ½; Read., ½; Spell., ½	21/2	Units, 10.
School Law and School Economy	1/2	
Draw., 1; Music, 1	2	
Military Drill or Physical Culture	I	]

The following courses are offered:

- Course A. A five-year professional course for graduates of the grammar schools.
- Course B. A five-year professional course for graduates of the grammar school, which includes the languages (Latin, German and Spanish).
- Course C. A two-year professional course for graduates of a four-year high school course.
- Course D. A four-year academic course for students who do not desire to prepare for teaching.

Special courses in School Art, Industrial Arts, Home Economics Kindergarten Training, Agriculture, and Commerce.

Students completing courses A, B, or C receive the regular Normal diploma which is granted for life and entitles the holder to teach without examination in the public schools of Arizona. California, Oregon, Washington, Montana, Idaho, Michigan, New York, and, in fact, in any state in which credentials of any kind are accepted. As such diplomas represent four years of academic and two years of professional work, the holders are usually accredited with one year's work on college and university courses.

Graduates from Course D receive a diploma equivalent to a high school diploma. This diploma represents four years (17 units) of high school work and admits the holder to Freshman standing in a college or university. This diploma does not entitle the holder to teach.

Graduates from the special courses are granted diplomas which entitle the holder to teach the special subject for which the diploma is granted in any of the public schools of the state.

A candidate for any diploma must make his candidacy known not later than the beginning of that school year at the close of which he expects to graduate, and must at the same time state for what diploma he is a candidate.

Diplomas are awarded by the Normal Board of Education upon the recommendation of the faculty and no diploma will be awarded to any person until all the work prescribed by the course and pursued by the student has been satisfactorily completed. The regular graduations occur in January and June, but the diplomas are awarded whenever the work of the course has been satisfactorily completed. Mid-year graduates are classified as members of the class of the following June.

### COURSE A

### FIVE-YEAR PROFESSIONAL COURSE FOR GRAMMAR SCHOOL GRADUATES

### FIRST YEAR

First Semester H	TS.	Second Semester Hi	TS.
English (1) (Rhet. and Comp.)	<b>)</b>	English (1) (Rhet, and Comp.)	
Library	- 5	Library	5
Algebra (1)	. 5	Algebra (1)	5
Biology (1)	. 5	Biology (2)	5
Spelling and Word Analysis	. 5	Reading and Methods of	
Drawing (1)	. 4	Study	8
Manual Training (1) or Home	3	Drawing (1)	4
Economics (1)	. 2	Manual Training (1) or Home	
		Economics (1)	2
SEC	OND	YEAR	
English (2) (English Lit.)		English (2) (English Lit.)	
Library	. 5	Library	Б
Ancient History (1)		Ancient History (1)	5
Algebra (3)	5	Arithmetic (1)	. 5
Agriculture (1)	5	Agriculture (1)	. 5
Music (1)	. 4	Music (1)	. 4
TH	IIRD	YEAR	
English (3) (American Lit.)		English (3) (American Lit.)	
Library	5	Library	. 5
Geometry	5	Geometry	. 5
Physics (1)		Chemistry	. 5
Modern History (2)		U. S. History (3)	
Drawing (2)	,	Drawing (2)	. 2
Manual Training (2) or Hom		Manual Training (2) or Home	
Economics (2)	3	Economics (2)	. 3
របរ	NIOR	YEAR	
Physiography	5	Geography	. 5
Science of Government		Physiology	
*English Grammar	E	*English Grammar )	
*Arithmetic	ช	*Arithmetic	. 6
Psychology	<b>5</b>	Pedagogy	. 5
Music	2	Music	. •
Writing	. 2	Writing	. 2

#### SENIOR YEAR

First Semester	Hrs.	Second Semester	Hrs.
Methods	5	Methods (and Library	
Teaching	5	Methods)	5
Ethics	5	Teaching	5
*Commercial Law	1	History of Education	б
*School Law and School		*Commercial Law	1
Economy	4	*School Law and School	
Agriculture	2	Economy	4
English (5) (Special Eng	g.): 3	Agriculture	2

\*Course repeated; half of class takes this work first semester, `the other half the second semester.

- (a) One credit is given for Physical Training or Military Drill which are required throughout the course.
- (b) English (5) is a special course designed for students who are deficient in English in any of the advanced grades.
- (c) Students who desire to emphasize any of the vocational subjects, without forfeiting their regular diploma, may do so by substituting five (5) hours per week of the subject for music and writing in the junior year and (3) hours per week for agriculture and commercial law in the senior year.

### COURSE B

### FIVE-YEAR PROFESSIONAL FOREIGN LANGUAGE COURSE FOR GRAMMAR SCHOOL GRADUATES

#### FIRST YEAR

First	Semester	Hrs.	Second Semester	Hrs.
Latin	<b>tt</b>	5	Latin	Б
English	(Library)	5	English (Library)	5
<b>A</b> lgebra	***************************************	5	Algebra	5
Biology	***************************************	5	Biology	5
			Drawing	
			Man. Trg. or Home Ec.	

### SECOND YEAR

First Semester	Hrs.	Second Semester Hrs	3.
Latin or Spanish	5	Latin or Spanish	5
₱English (Library)	5	English (Library)	5
♣Aleebra or Agriculture	5	Arithmetic	5
Ancient History	<b>5</b>	Ancient History	5
Music	4	Music	4
	THIRD	YEAR	
Latin or Spanish	5	Latin or Spanish	5
English (Library)	5	English (Library)	5
Geometry	5	Geometry	5
Physics		Chemistry	5
●Modern History	5	U. S. History	5
or		or	
Drawing		Drawing 2 }	5
'Man. Trg. or Home Ec	3 ( 0	Man. Trg. or Home Ec 3	•
	JUNIOR	YEAR	
Latin or German or Span	ish 5 ·	Latin or German or Spanish	5
*English (Library)	Б	*English (Library)	5
Science of Government	5	Geography	5
Psychology	5	Pedagogy	5
Writing	2	Writing	2
Music	2	Music	γ
*Arithmetic	5	*Arithmetic	5
!	SENIOR	YEAR	
German or Spanish	5	German or Spanish	5
Ethics	5	History of Education	5
Methods	5	Methods	5
Teaching	5	Teaching	5
*Com. Law and Sch. Ec	5	Agriculture	
		*Com. Law and Sch. Ec.	5
*Course repeated; hai	f of clas	s takes this work first semeste	r,
the other half the second		· ·	

- (a) No credit is given in any language for less than two sofull years' work.
- (b) One credit is given for Physical Training or Maitary Drill when taken throughout the course.

### COURSE C

### A TWO-YEAR PROFESSIONAL COURSE FOR GRADUATES OF A FOUR-YEAR HIGH SCHOOL COURSE

### JUNIOR YEAR

First Semester	Hrs.	Second	Semester	Hrs.
Psychology		Pedagogy	r	Б
*Arithmetic	) _	*Arithmet	ic )	-
*Arithmetic *English Grammer	}	*English	ic Grammar }	D
Reading	5		***************************************	
Academic Elective	5	Geograph	ıy	5
Music	2	Drawing	*****	<b>2</b>
Drawing	2		******	
Writing	2	Writing	•	2
	SENIOR	YEAR		
Methods	5'	Methods		5

Teaching 5 Ethics 5

Agriculture ...... 2

Music 2

Drawing 2

\*Commercial Law ...... 1

\*School Law & School Ec...... 4

Teaching ..... 5

History of Education 5

Agriculture ..... 2

Music 2

Drawing 2

\*Commercial Law ...... 1

\*School Law & School Ec...... 4

\*Gourse repeated; half of class takes this work first semester, the other half the second semester.

- (a) One credit allowed for Physical Training or Military Drill when taken throughout the course.
- (b) A course in Language may be substituted for Reading and Spelling in the Junior year, and for Agriculture in the Senior year.
- (c) Students who desire to emphasize vocational subjects, without forfeiting the regular diploma, may do so by substituting five hours per week of the required subject for academic elective and spelling in the junior year, and three hours per week for agriculture and commercial law in the senior year.

### COURSE D

# A FOUR-YEAR ACADEMIC COURSE FOR GRADUATES OF GRAMMAR SCHOOLS

A four-year academic course, corresponding to the high school courses of the state, is offered to those students who do not desire to teach, but who wish to prepare for entrance to college or university, or to supplement their grammar school education by a non-professional course.

For the Academic Diploma a student must have completed 17 units or credits, at least half of which must be taken in this school. Twenty-one and one-half units of work are offered in this school, which are acceptable for the Academic Diploma. Of the seventeen units required thirteen and one-half units are compulsory and the other three and one-half units are elective and may be selected from the remainder of the twenty-one and one-half units, chosen from any of the groups named below.

### **GROUPS**

Units	Offered	Unit	s Requ	ired
2 1/2	History			2 💺
21/4	English	-4-		3
8	Mathematics:			
	Arithmetic Algebra Geometry	11/2		2
31/2	Science:			•
	Biology Physics and Chemistry Physiology Physiography and Geography	1 1/2	unit unit unit unit	2
5	Languages:  4 Latin (C	3	units units units	V
4	Vocational Subjects:    Drawing	4	unital unital unital unital	•
211/2	. Not, morethan3,		<b>.</b>	13%

# Special Vocational Courses

Six special courses are now offered which lead to graduation and to a special diploma entitling the holder to teach or supervise a special line of work in the public schools of the State.

- (a) School Art,
- (b) Industrial Arts,
- (c) Home Economics,
- (d) Kindergarten Training,
- (e) Agriculture,
- (f) Commerce.

Candidates for admission to any of the above courses must qualify under one of the following conditions:

- (1) Students pursuing the five-year Normal Course must have completed the 15 units required in the first three years of said course, including the unit of vocational work corresponding to the special line selected.
- (2) Graduates from a full four-year academic course must present recommendations for special training and ability along the line of the particular vocational course selected. These references must be signed by the instructor under whom the special work has been taken and by the principal of the high school or academy, and the candidate must file with the head of the department a description of the courses pursued, a statement of grades received, and, where practicable, samples of work done.
- (3) Candidates who are not graduates of any high school, but who have to their credit work equivalent to that required in Course A, pages 14-15, may be admitted to any of these courses under such conditions as the heads of the respective departments may require.

First Semester

### SPECIAL COURSE IN ART

# A COURSE IN SCHOOL ART FOR THE TRAINING OF DEPARTMENTAL TEACHERS AND SUPERVISORS

### JUNIOR YEAR

Hrs. Second Semester

Hrs

Tital Schicater 1118.	pecong pennesier ints.
Psychology 5	Pedagogy 5
Drawing & Painting (1) 5	Drawing & Painting (2) 4
Art History I 1	Art History (2) 1
Composition and Design (1) 5	Composition and Design (2) 5
Mechanical Drawing 4	Out Door Sketching (1) 2
Academic Elective 5	Art Crafts (1) 3
	Academic Elective 5
SENIOR	YEAR
SENIOR First Semester Hrs.	YEAR Second Semester Hrs.
·- ·- ·-	· ——— <del>—</del>
First Semester Hrs.	Second Semester Hrs.
First Semester Hrs.  Methods and Teaching	Second Semester Hrs.  Methods and Teaching
First Semester Hrs.  Methods and Teaching	Second Semester Hrs.  Methods and Teaching 5  Art History (4)
First Semester         Hrs.           Methods and Teaching         5           Art History (3)         1           Costume Design         1	Second Semester Hrs.  Methods and Teaching 5  Art History (4) 1  Interior Decoration 4
First Semester         Hrs.           Methods and Teaching         5           Art History (3)         1           Costume Design         1           Composition and Design (1)         5	Second Semester Hrs.  Methods and Teaching 5 Art History (4) 1 Interior Decoration 4 Illustration 3

### SPECIAL COURSE IN INDUSTRIAL ARTS

A COURSE IN INDUSTRIAL ARTS FOR THE TRAINING OF DEPART-MENTAL TEACHERS AND SUPERVISORS

### JUNIOR YEAR

First Semester	Hrs.	Second Semester	Hrs.
Psychology	5	Pedagogy	5
Academic Elective	5	Academic Elective	Б
Composition & Design	5	Pattern Making	5
Turning & Lathe Practi	ce 5	Case & Cabinet Con	4
Mechanical Drawing (2)	5	Mechanical Drawing (3)	3
		Mechanical Drawing (4)	3

### SENIOR YEAR

First Semester	Hrs.	Second Semester	Hrs.
Method and Teaching.	5	Method and Teaching	5
Academic Elective	5	History of Education	5
Art Crafts (2)	5	Interior Decoration	4
Forge Practice	4	Machine Shop Practice	5
Sheet Metal Work	2	Foundry Practice	1
Machine Design	4	Economics of Man. Train.	2
		Shop Courses & Practices.	3

### SPECIAL COURSE IN HOME ECONOMICS

A COURSE IN HOME ECONOMICS FOR THE TRAINING OF DEPART-MENTAL TEACHERS AND SUPERVISORS

#### JUNIOR YEAR

First Semester	Hrs.	Second Semester	Hrs.
Psychology	5	Pedagogy	5
Composition and Design	5	Geography or Açad. Ele	ec 5
Bacteriology	5	Physiology	5
Household Physics	5	Household Chemistry	5
Home Economics (2)	5	Home Economics (12)	5

### SENIOR YEAR

First Semester	Hrs.	Second Semester	Hrs.
Method and Teaching	5	Method and Teaching	5
Ethics or Acad. Elec	5	History of Education	5
Home Economics (21)	5	Home Economics (22)	7
Home Economics (23)	5	Home Economics (24)	5
Home Economics (25)	5	Home Economics (26)	3
Costume Design	1		

### SPECIAL COURSE IN AGRICULTURE

A COURSE IN AGRICULTURE FOR THE TRAINING OF SPECIAL TEACHERS AND SUPERVISORS

### JUNIOR YEAR

First Semester	Hrs.	Second Semester	Hrs.
Psychology	5	Pedagogy	5
Academic Elective	5	Academic Elective	5
Bacteriology	Б	Physiology	5
Animal Husbandry	5	Animal Husbandry	5
Agricultural Chemistry	5	Agronomy	5

First Semester

### SENIOR YEAR

First Semester	Hrs.	Second Semester	Hrs.
Methods	5	Methods	5
Teaching	5	Teaching	5
Ethics	5	History of Education	5
Horticulture	5	Dairying	5
Rural Economics	3	Rural Economics	8
Agricultural Education	2	Agricultural Education	2

### SPECIAL COURSE IN KINDERGARTEN TRAINING

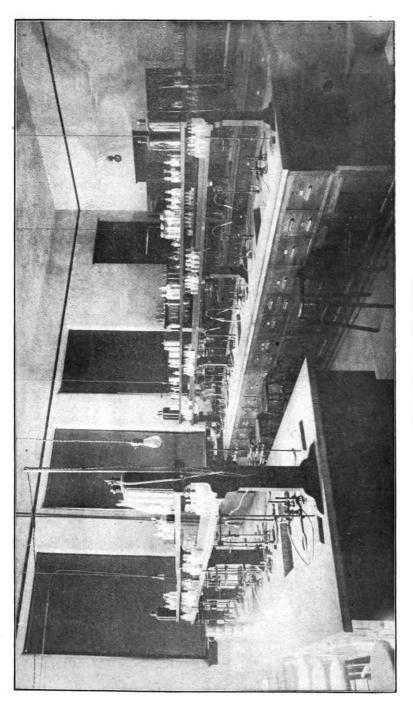
A COURSE FOR THE TRAINING OF KINDERGARTEN AND PRIMARY TEACHERS AND SUPERVISORS

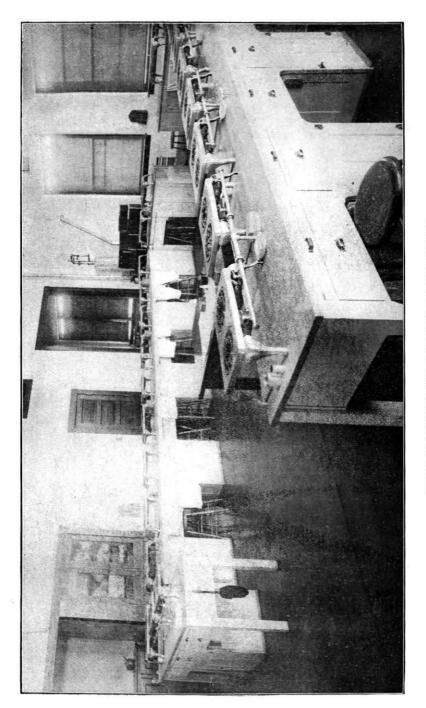
### JUNIOR YEAR

Hrs. Second Semester

Hrs.

Psychology 5	Pedagogy 5
Reading 5	Physiology5
English Grammar 5	Literature 2
Music2	Juvenile Literature 2
Drawing 2	Music2
Kindergarten Theory 2	Drawing2
Kindergarten Technics 5	Sociology 2
<b></b>	Kindergarten Theory and
. 26	Technics5
	25
SENIOR	YEAR
First Semester Hrs.	Second Semester Hrs.
Methods 5	Methods 5
Teaching5	Teaching
Ethics 5	History of Education 5
Extemporaneous Speak-)	Maternal Efficiency and
ing (2) 5	Child Hygiene (2)
Literature (2)	Nature Study (1)
Nature Study (1)	Music (2)
Kindergarten Theory and	Kindergarten Theory and
Technics 5	Technics 5
_	-
	****





VIEW OF DOMESTIC SCIENCE LABORATORY

### DEPARTMENT OF COMMERCE

The details of the course of study for this department are yet to be arranged. The qualifications for entrance are similar to those required for entrance to the other special vocational courses. In addition to the requirements in stenography, typewriting, commercial law, bookkeeping, business English and arithmetic, there will be included courses in general economics, labor problems, transportation, commercial geography, public finance, taxation, public utilities, tariff history, municipal accounting, auditing, money market, banking, government, business organization, salesmanship, advertising, and such other courses as will bring the department up to a first class school of commerce and business efficiency.

# Analysis of the Course of Study

Introduction: The primary aim of a Normal School is the training of teachers, and this is made prominent throughout all the courses except the academic course. In each department the teacher not only teaches his class, but he discusses with the students the method of presentation and requires them to note his plan of work in all parts of the subject. Thus the teaching idea is made dominant in the minds of all Normal students from the beginning of the course by making every subject a study in method all the time. The relation between the professional and academic work is maintained during the Senior Year by the student teachers consulting frequently with the members of the Normal faculty who have charge of the subject which they are teaching in the Training School. The members of the Normal School faculty are also expected to prepare outlines of work for special lessons, and lectures pertaining to the methods of teaching their special subjects and to present the same to the Senior Class.

### **AGRICULTURE**

#### MR. GRIFFING

Agriculture is presented primarily from the educational standpoint. Not only are lines of work given to prepare every prospective teacher for teaching nature study and agriculture in the elementary schools, but special courses are offered to those who desire additional preparation in this line, and a twoyear course prepares students for the work of special teachers of agriculture.

For the indoor work there is an adequate laboratory equipment both for demonstration of fundamental principles by the instructor and for experiment by the pupil. Elaborate sets of slides for the stereopticon, and photographs or prints for the balopticon, make it possible for nearly every phase of agricultural work to be presented by illustration.

For outside work, which the climate permits during every month of the school year, fifty acres of land are available. This is used for school gardens, demonstration and experiment with various crops and to the production of livestock and their products. The dairy, hog-lot, and poultry yard, not only supply fresh milk, meat, and eggs to the dining hall, but furnish an opportunity for first-hand study of the best possible types of farm animals. The dairy herd is made up largely of Holstein-Frisian individuals of advanced registry stock selected for perfection of type, and headed by "Sir Korndyke Johanna Phoenix," the grand champion at the Arizona State Fair in 1915. In the hog-lot the Duroc-Jersey breed of swine is represented by a number of individuals of outstanding merit and headed by "Tempe Chief," a son of the famous "Select Chief," the Grand Champion of the Missouri Valley.

AGRICULTURE I. ELEMENTARY AGRICULTURE. This course is designed to give a general survey of all phases of agriculture for the benefit of those who cannot make a more detailed study of the subject, and to furnish a foundation for the work of the teacher. Emphasis will be placed on fundamental principles as applied to local conditions. Some of the topics taken up will be as follows: Origin and kinds of soils, movements of soil moisture, the plant in its relation to the soil, tillage and cultivation, irrigation, drainage, water conservation, soil improvement, field crops, gardening, horticulture, farm stock, dairying and poultry. Each member of the class is required to make a garden and to take part in such activities about the field or campus as may have a special bearing upon the subject.

Text-books: Waters', The Essentials of Agriculture, The MacMillan Co.; Bulletins from the U. S. Department of Agriculture, and the State Experiment Station.

AGRICULTURE 2. ANIMAL HUSBANDRY. A study of breeds of stock, stock judging, diseases of farm animals, animal

improvement, composition of feeds, and the care and feeding of animals.

Text-book: Harper's Animal Husbandry, The Mac-Millan Co.

Five times a week throughout the Junior year.

AGRICULTURE 3. AGRICULTURAL CHEMISTRY. This course is based upon previous work in chemistry and consists of the practical application of chemistry to the various phases of agricultural work. The composition of plant and animal bodies; the reactions in plant and animal life processes; the composition of feeds and their relation to the needs of the animal body; the chemistry of soils, of fertilizers and of alkalies; and the chemistry of dairying are some of the subjects taken up.

Literature: Snyder, Chemistry of Plant and Animal Life, Orange Judd Co.; Henry, Feeds and Feeding, published by author, Madison, Wis. Bulletins from U. S. and State.

Junior year, first semester, five times a week.

AGRICULTURE 4. AGRONOMY. In this course an intensive study is made of soils in both the field and laboratory. Fertilizers, crop rotations, irrigation, drainage, and dry farming are taken up in detail. In the last part of the course each one of the field crops is studied in turn with special emphasis upon crops grown in Arizona. Plant diseases are given careful consideration.

Literature: Burkett, Soils, Orange Judd Co.; Wilson and Warburton, Field Crops; current literature; bulletins from the State and U. S.

Junior year, second semester, five times a week.

ACRICULTURE 5. DAIRYING. Dairying will be taken up largely from the standpoint of milk production in the farm dairy. Types of dairy cattle, herd improvement through selection and grading, herd testing, testing for advanced register, dairy bacteriology, use of dairy equipment, and dairy sanitation are some of the subjects considered.

Text-book: Wing's Milk and Its Products, The Mac-Millan Co.

Senior year, second semester, five times a week.

AGRICULTURE 6. HORTICULTURE. Two lines of work are taken up in this course, vegetable growing and the study of the production of fruits. The truck crops best adapted to

Arizona climates are studied carefully in their relation to school gardening. Fruits adapted to this climate are given special attention, and actual practice is given in grafting, budding, setting young trees, pruning and spraying.

Literature: Wickson, California Fruits and How to Grow Them, Pacific Rural Press, San Francisco; and California Vegetables, by the same author. Bulletins and current magazines.

Senior year, first semester, five times a week.

AGRICULTURE 7. AGRICULTURAL EDUCATION. This course presents methods of teaching elementary agriculture. During the first part of the year, a review will be made of the fundamental principles of elementary agriculture similar to the work outlined in Agriculture 1. This work will be supplemented with actual practice in making school gardens. Attention will be given to the performance of simple laboratory exercises that can be performed in any school room. The management of school gardens, the direction of field trips and observations, the collection of specimens of local weeds, insects, plant diseases and other material for use in the school room will be taken up. Special attention will be given to the study of recent movements in agricultural education, community work, the organization of boys' and girls' clubs and the specific agricultural problems of Arizona. The work in the class room will be supplemented by actual practice in teaching the grades of the training school.

Literature: Parson, School Gardens, Sturgis & Walton; Hemenway, How to Make a School Garden, Doubleday, Page & Co.; Warren, Elements of Agriculture, MacMillan Co.; Hilgard & Osterhout, Agriculture for Schools on the Pacific Slope, MacMillan Co.; Davis, Rural School Agriculture, Orange Judd Co.; Bulletins and current literature.

Required for all Seniors in the professional course, twice a week throughout the year.

AGRICULTURE 8. RURAL ECONOMICS. The social and economic problems of rural life, a history of recent movements for the betterment of rural conditions, community co-operation and activity, and the relation of the rural school to community problems are some of the subjects taken up.

Text-book: Gillette's Constructive Rural Sociology, Sturges & Walton Co.

Senior year, three times a week, throughout the year.

# ART DEPARTMENT

MR. ANDERSON: MISS AVAKIAN

The aim here is two-fold: First, to develop in the student the power to know and the ability to express, in the several media, facts of form; to familiarize him with the science and art of color in producing relations of harmony; to train in the appreciation of good composition and design so that art and industry may be brought into close relationship. Second, to qualify graduates to act as teachers or supervisors of drawing and of art education.

This department is liberally supplied with all the material and apparatus necessary for the class room, such as drawing and modeling stands, easels, color wheels, charts, lockers, still-life models, drawing papers, casts, potter's wheels, kilns, books of reference etc. Aside from two large drawing rooms, we have one for clay modeling and one for firing, glazing and casting. The exercises in clay modeling include work from plant and animal life, the making of tiles and pottery, modeling from cast, illustrative topics from the human figure, the production of designs for useful objects, use of potter's wheel, glazing of pottery, care and use of kiln.

DRAWING I: This embraces brush practice, elementary perspective, type-forms and objects based upon these, nature drawing in pencil, colored crayons, charcoal and water colors, blackboard practice, elements of design with application in problems for construction, plant and animal motives in designs, the making of scales in the study of color values, practice in the laying of flat washes, elements of mechanical drawing, memory drawing, exercises in clay modeling, lettering, Egyptian art.

First year, four times a week.

Drawing 2: Work of this course includes study in light and shade, pen-and-ink drawing, charcoal from cast, pose drawing for poster effects, illustration, wash drawing, perspective, pencil technique, out-door sketching, mechanical drawing to give knowledge of conventions and methods of drafting, applied design, adapting subject-matter to different shapes in the problems of decoration, lettering, clay modeling, Greek art.

Third year, two times a week, prerequisite, Drawing 1.

FOR HIGH SCHOOL GRADUATES—DRAWING I: The topics in drawing for this course will be selected from those of the first and third years and the work adapted to the needs and ability of the class.

Junior year, two times a week.

Drawing 2: This work will include brush practice, pencil and crayon study, exercises in water colors, freehand perspective composition, applied design, illustrative drawing-blackboard practice, study of pictures and masterpieces of art, lettering, clay modeling, method and practice in the teaching of drawing and the making of outlines of work for the first eight grades.

Senior year, two times a week.

## SPECIAL COURSE IN ART

# A COURSE IN ART FOR DEPARTMENTAL TEACHERS, COVERING JUNIOR AND SENIOR YEARS

Fifteen hours in each of these years will be devoted to departmental, and ten hours to academic and professional work. See outline for the entire course.

Drawing and Painting 1: Junior year, first semester, five hours. This will include drawing and painting from still-life, plant, and landscape in pencil, charcoal, brush and ink, crayon and water colors, memory drawing, composition, pose drawing for poster effects.

Drawing and Painting 2: Junior year, second semester, five hours. Continuation of Course 1. Study from still-life and cast in charcoal and wash, painting of plant, landscape and figure in water color, practice in work adapted to the grades, blackboard drawing.

Drawing and Painting 3: Senior year, first semester, four hours. Critical study of drawings and paintings by noted artists, study of color harmony from Japanese prints, drawing from life and cast in charcoal and wash, painting in water colors, illustrative drawing and painting from thoughts furnished by the training school.

DRAWING AND PAINTING 4: Senior year, second semester, five hours. Continuation of Course 3. Groups, interiors, land-

scape and figure composition in charcoal, pencil, crayon, water colors and oils, outdoor work.

ART HISTORY I: Junior year, first semester, one hour. Study of masterpieces of architecture, sculpture, painting and crafts irrespective of country or period for the formation of correct standards of criticism and appreciation.

ART HISTORY 2: Junior year, second semester, one hour. Historical development of the "space arts" as influenced by race, climate, natural resources, religion, and thought of various countries and periods, primitive, Egyptian, Assyrian, Greek and Roman Art.

ART HISTORY 3: Senior year, first semester, one hour. Early Christian and mediæval art in Europe and Asia.

ART HISTORY 4: Senior year, second semester, one hour. Modern art and its tendencies.

Composition and Design 1: Junior year, first semester, five hours. Principles of design developed through creative exercises aiming for fine arrangements in line, notan, and color, using plant, animal, and abstract motifs. Study of color theory and its bearing upon color harmony.

COMPOSITION AND DESIGN 2: Junior year, second semester, five hours. Work correlated with Art Crafts 1, design applied to textiles, relation of design to material—its limitations and possibilities.

Composition and Design 3: Senior year, first semester, five hours. Continuation of Course 2. Advanced problems in design and working designs for Art Crafts 2.

MECHANICAL DRAWING: Junior Year, first semester, four hours. See Courses 3 and 4 under Manual Training.

OUTDOOR SKETCHING I: Junior year, second semester, two hours. Study of values, massing light and dark, composition, study of technique from masterpieces, sketching in charcoal, pencil, colored crayon.

OUTDOOR SKETCHING 2: Senior year, second semester, two hours. Time sketching, landscape and figure in water colors and oils.

ART CRAFTS I. Junior year, second semester, three hours. Stenciling and wood-block printing; elementary bookbinding,

including the making of portfolios, blotter pads, laced and sewed books, cardboard construction; study of the adaptation of design to the material.

ART CRAFTS 2: Senior year, first semester, five hours. Clay modeling and pottery, including glazing and firing; art work in copper and brass; leather modeling, to include tooling, coloring and constructive problems.

INTERIOR DECORATION: Senior year, second semester, four hours. Application of the principles of design and color to the home; problems in architectural detail, house decoration, furniture, carpets and interior plans; study of all the elements that go to make for better home surroundings.

COSTUME DESIGN: Senior year, first semester, one hour. Study of costume as a phase of design. The lines and proportions of the human figure studied with a view to the intelligent application of principles. Special emphasis placed upon the solution of problems dealing with individual needs in line and color.

ILLUSTRATION: Senior year, second semester, three hours. Illustrations as book decorations harmonizing in treatment with the printed page and subject-matter. The combination of pictorial interest with decorative elements. Reproductions from work of noted illustrators. Original illustrations made for passages from literature. Mediums used: charcoal, crayon, pen and ink, and water colors.

In order to secure a recommendation in drawing, special work in this subject may be elected in the Junior and Senior years.

## COURSES A AND C

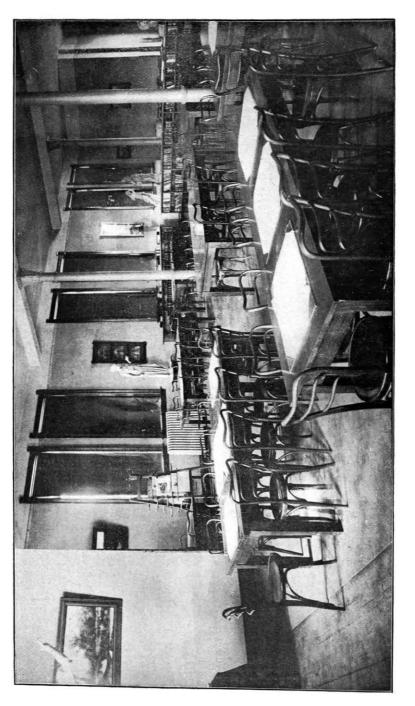
The work of this course will consist of a more intensive study of the subject together with methods of presentation to enable the student to take charge of drawing in addition to the regular grade teaching.

## COURSE A

Drawing may be substituted for music and writing in the Junior year and agriculture in the Senior year.

## COURSE C

Drawing may be substituted for spelling and reading in the Junior year and for agriculture in the Senior year.



VIEW OF MANUAL TRAINING SHOP

# **BIOLOGY**

## MR. BECKWITH

The department of Biology occupies the second floor of the Science Building. It consists of a museum, a lecture and recitation room, a large laboratory for Zoology and Botany, a laboratory for Bacteriology and a darkroom for photography.

The equipment is modern and up-to-date. During the past two years a large amount of apparatus has been placed in the laboratories and the department is now in a position to conduct courses that are not hampered by the want of necessary equipment or apparatus.

The purpose of the work conducted in this department is to give thorough instruction in a limited number of courses, suited to the needs of elementary students in science. No attempt is made to cover advanced college work.

General Biology: First year; three recitations and four laboratory periods per week; required of all students not presenting entrance credits in Biology. Textbook: Hunter, A Civic Biology, American Book Co., \$1.25.

This course, which is the first science taught in the Tempe Normal School, endeavors to teach students to solve problems and to think logically in so doing. It is, therefore, intended as a basis on which to build more advanced courses in science.

The subject matter is equally distributed between the plant and animal kingdoms. Some of the fundamental principles of biology are emphasized and an effort made to apply them to the life of the individual. Experimental demonstrations by the instructor and laboratory work by students make the work interesting and concrete.

BACTERIOLOGY: Junior year, first semester. Required of all students taking professional work in Domestic Science or Agriculture. Laboratory work and recitations amounting to five hours each week.

This course endeavors to furnish students with practical information concerning bacteria, yeasts, and molds. Instruction will be given in the structure, growth and culture of microorganisms. Each student will learn to use the high powers of the microscope and will be given opportunity to prepare per-

manent amounts of certain non-pathogenic bacteria, yeasts, and molds.

Such questions as sterilization, preservation of foods, fermentation, chemical synthesis brought about by microorganisms and micro-organisms in their relation to health will be emphasized.

Textbooks: Buchanan and Buchanan, Household Bacteriology, Macmillan Co., \$2.25; V. A. Moore, Laboratory Directions for Beginners in Bacteriology, Ginn & Co., \$1.00.

Physiology: The general idea of life processes which the student has acquired in the course in biology are better worked out in detail in their application to human physiology. The subject of anatomy is made subordinate to a clear understanding of physiology and hygiene. The entire course is illustrated by class demonstrations. The health and efficiency of the human body are being more and more esteemed and the point of view that regards the human body as a living mechanism is not only the foundation of physiology, hygiene and sanitation, but particularly concerns intellectual and moral behavior. Therefore we bring into greater prominence the right conduct of physical life, hygiene, and sanitation, and reduce anatomy to its lowest terms. Experimental work is done in the physiological laboratory throughout the course, and an especial effort is made to bring out the importance of sanitary living. Diet, exercise, bacteria, parasites, and other factors of health are given an ample place in the course. Each student is required to prepare and present to the class a report on some of the more common diseases, including their cause, symptoms, methods of treatment, and relation to the life of the community. The course as given not only gives to each student some valuable information which all of us should possess but also affords prospective teachers a practical knowledge of physiology sufficient for the needs of the public school teacher of physiology and hygiene.

Textbook: Hough and Sedgwick, The Human Mechanism, price \$2.25, Ginn & Co.

The course continues through the second semester. Junior year. Credit, 5 hours.

## COMMERCIAL LAW

COMMERCIAL LAW: The aim in this subject is to acquaint the student with the laws governing the common transactions of business life so he may be able readily to use these facts in a practical manner. Aside from this view of the subject, the reasoning faculties are brought sharply into operation. In the several topics, good opportunity is offered for logical thought in discussion and for precise expression in the framing of definitions. After each topic comes the review, which includes the citation of different cases with the decisions of the several judges in these cases, and this is followed by practical problems. The principal topics presented are: contracts, sales of personal property, negotiable instruments, bailments, agency, partnership, corporations, insurance, credit and loans, real property, pleading and practice.

Senior year, one semester, once a week.

Textbook: D. C. Gano, Commercial Law, American Book Company.

# EARTH SCIENCE

## MR. HIATT

Physiography: The relation of the earth to the other bodies in space is briefly discussed, particularly with reference to the change of seasons and its climatic effect. This is followed by a discussion of the plan of the earth and its broad general features in their relation to world economy. This leads to the study of the physiographic processes supplemented by special studies of selected typical regions through the medium of the government topographic maps, of which the school keeps a large and well assorted stock. Field trips are employed for the study of local features and for the better illustration of processes. In connection with the study of climate the students are taught to make and record daily observations of the chief elements of the weather. For this purpose the laboratory is equipped with a full set of standard thermometers, barometers, wind vane, and anemometer. Phoenix weather map is received daily and is used in connection with this work. The equipment includes a representative collection of rocks and minerals and the necessary wall maps, charts, relief maps, sand table, thermograph, barograph, and a large and growing collection of lantern slides illustrating topographic forms. Junior year, first semester, five times a week. Textbook: Dryer's High School Geography.

GEOGRAPHY: This course forms a continuation of the first semester's work in physiography. The relations of the earth to man are brought out in brief treatment of economic geography. This is followed by a course in regional geography in which the division of the earth into natural provinces is emphasized in order that the student may have a broad comprehension of the earth as a whole and thus obtain a clear understanding of the relation of one region to another. Type regions are studied in detail, the students learning to present the various facts of geography by the construction of maps, curves. diagrams and other forms of graphic expression. Notebook work is required, and each member of the class is required to write a thesis of some extent upon some topic which requires the application of the principles studied. This course affords an opportunity for a general review of the subject preparatory to teaching. For this reason the student's attention is constantly directed toward methods of presentation, and devices for illustration are discussed. Junior year, second semester, five times a week. Textbook: Dryer's High School Geography.

# **ENGLISH**

# MR. FELTON; MISS PILCHER

Instruction in English aims to secure a knowledge of correct forms of expression, an appreciation of good literature, and ease and facility in expressing thought in oral and written forms. To accomplish these ends courses are given in word analysis, grammar and analysis, rhetoric, composition, theme writing, reading and literature. The work done in these courses is based on the requirements for college and university entrance as outlined by the American Board of College Entrance.

ENGLISH 2. ENGLISH LITERATURE AND COMPOSITION—Second year, first and second semester. This course has three main purposes: first, to give a general view of the origin and growth of English literature; second, to develop in the student an appreciation of the best literature of the different periods by a thoughtful interpretation of selections from each,

and by collateral readings from which reports are made; third, to exercise the student in collecting, arranging and presenting material in the form of well written papers. Selections from Chaucer, Bacon, Shakespeare, Milton, Pope, Goldsmith, Burns, Carlyle and Tennyson are read and discussed in class. Instruction in the use of the library is given. Textbook: Painter's English Literature, Benj. H. Sanborn & Co., \$1.25.

English 3. American Literature—Third year. first and second semesters. Appreciation and enjoyment of the best that has been written by American authors, together with a thorough comprehension of the place of literature in the life and thought of the nation, is the aim of this course. The characters of the individual authors, particularly of the New England group, are studied. Collateral readings and instruction in the use of the library are required. Last year the following classics were read: Emerson, Selected Essays; Poe and Irving, Short Stories. Besides these general studies, the individual students select novels by the best of American fiction writers, read them carefully, and make oral and written reports upon them in class. Composition, based upon phases of literary development, and upon the classics read, is required throughout the year. Textbooks: Howe's American Literature, D. C. Heath & Co.: The Chief American Poets, Houghton, Mifflin & Co., \$1.75.

ENGLISH. GRAMMAR AND METHODS—One semester, Junior year. First or second semester. This course aims at the complete mastery of English sentence structure, and the essentials of English etymology. Drills in parsing and analysis are required. The variant terminology of English grammars in common use is compared and tabulated, and methods of teaching the subject in a plain, logical manner are presented. Each student uses a selected text and a general comparison of authorities is made.

ENGLISH 1. RHETORIC AND COMPOSITION—First year. The aim of this course is to give the students power to write simple and clear, correct, forcible English. Theme writing is required from the first. In order that a suitable freedom of expression may be developed most of the themes are based upon personal experience and observation. High standards in clearness, correctness and force are rigidly required. Some attention is devoted to the technical side of rhetoric. Exercises for the improvement of dictation, unity and coherence, together with the principles governing their application, are

supplemented with the regular theme requirements. Narration, with special observation of plot and orderly sequence, is studied. Description, exposition and very simple argumentative discourse follow the study of narrative. All papers are discussed and corrected in class or by individual consultation with the instructor. Selections from our best modern prose writers are studied as models for the study of imagery, plot and character delineation.

Wooley's Hand Book of Composition, D. C. Heath & Co., 70 cents; Clippinger's English Composition, Silver Burdette & Co., \$1.00, are used as textbooks.

Spelling and Word Analysis: As words are of no use to us any further than they are understood, the study of spelling and word analysis is a preparation for work in every subiect. The purpose of the course is two-fold: to teach written spelling and to enlarge the student's vocabulary. Words selected for study in this course will come from two courses: words misspelled in the themes written by the class in their rhetoric and composition, and words which are to be studied with regard to their analysis and use. As a preparation for this work phonetics, interpretation and diacritical marks as used in Webster's Dictionary and syllabification will be studied. The words chosen for analysis will be those that are, or ought to be, in the student's vocabulary. By frequent contests and by dictated exercises in which the commonly misspelled words will often occur, the correct spelling of these words will be fixed in the memory not only as isolated words but as they occur in sentences. Required of first year students.

The work in advanced word analysis and composition demands five hours a week during the last semester of the Junior year. The subject is also required of students who enter the Normal School as graduates of a high school, and is considered a part of the professional course. In the Junior year the work is discussed before the class in order to give practical illustrations of the methods of teaching spelling and word analysis in the public school. Textbooks: Webster's Academic Dictionary, American Book Company, \$1.50.

## **GERMAN**

#### MISS SALMANS

The course in German is provided to fill the needs of those students who wish to pursue more advanced work after leaving the normal. Two years of German are accepted as two units by the leading universities of the United States. The two-year course is elective in the Junior and Senior years.

ELEMENTARY GERMAN—Essentials of grammar, reading and conversation. Conducted as far as possible in German. The syntax and idioms are acquired by repeated exercises and dictation. Textbooks: Allen and Phillipson, A First German Grammar, Ginn & Co.; Hempl, Easiest German, Ginn & Co.; Zschokke, Der Zerbrochene Krug, American Book Co.; and a simple play by Benedix or other equally easy author.

Advanced German—Constant review of grammar, composition, and sight reading. Much stress is laid on the correct use of the idioms. German is the language of the class. Textbooks: Ball, German Drill Book, D. C. Heath & Co.; Storm, Immensee, Scott, Foresman Co.; Allen, First German Composition, H. Holt & Co.; Hillern, Hoeher als die Kirche, Chas. Merrill Co.; and a standard drama.

# HISTORY AND CIVICS

#### MR. MURDOCK

The work, as outlined in the courses below, is of high school rank, but since many who are enrolled in these classes are of more mature years, an effort is made to fit the subject matter to the average ability of the students. Those more advanced students who enter classes in this department are encouraged to "break new ground" by going deeper into the subject, through the use of college references. The library is well equipped for all the sources, especially for the study of the history and government of the United States. Many periodicals relative to this department are on file in the magazine section. Considerable reference reading is required in each course. History is correlated with literature by carefully selected readings from the classics, both poetry and prose. The far reaching effects of environment upon man and his institutions is made clear through map work and the study of

geographic conditions. Great stress is laid upon the economic phase of history, as it largely determines the political and military phases, and is, therefore, greater than either. In these brief courses history is not studied so much as an end, but as a means. An attempt is made to train the student to discriminate—to select the important from the less important, and thus to be able to comprehend the significance of periods and movements. All of this is with a view of enabling a student through his knowledge of history to understand present conditions. "Without a knowledge of history one cannot read the modern newspaper or magazine intelligently." Students who do the work of this department are able, among other things, to clearly comprehend and intelligently discuss the great issues of the day.

COURSE I—ANCIENT HISTORY: Second year. Text: Outlines of European History, Part I, Robinson and Breasted (Ginn, \$1.50). Supplementary reading: Divis's Greece and Rome, and others.

COURSE 2—MODERN HISTORY: Third year. First semester. Text: Outlines of European History, Part II, Robinson and Beard (Ginn \$1.50). Supplementary reading: Green's A Short History of England, Andrew's and Myer's texts.

COURSE 3—AMERICAN HISTORY: Third year. Second semester. Text: American History, Muzzey (Ginn, \$1.50). Supplementary reading: Epoch Series, Elson's and American Statesmen Series.

COURSE 4—Science of Government: Junior year. First semester. Text: Government and Politics in the United States, Guitteau (Houghton Mifflin, \$1.00). Supplementary reading: Bryce's and Beard's works on government and readings from Beard, Kaye and Reinsch.

# HOME ECONOMICS

## MISS FRANCIS; MISS STEWART

The aim of the department of Home Economics is to give training in subjects which pertain to the "economic, sanitary and aesthetic aspects of food, clothing and shelter, as connected with their selection, preparation and use by the family in the home or by other groups of people."

There are three courses offered in home economics, one required of students in the first and third years, another a specializing course for training teachers in those branches of home economics usually taught in grammar schools. A special diploma is granted upon the satisfactory completion of this course. A third course is open to those not wishing to sacrifice the regular diploma for the home economics diploma but who wish more work in that field than it is possible for all students to take. A special recommendation will be granted to students who satisfactorily complete this course.

## COURSE I

HOME ECONOMICS I—CLOTHING AND SHELTER: First year. Three periods. Text: Kinne & Cooley, Shelter and Clothing, Macmillan, \$1.10; Family Expense Accounts, T. A. Brookman, D. C. Heath & Co., 60 cents.

A. Prerequisite—Clothing as given in the sixth, seventh and eighth grammar grades, or its equivalent.

Textiles—A brief course in textiles is given during the first quarter of the year, to give the students a knowledge of the major textile fibers and materials as all intelligent purchasers of textile materials should possess.

Clothing—Students purchase their own materials and are given work in the adjustment and use of commercial patterns, drafting patterns to their own measures, the fitting and making of garments, chiefly by machine. Where possible, work in ornamental stitches is given, and one hand made article, such as a bag or table runner, is made and a suitable design worked out in cross stitch or other embroidery.

Shelter—A few lessons at the end of the year are given to the study of the house, touching chiefly upon sanitation, furnishing and care.

Money Values, Accounts, Budgets—A brief course once a week is given with the hope that the students will realize the value of money, the percentage of various incomes that should be spent for food, clothing, shelter, etc., and the advisability of keeping accounts and forecasting budgets.

B. For those who have had no previous work in school. The course is changed to meet the needs of the students but in general is as follows:

Textiles—The same as A.

Clothing—Work in garment making, similar to A, but less difficult, and with more hand sewing provided; also repair work.

Shelter—When time permits, the work will be given as to the A Class.

Money Values, Accounts, Budgets-The same as A.

Home Economics 2—Food: Third year. Three periods. Text: Kinne & Cooley, Foods and Household Management, Macmillan, \$1.10.

A. Prerequisite. Food as studied in the seventh and eighth grammar grades.

Foods—Laboratory experiments with the food stuffs giving the students a working knowledge of the principles of food cookery, followed by cooking several foods of each class. Source, composition and cost of foods, digestion and assimilation, dietaries, marketing, serving meals, laundry work and household management.

B. For those who have had no previous work in school. The work is similar to that in A, the chief difference being in the larger number of foods cooked and in the selection of those foods.

## COURSE !!

A course in home economics for the training of teachers. See page 21 for the outline of the entire course, and admission requirements.

Prerequisite. Home economics 1 and 2, chemistry, physics and general subjects for entrance to the Junior year.

Home Economics II: Junior year, first semester, five hours.

Textiles-First quarter.

History, development, source, production, commerce, manufacturing, uses, examination and identification of textile fibers and materials. Adulterations, hygiene and selection of materials, an introduction to textile chemistry, economic and sociological aspects of the textile industry.

Text: Woolman & McGowan, Textiles, Macmillan, \$2.00, supplemented by a well selected list of reference works.

Clothing—Second quarter. The making of all hand stitches and machine work with the use of attachments; both, applied to the construction of wearing apparel and other useful articles. Sewing methods and courses of study.

Home Economics 12: Junior year, second semester, five hours.

Foods—Principles of food cookery through laboratory experiments with the foodstuffs, followed by detailed work in the preparation of foods. Methods in teaching foods and courses of study. Text: Forster & Weigley, Foods and Sanitation, Row, Peterson & Co., \$1.40.

HOME ECONOMICS 21: Senior year, first semester, five hours.

Foods—Prerequisite, Home Economics 12. Source, production, preservation, composition, nutritive value, digestion, selection, cost, preparation and serving. Text: Sherman, Chemistry of Food and Nutrition, Macmillan, \$1.50.

Home Economics 23: Senior year, first semester, five hours.

Clothing—Prerequisite, Home Economics 11. Drafting, making and adjusting of simple patterns. Fitting in paper cambric. The making of one tailored shirt waist suit. Text: Kinne & Cooley, Shelter and Clothing, Macmillan, \$1.10.

Home Economics 25: Senior year, first semester, five hours.

Shelter and Household Management—The house; situation, construction, plumbing, wastes, heating, lighting, ventilating, furnishing and care. Economics of the household. Laundry work. Emergencies.

Home Economics 22: Senior year, second semester, seven hours.

Food and Dietetics—Prerequisite, Home Economics 21. Continuation of Home Economics 21. Marketing, planning, preparing and serving meals. Nutrition. The relation of food to the income. Diet in infancy and disease. Special problems.

HOME ECONOMICS 24: Senior year, second semester, five hours.

Prerequisite—Home Economics 23.

Clothing—The application of color and design to clothing and house furnishings. Special problems. The making of a dress for graduation. Additional problems in hand and machine work and use of attachments.

HOME ECONOMICS 26: Senior year, second semester, three hours.

School Administration—The relation of the special teacher to the school. School equipments, supplies, etc. Visiting schools and other field work.

Note—For detailed description of courses in bacteriology, household physics and chemistry, see the Science Department, pp. 31 and 56. For composition and design, and costume design, see the Art Department, pp. 29-30.

The work in methods will be given by the Home Economics Department with the exception of methods in drawing, which will be taken with the general method class. Each student will be required to teach grammar grade classes in foods and clothing.

Each student registered for courses in foods must wear as a uniform simple wash dress, white apron, white cap, holder and hand towel.

Students registered for Home Economics Course II are required to wear sensible, comfortable shoes with rubber heels of medium height. The uniform for laboratory work consists of a semi-tailored shirt waist suit of unfigured white material, and other articles above mentioned. Directions concerning the uniform and other required things should be obtained from the home economics office immediately after registration.

Lockers are provided; the deposit of 50 cents is refunded upon the return of the key.

#### COURSE III

Open to Junior students who wish to secure the regular Normal diploma and a Special Recommendation in home economics.

Prerequisite. Home Economics 1 and 2 or similar work,

chemistry, and general subjects for entrance to the Junior year.

Home Economics 31: Junior year, first semester, five hours.

Textiles and Clothing—Similar to Course II. Text: Woolman & McGowan, Textiles, Macmillan, \$2.00.

Home Economics 32: Junior year, second semester, five hours.

Foods—Similar to Course 12. Text: Forster & Weigley, Foods and Sanitation, Row, Peterson & Co., \$1.40.

HOME ECONOMICS 41: Senior year, first semester, three hours. The emphasis in this course will be placed upon household management and nutrition.

HOME ECONOMICS 42: Senior year, second semester, three hours. Drafting of simple patterns, adjusting commercial patterns, fitting, making of garments and other useful articles, and teaching methods.

# LATIN

## MR. HALL

The course in Latin begins the first year and extends over the first four years of the Normal course. Each of the four classes recites five periods a week for forty weeks each year, making 200 hours. The department is well equipped with a full set of Kiepert's wall maps and illustrative photogravures. The school library contains all the latest and most authoritative works of reference on classical antiquities in general, including history, geography, Roman life, topography, art, archæology, and literature. The reading room receives all the principal journals and magazines devoted to the classics. In fine, the equipment of the Latin department is one of the best in the southwest.

The course in Latin provides for two classes of students: the Normal student proper, who is preparing to teach in the public school system, receives a broader training, becomes a better master of English, and does better work as a teacher; secondly, the academic student is better prepared to enter col-

lege having four units to his credit of sixteen generally required for admission to the universities of Arizona and California.

In conformity with the report of the Commission on College-Entrance Requirements in Latin appointed by the American Philological Association, the amount and range of the reading required in this course for the full four years' work in Latin shall not be less in amount than Cæsar, Gallic War I-IV; Cicero, Orations against Catiline, for the Manilian Law, and for Archias; Vergil, Aeneid I-IV. But in range this amount or its equivalent may be selected from the following authors and works: Cæsar, Gallic War and Civil War, and Nepos, Lives; Cicero, Orations, Letters and De Senectute and Sallust, Catiline and Jugurthine War; Vergil, Bucolics, Georgics, and Aeneid, and Ovid, Metamorphoses, Fasti and Tristia; Provided always that this selection shall include the following as Prescribed Reading: Cicero, for the Manilian Law and for Archias; Vergil Aeneid i-iii and either iv or vi.

The course is outlined as follows for 1916-1917:

INTRODUCTORY: Pronunciation, syllabification, and inflection with constant drills and reviews and involving oral and written practice in the simple rules of syntax, with reading and dictation to train the ear as well as the eye, accomplishes the aim of the first year—to prepare thoroughly for second year work by the complete mastery of the fundamentals in form and expression. Considerable English grammar is reviewed and developed.

CAESAR: Riess & Janes, Cæsar's Gallic War, American Book Co., is the only text used for the second year work. Three recitations a week throughout the year in Cæsar and two in grammar and composition cover this course. The courses of these two years count for two units in all accrediting colleges.

CICERO: Harkness, Kirkland and Williams, Cicero's Nine Orations, American Book Co. The orations against Catiline, the orations for Archias and for the Manilian Law; also, if time permits, either for Marcellus, for Ligarius, and the Fourteenth Phillipic, or Merivale, Sallust's Catiline, The Macmillan Co. The class recites in Cicero four times a week throughout the year.

VERGIL: Greenough and Kittredge, Aeneid, Ginn & Co., Book i-iv will be read in the Junior year. The class recites

in Vergil four times a week throughout the year. Subject matter, literary and historical allusions and prosody as well as ability to translate will be demanded in all authors read.

GRAMMAR AND COMPOSITION: Every student in the Cicero and Vergil classes must have the following books: Nutting, Advanced Latin Composition, Allyn & Bacon; Allen & Greenough, New Latin Grammar, Ginn & Co.; Brown, Latin Word List, Ginn & Co. A thorough knowledge of all regular inflections, all common irregular forms, and the ordinary syntax and vocabulary of the prose authors read in school, with ability to use this knowledge in writing simple Latin prose, will be rigidly required of each student upon the completion of the four years' work in Latin. Third year and Junior students recite once a week throughout the year upon this work.

New copies of all textbooks used in Latin will be demanded of each student and positively no second-hand copies will be allowed.

# MATHEMATICS

## MR. FRIZZELL; MR. SCHAEFFER

Mathematics should form an important part of the course of study in a Normal School, for the logical product of such school is teachers of children, teachers who are to go into village and country and train children to become useful and competent citizens.

Since all persons should have legitimate and lucrative occupation, and since the science of mathematics is fundamental in all business calculation and in constructive work, it is readily seen that a careful study of this science is necessary to an adequate training for the duties incident to life. In the Tempe Normal School the effort is made to train the student in the manner that will best fit him for work as teacher and at the same time give him a comprehensive and thorough knowledge of the subject.

The course is presented under three heads, namely: Arithmetic, Algebra and Geometry.

ARITHMETIC I: Arithmetic is presented the second semester of the second year and also the first semester of the Junior year.

In the second year the endeavor is made to make a thorough study of the subject. Exhaustive drills are given in the fundamental operations, in fractions, decimals, proportion, etc.

Textbook: Silver Burdette Arithmetic, Third Book, Silver Burdette Co., Chicago, Ill., list price 45 cents.

ARITHMETIC 2: During the Junior year exhaustive review and drill of arithmetical principles are given. The subject is presented from the teacher's standpoint and involves methods of presentation to children of the grammar grades. The subject is pursued for one semester and may be taken either semester of the school year.

Textbook: Stone-Millis, Secondary Arithmetic, Benj. H. Sanborn, Chicago, Ill., list price 60 cents.

ALCEBRA: The work in Algebra is given during the first year and the first half of the second year.

Algebra work is based on the work previously done by the student in the grammar school grades. Beginning with concrete examples and simple operations, students are led to develop and comprehend abstract and general truths.

Special attention is given to addition, subtraction, multiplication and division. Also a close study is made of fractions, the equation as a means for the solution of problems, simultaneous equations, proportion, quadratics, logarithms, etc. The subject is treated in a simple and careful manner so that a student who has mastered grammar school arithmetic can do the work in algebra in a satisfactory manner.

Textbook: Hawkes-Luby-Touton, Complete Algebra, Ginn & Co., Chicago, list price \$1.25.

GEOMETRY: Geometry is offered in the third year of the course. In this subject the student is led to make close examination of conditions as set forth in the proposition, that he may have a clear understanding of the hypothesis. This fastens upon him a habit of close observation and prepares him to view conditions in the proper light. The aim also is to give the student a thorough drill in reasoning processes and to develop the habit of demanding sufficient evidence before drawing conclusions.

Textbook: Wentworth-Smith Plane and Solid Geometry, Ginn & Co., Chicago, list price \$1.30.

VIEW OF MACHINE SHOP

# INDUSTRIAL ARTS

## MR. CLARK; MR. RYAN

The Industrial Arts department is housed in a well equipped building designed especially for these lines of work. The shops are well equipped for bench woodwork, joinery, millwork, cabinet construction, wood turning, pattern making, forging, foundry, flat metal and machine shop work.

Some changes in the method of handling these branches have been made necessary in order to meet the demands of both regular normal students and those enrolling for the teachers' course in industrial arts. The courses are arranged to combine the various forms of mechanical drawing with the shopwork, thus developing in the student ability both to design and construct.

The courses offered aim: first, to encourage and stimulate self-reliance, invention, neatness, proportion, harmony and accuracy; second, to make competent independent workmen capable of designing, making or repairing in house or furniture construction; third, to teach estimation of values and effects; fourth, to instruct special teachers to prepare and plan courses of study and their presentation to the end that they may become competent to teach these subjects.

Two courses are offered, the Academic and the Professional, and work in manual training is given to the four upper grades of the training school. The Academic course for regular students is prescribed for the first and third years of the Normal. Problems are assigned which embody such principles of design and finish as are within the ability of the student, and all discussions are built upon the material, construction and finish of the respective problem.

## TRAINING SCHOOL COURSE

The training school pupils are taught through a series of problems the basic idea of which is the preparing of wood for use in construction. With the problems come talks on the best methods of handling the tools and material, and each student is carefully looked after to see that he acquires no incorrect habits of workmanship. It is not required that any pupil complete all the projects listed for a given year, nor will he be limited except by his manifest ability. Each student is fur-

nished a blue print of the work in hand and must be able to read and make the more simple drawings of this kind before completing the eighth grade.

Classification of problems by grades is as follows: Fifth grade, bread board, pen tray, key-rack, blotter-pad, tooth brush holder; sixth grade, towel roller, spool holder, foot stool, bookrack, hexagonal tray, cutting board or grocery list; seventh grade, wall pocket, candlestick holder, coat hanger, broom holder, book trough, hat rack, taboret, square stool; eighth grade, towel rack, taboret, plate rack, picture frame, square table, carved trays, lamp stand, chair. Each grade, thirty-six weeks. Two periods per week.

## **ACADEMIC COURSE**

MANUAL TRAINING I AND 2: This course will be pursued through the medium of woodworking. It allows considerable latitude as to specific articles but insists upon certain essentials of good construction being executed, such as haunched mortise and tenon, half lap, half lap mitre, dovetail, framing and paneling joints. The pupils make such problems as the following: Knife box, taboret, center table, library table, settee, Roman chair, lamp stand, hall tree, buffet, framing truss, and rafter cutting. The problems are made the foundation for discussion of woods; their growth as related to construction uses; the making and application of practical finishes and wood preservatives. While the theoretical and educational values are not lost sight of, the trade or practical side of the shopwork is kept largely in mind, that the young men who elect the work may be fitted in a great measure for positions in the trades. This side is made a feature because those pursuing this course will probably not become teachers. Some wish to fit themselves for the more skilled positions in the various industrial fields. Drawing will be emphasized and a special advanced drawing course offered. Text: King's Series. Two periods per week. First and third years.

#### PROFESSIONAL COURSE

Manual Training 3: Students electing this course pursue the academic work in the first and third years, and in the Junior year take work dealing largely with the theoretical and educational side of industrial arts. They will be given special

instruction and lectures on the scope and intent of industrial work as related to the public school, and thorough courses in both theoretical and applied mechanical drawing. In connection with the drawing work tracings and blue prints are made and those completing it will be adequately equipped to handle such drawing as is required in the High School Manual Arts. In each of the shop courses students make a series of projects which acquaint them with commercial practices and develop efficiency in the use of the respective tools.

Graduation in the professional course certifies students for positions in manual training or enables them to embody the courses in the general school work. The following will be offered: (Prerequisite, Manual Training 1 and 2, two periods a week, and Mechanical Drawing 1, two periods a week.)

WOOD SHOP IA: Turning will comprise study of lathe, lathe tools, jigs, woods for turning, action of wood fiber in turning, turning between centers, chucking, face plate turning, building up stock, etc. Drawing required. Junior year, first semester, five hours per week.

Wood Shop IB: Case and Cabinet construction, study of design, ornamentation, screens, finishes and values. Junior year, second semester, four hours per week.

MECHANICAL DRAWING 2: An elementary course involving freehand lettering, cabinet and isometric projection and starting orthographic projection. Junior year, first semester, four periods a week.

Pattern Shop 2A: Patternmaking. This will involve the study of cores, core prints, draft, vent, allowance for shrinkage and finish, building up stock, making core boxes, etc. This course is related to that of Foundry Practice in which the student makes castings from his various patterns. Junior year, second semester, five hours a week.

CRAFTSMAN WORK 2C: Clay modeling, textile work, basketry and cardboard work will be taken up in the relation it holds to the lower grades, and its purposes and values in the school courses. A number of finished projects will be required in each line. Junior year, second semester, three hours per week.

MECHANICAL DRAWING 3: This constitutes a continuation of Mechanical Drawing 2. It covers sections and intersections, but its chief aim is to develop ability along the line of practical drafting. Junior year, second semester, three periods a week.

MECHANICAL DRAWING 4: (Prerequisite, Mechanical Drawing 2.) A course in architectural drafting in which the students draw a complete set of original plans for a small building. Junior year, second semester, three periods a week.

ART CRAFTS 3c: This course will be an extension of Course 2C, with supplementary work in art metal, leather tooling and book binding. It is aimed to give balance to the course by developing the art side of industrial training. Senior year, first semester, five hours a week.

FORCE PRACTICE: This course covers the building and care of the fire, a study of the effect of temperature on steel and the more important factors of its heat treatment. The names of the tools are taught and their proper use emphasized.

The work is covered by recitation and by making projects having the following essentials:

Drawing and pointing, eye bending, forging corners, upsetting, twisting, forming shoulders, punching, welding, annealing, hardening and tempering. These are taught through a series of exercises advancing from a pointed eye bend to making machine shop tools. Senior year, first semester, four periods a week.

MACHINE DESIGN: (Prerequisite, Mechanical Drawing 2 and 3.) A course treating of the elements of machines and the motion of parts, the design of gears and cams and elementary design for strength. Senior year, first semester, four periods a week.

SHEET METAL WORK: (Prerequisite, Mechanical Drawing 3.) This work covers sheet metal forming, sheet metal joints, soldering, brazing and riveting. The manufacture of sheet metal and other interesting topics will be discussed in class and an effort made to acquaint those enrolled with commercial practice in this work. Senior year, first semester, one period a week.

MACHINE SHOP PRACTICE: (Prerequisite, Mechanical Drawing 2, one year's wood working and Forge Practice.) The work covers the ordinary processes of machine tools such as cutting gears, arbors, right and left hand threads, making twist drills and milling cutters. Throughout the course atten-

tion is paid to cutting speeds, and the usual shop calculations are taught.

Metal spinning is also taken up in the machine shop, the students learning to spin, from brass and aluminum, such articles as salt shakers, cups, saucers, candle sticks, etc. Senior year, second semester, five periods a week.

FOUNDRY PRACTICE: (Prerequisite, Pattern Making.) A course in foundry practice intended to give the student a general knowledge of moulding. The use of cores and risers, the proper way to vent, gate and ram moulds will be taught and talks given on cupola management. The students will be required to keep notes and at the conclusion of the work make an observation trip to a Phoenix foundry. Senior year, second semester, one period a week.

Shop Courses and Practices 4B: General review of the manual arts work with reference to actual shop practice, study of methods, courses, drawing, equipment, supplies, etc. Review of history and development of industries and manual training, industrial and vocational institutions. Much reference work will be assigned and thorough papers required upon topics allotted. Senior year, second semester three hours per week.

ECONOMICS OF MANUAL TRAINING 4C: This is a lecture series on shop equipment, cost and maintenance. Students are required to gather and compile data upon the subject. Senior year, second semester, two periods a week.

There is a growing demand for teachers qualified to take charge of Manual Training in the rural schools. For this reason students will be permitted to make certain substitutions in the Junior and Senior years of either Course A or Course C. This will allow them to take five hours Manual Training per week during their Junior year and three hours during their Senior year, and upon its satisfactory completion will entitle them to a special letter of recommendation as a teacher of Manual Training for rural districts.

# MILITARY DRILL

#### MR. IRISH

This work is intended to accomplish several important results. In the first place it is a valuable means of physical culture and training of the muscular sense. The exercise at-

tendant upon a lively drill in the open air is of a nature well calculated to overcome the effects of close application to study, to promote a healthy circulation and to prepare the mind for more vigorous effort. Again, daily attention, even for short periods, to correct position in standing and walking, gives a springy step, an erect carriage and a soldierly bearing that can scarcely be attained by any other means. Moreover, the strict discipline which is inseparable from properly conducted military work, is eminently conducive to the acquiring of orderly and systematic habits, personal neatness, prompt response to direction and self-control. At the same time the graduation of authority and division of responsibility from private to captain furnishes a valuable object lesson in government, while the actual knowledge gained makes the student a more valuable citizen, preparing him, as it does, the better to take upon himself the work of his country's defense in time of need. The objection which has sometimes been opposed to military drill because of its one-sided character is entirely met and overcome by the use of the setting-up exercises, the bayonet drill and the calisthenic exercises with and without the piece, while the attractive nature of the work gives to it that spontaneous character without which exercise is valueless.

The course, which is required of all made students who are free from physical disability, includes "the setting-up exercises" as prescribed for the United States Army, the school of the soldier, the school of the company, the bayonet exercise, calisthenic and bar-bell exercises, extended order work and battle formation for the company acting alone, the ceremonies of parade and guard mounting and the duties of sentinels. The principles of battalion movements are explained and outlined in order to illustrate the relation of the company to larger bodies of troops. Opportunity is given for instruction in military map reading and map maneuvers.

By an act of the First Legislative Assembly of the State of Arizona, the military organization of the Normal School of Arizona is made a part of the National Guard of this State, to be known as the Normal School Cadet Company. The military instructor holds the rank of captain and commissions are issued to the student officers of the company. Upon graduation from the institution, or being honorably dismissed therefrom, such officers may resign their commissions or hold the same as retired officers of the Cadets, liable to be called into service by the Commander-in-Chief in case of war, invasion, insurrection or rebellion.

Under this law, the requisite ammunition and accessories for a course in target practice will be furnished to the institution each year. The company target range is situated within a mile of the campus in a safe location, and much interest is taken in this important work, a large per cent of the young men annually qualifying as marksmen or sharp-shooters under the regulations prescribed for the National Guard.

The company has recently become affiliated with the National Rifle Association, and has been fully equipped with new Springfield rifles. A gallery range has been established in one of the buildings to permit practice leading to participation in national matches for school teams.

Three or four days are spent each year in camp, giving practical experience in camp routine, issue of rations, guard duty, signal practice and extended order work. The uniform, which is required to be worn at all drills, is of regulation olive drab, correct in style, serviceable and comfortable. Directions for ordering the uniform will be furnished to prospective students upon application to the president. Drills will occur three times per week during the year. None are excused from the regular drills except upon the presentation of a written certificate of disability signed by a physician. Satisfactory completion of the work in this course entitles the student to one unit credit toward graduation. Three periods a week.

# MUSIC

## MR. JOHNSTON

To meet the ever increasing demand for grade teachers who can teach music in our public schools, every student entering this school with the idea of making school teaching his profession should do so with the earnest determination to go into the music work with enthusiasm and the ambition to excel in the various phases of the subject as it is presented, whether cultural or practical, as no study he may take up will require greater attention and concentration than this. Previous preparation in the grammar or high school or received through private teachers will enable the student to occupy a more advanced position here, but lack of preparation will not bar any one, as classes are formed to care for all, and whether coming with or without preparation all will receive instruction according to their needs, their own co-operation and responsiveness

being the main requirement expected in return. Neither will any other study taken up give the student more pleasure or profit, present or prospective, than this, for, according to what is put into it, results will be returned a hundred fold in ability to teach and entertain others, capacity for being entertained, and in becoming more valuable socially.

Music is a part of the professional work of the course and credits the student with one unit of the ten required in that department of study. The aim is to make the student entirely self-reliant in music reading, independent in carrying any part within the range, and suiting the character of the possessor's voice, and to develop a genuine love for music.

Study begins in the second year of the student's course, and the time devoted to it consists of four periods a week in class, for the year, being equivalent to two periods a week, for two years, the required time of the course in this work.

The subject continued in the Junior year is assigned two periods each week for the entire year, the work consisting of continued study in theory of music, including elementary harmony; vocal practice and sight reading are continued, and their direct application to methods of teaching and presentation, in detail.

Special classes are formed to accommodate students coming from high schools, in which they can complete the required amount of music work necessary for graduation, namely, two hours per week for two years.

The student at all times is given work within his capacity to perform, and is carried along in easy but practical stages, acquiring not only a knowledge of the fundamental principles of the subject, but is fitted to apply himself in working out his own musical problems, by frequent individual recitation in class, from which no one is excused.

This ability is acquired through constant reading of good music, in the form of unison and part songs and other supplementary materials, conceded to be the best method for the development of vocal technique, and power of concentration in sight reading, at the same time making familiar to the student a vast amount of the music of the best writers, thereby cultivating taste in the selection of what is best in music.

For general chorus work in assembly, Hoover's Hymn and Song Collection is used; for advanced chorus work in Glee Clubs, The Laurel Song Book, with supplementary selections of the best choral music will be used, while in class

work the material will consist of the Progressive Music Series, published by Silver, Burdett & Co., and the course arranged as follows:

Music 1: Second year, four periods a week. Textbooks: First and second books, Progressive Music Series.

Music 2: Junior year, two periods a week. Textbooks: Third and fourth books, Progressive Music Series.

Musical Essentials, by Harold B. Maryott, and published by The John Church Co. will be used in all classes as a supplementary textbook.

Many of our students take instruction in piano playing; there are excellent piano teachers in Tempe and Phoenix with whom such instruction may be arranged privately, and the lessons paid for, but the pianos of the school are made available to such students for the convenience of practice, and may have stated hours assigned them upon application.

# INSTRUMENTAL MUSIC

#### MRS. WILLIAMS

In addition to the usual course in vocal music, there has been added this past year instruction in orchestral and band instruments, and it has been taken advantage of by many of our students, with and without any previous preparation and with such beneficial results to the individual student that it is determined to continue this feature of music instruction.

The object to be attained is the establishment of a school band and school orchestra by the development of the talent of the student applying for instruction, to that point of proficiency as shall make him eligible to membership in either or both of these organizations.

With this object in view, expert instruction is given in the playing of the following instruments:

STRINGS: Violin, viola, cello and bass.

Wood-WIND: Flute, piccolo, clarinet, oboe, bassoon and saxaphone.

BRASS; Cornet, baritone, alto, tenor, tuba and slide.

DRUMS, etc.

Instruction is also given in playing mandolin, guitar and banjo.

It is required that each student applying for instruction shall provide, at his own expense, the instrument he wishes to study, keep up repairs on same, and to purchase his own music and textbooks, as directed by the teacher, instruction alone being otherwise free to the student.

It is suggested to prospective students desiring to take up work along any of the above lines and possessing the instrument they wish to play, that they bring it with them when entering school and avoid delay and expense in sending home for it.

Textbooks and studies will be prescribed by the teacher in charge, according to the individual needs of the student and the class work to be pursued.

# PHYSICAL SCIENCE

## MR. IRISH

Physics 1: Two periods of laboratory work are accepted as equivalent to one period of lecture or recitation. A general course in elementary physics, including laboratory practice in measurements of length, mass and time, in connection with a series of exercises designed to develop the leading principles of mechanics, heat, magnetism, and electricity, with selected exercises upon the subjects of sound and light. Textbook: Black and Davis, Practical Physics. Third year, first semester. Five periods a week.

Physics 2: An additional semester's course of laboratory work in electrical measurement, sound and light, accompanied by two lectures a week, is open to those who have completed Physics 1, and who have shown special ability along this line. Such students may elect this course in place of the course in chemistry. Third year, second semester. Five periods a week.

CHEMISTRY I: Two periods of laboratory work are counted equivalent to one of lecture or recitation. The course articulates with Physics I which precedes it. The student thus begins his work in chemistry with the advantage of previous experience in laboratory work and methods and carries over with him a working knowledge of the gas laws and the con-

stitution of matter for which he now finds application. The fundamental principles of chemistry are developed as far as possible by the student's own experiments, many of which are quantitative in character. The simple quantitative work has a tendency to increase the care and accuracy with which the exercises are performed, but it is chiefly used to develop qualitative relations which otherwise would not appear. The exercises are so chosen as at the same time to make the student acquainted with the preparation, properties and uses of the more important chemical elements and their compounds and with the practical application of chemical laws and processes. Considerable attention is paid to the discussion of modern methods of industrial chemistry, and especially to chemistry of foods, tests for adulterants in foods, dyeing of textiles, photography, and metallurgical processes. Textbook: Mc-Pherson and Henderson, First Course in Chemistry. Third vear, second semester. Five periods a week.

# PHYSICAL TRAINING AND ORATORY

#### MISS BLAIR

Physical Training: Instruction in Physical Training is required of all students during the five-year course. Each class recites twice per week. The training is based upon the Delsarte Philosophy of Expression and the Swedish and German system of free movements and light gymnastics. The work is conducted in the new Auditorium building, the entire lower floor of which is occupied by the gymnasium. This is furnished with sufficient apparatus for a thorough course in physical training.

The aim of the department is to acquire a symmetrical development of the body as a basis for health and grace—the lessons for the beginner deal with fundamental work, such as marching, correct standing positions and general adaptation to gymnasium rules. After this has been mastered, the regular work is taken up, which includes: Indian clubs, dumbbells, folk-dances, breathing exercises, flexing exercises to overcome stiffness, exercises to develop control of muscles and all devices in training that secure freedom of body action and expression of grace. Exercises are also given to remedy the following defects: weak abdominal muscles, stooping or uneven shoulders, incorrect poise of the head and incorrect positions of sitting or standing.

The advanced work of the Junior and Senior classes is a rational outgrowth of the first three years. It comprises a wider range of training in artistic and esthetic forms of physical culture, harmony in all movements of the body, and a mastery of bodily control.

Lectures are given to the Senior class on health and hygiene. A course in collateral reading is outlined as a supplement to these lectures.

The results expected from the work are: first, a noble and graceful bearing habitually maintained; second, freedom from awkwardness and self-consciousness; third, ease and precision in the movements of the body; fourth, a continual and gradual development toward a symmetrical body without injury or strenuous exercises which might prove harmful, and fifth, a knowledge of the body and the rules governing its development and preservation.

As the primary object of the department is the development of the individual, as much personal attention is given to each member of each class as possible.

To secure uniformity of costume, students are advised to confer with the director at the beginning of each school year.

Oratory—The department of Oratory embraces reading, elocution, debate, oratorical delivery, and all forms of public speaking. The courses given are as follows:

READING, FIRST YEAR—The first year reading is the beginning work from the textbook, Cumnock's Choice Readings, and deals with all forms of speaking. The fundamental work is English pronunciation, mastery of the articulatory organs, and steps toward becoming a distinct and natural speaker or reader. The standard of the beginning work is to be able to read naturally and distinctly, giving thought and proper expression to what is read. Special attention is given to reading intelligently from the printed page in both this and Junior reading.

READING, JUNIOR—This course is arranged for those who enter the two years' course for high school graduates. It includes all of the work of the first year course in reading, but takes a broader form in method of teaching and application. The standard is distinctness and naturalness with special stress placed on expression and the interpretation of literature.

Both first year and Junior reading recite five times per week, one class each week being conducted in the Auditorium for practice work and criticism.

Public Speaking—In the department of Public Speaking, the director has charge of all public work in contests, debates, plays, society programs, etc. In any one of these the students are given assistance to present their work in a natural and creditable way. In this instruction the fundamental principles of oratory are observed. As in reading, the standard is naturalness in oratory and a thorough mastery of the thought expressed.

Standard plays are given each year. The students who are chosen to take part receive personal instruction from the coach, in dramatic principles and interpretation. Such plays as "The Return of Eve," "A Gentleman from Mississippi," and "Fanny and the Servant Problem" have been given with decided success.

# PROFESSIONAL INSTRUCTION

General Statement—The professional work of the Normal is its characteristic feature. Everything else is arranged to lead up to and culminate in the professional training of the graduates. Two courses in professional studies are offered; the first is given in connection with and as a part of the regular five-year course of the Normal, and the second is open to the graduates of four-year high schools who come to the Normal for the purpose of taking the professional training. This course covers two years of work. The professional instruction is equivalent to nine of the twenty-four units required for graduation.

PSYCHOLOGY. MR. PAYNE—The aim in the course in psychology is to arouse the interest of the student in the scientific study of mind and to teach them the principles of the science as far as can be done in so short a course. The work is given by textbook, lectures, class exercises, demonstrations, and reference readings. Themes upon assigned subjects are required. The purposes kept in mind are to show the nature and development of the human mind, especially the child mind, to show the application of the science to teaching, to develop a vocabulary sufficient for the understanding of pedagogical writings, and to lead to a better understanding of pedagogical

problems. The course is given the first semester of the Junior year.

Textbook: J. R. Angell, Psychology, Henry Holt & Co.

Pedagogy. Mr. Payne—The course in pedagogy follows directly upon that of psychology. The chief purpose of this course is to show the principles of learning and to develop from these the principles of teaching. As the students of this course begin their practice teaching at the beginning of the Senior year, the latter part of the course is devoted to the application of the principles of teaching to various subjects with practice in lesson planning. The more detailed study of methods comes during the Senior year. Some time is also given to the discussion of the course of study, relative value of subjects, and the relation of the child to the curriculum. The work is given by textbook, class discussions, lectures and reference readings. Second semester, Junior year.

Textbook: Strayer, Brief Course in the Teaching Process, The MacMillan Co.

HISTORY OF EDUCATION—The course in the history of education aims to present the cultural development of the race as this comes out in the growth of the schools and in the development of thought represented by the philosophers and educational reformers. It is a study of movements as represented by men in different systems of education. The work is given by textbook, lectures, and reports by the students. Second semester, Senior year.

Textbook: F. P. Graves, A Students' History of Education, The MacMillan Co.

ETHICS—The work in Ethics aims to awaken in the students a clear consciousness of the vital importance of moral problems and to show them the value of dealing with such problems by rational thinking. The work is taken up historically, as this method has proved its usefulness in showing how the various theories of moral conduct have grown successively out of one another and how they stand related to other factors in the cultural development of the race. Special attention is given to social and moral aspects of present day education.

Textbook: King, Social Aspects of Education, The Mac-Millan Co.

SCHOOL ECONOMY AND SCHOOL LAW—Instruction is given in these subjects during the Senior year. The work

in School Economy is especially adapted to the needs of teachers who must manage schools without the help of a principal and it deals with practical problems that arise in everyday school rooms. Rural school problems are given special attention. Among the topics included in the course are school organization, classification and grading of pupils, school discipline, the relation of teacher to pupils, parents and social environments, arrangement of exercises and provisions relating to order, the keeping of records and making reports, the lighting, heating, ventilating, seating, and decorating of school buildings. The course in School Law aims to acquaint the students with the school laws of Arizona, and to compare these laws with the school laws of other states with a view to arousing an interest in the legislative enactment of such amendments to the school laws as will have a tendency to benefit the public school system. The course embraces a careful study of the laws relating to state, county and city supervision, including the powers and duties of boards of education, school officers and teachers; qualifications and certificating of teachers; the organizing, uniting and dividing of school districts; the revenues derived from state, county and district taxation, including the apportionment of the same; uniform textbooks, courses of study, etc.

# THE TRAINING SCHOOL

The Training School is organized under special laws, but is conducted as a regular public school of eight grades and kindergarten. The large number of teachers makes it possible to keep classes small and give special attention to the needs of individual children.

The professional work of the Training School has two sides—the theoretical and the practical. The courses in general and special methods make up the theoretical side. The practical work consists of observation of model teaching and practice teaching in the Training School when the theoretical work is applied, thus bringing about the close relationship that should exist between the two sides of the work.

METHODS—The methods, general and special, are taught by the principal and faculty of the Training School. It is their effort to present normal school methods in such a practical way that graduate teachers will follow the prescribed course of study in an intelligent manner. Primary methods are given special attention on account of their fundamental nature.

Observation and Practice Teaching—Each Senior observes model teaching and teaches in the Training School during one full year. The observation of model teaching alternates with the practice teaching throughout the year, the purpose being to give opportunity for immediate application of observed methods. All this work is done from carefully prepared plans under the supervision of the critic teachers.

Every year a large number of graduates take positions in the small schools of the state. In order to provide special training for these teachers, it is proposed to work with one of the adjoining districts in building up a model one-room rural school. In this school student teachers will be able to study rural school problems at first hand.

Actual rural school conditions will be maintained, and the equipment, heating, ventilation, sanitation, school gardens, library, etc., will be such as the average school may have with a careful expenditure of its regular income. Students will be expected to work out problems of community service as well as the problems of administration and instruction in the school itself. Such training will not only fit teachers to deal with rural school problems more efficiently, but will instil in them a better attitude toward the work and a better understanding of the importance of the school as a social force in the community.

# KINDERGARTEN

#### MISS ZELLER

Teachers' Course in Kindergarten and Primary Work—There are two courses offered in kindergarten training, one in the Junior and Senior years of the regular professional courses, which grants the regular normal school diploma with a special recommendation, qualifying to teach in the kindergarten and primary departments in the public schools of the state, the other a specializing course, leading to a special diploma, the equivalent of a full two-year course in kindergarten training.

#### COURSE I.

In this course kindergarten theory and technics will be substituted for music and writing in the Junior year and agriculture in the Senior year of the five-year professional course. In the two-year professional course for high school graduates a substitution will be made for academic elective, spelling and agriculture.

KINDERGARTEN THEORY AND TECHNICS—This work aims to give the student insight into child life through the study of child nature and its development, which is carried on by means of observation, discussion and the reading of child study literature. The technical studies embrace a study of the materials of the kindergarten, and cover program making, games, occupations, gifts, stories, songs, pictures, color work and nature study. Opportunity is given for practice teaching in both kindergarten and primary classes.

#### COURSE II.

This is a two-year course being established for students desiring to specialize in kindergarten and primary work and requires a thorough scholarship basis as well as an aptitude for the special kindergarten interests and arts. The basic studies, psychology, reading, English grammar. music, drawing, pedagogy, physiology, methods, ethics and history of education will be taken in the regular normal courses.

LITERATURE—Insight into the nature of man in some form of conflict with the world-order as established in the ethical institutions of Family, Society, State or Church as shown by Homer, Dante, Shakespeare, Goethe.

JUVENILE LITERATURE—A brief history; value of reading habit; how to judge books; to become familiar with best literature for children. A preparation for story telling.

Sociology—Survey of primitive institutions and their evolution to the stage reached by civilization of today and ethical relation of the same. This course includes the study of the institutional world based on the will of man, evolution of Family, Social World, State and the Church, with the School as the instrument for the training into consciousness of the child's relationship to each of these institutions.

MATERNAL EFFICIENCY AND CHILD HYGIENE—"Mother-hood is not dignified by ignoring it, nor by the ignorance that makes it grossly inefficient." The kindergartner needs to

meet the problems of heredity, alcohol and the economic degradation of the home. In child hygiene special attention will be given to habits and the sexual life of the child. This course hopes to arouse interest in motherhood that will give a better balanced view of life.

NATURE STUDY—This is not an analytic study, but endeavors to teach love and reverence for life as manifested in nature, by means of the care of plants and animals and excursions into the outside world.

Music—This is a short course in the evolution, interpretation and appreciation of music by means of the lecture, piano and victrola.

Applicants for admission to the kindergarten training courses must qualify under one of the following conditions:

- (a) Normal students must have completed the fifteen (15) units required in the first three years of the Normal course leading to professional courses including the units of drawing and music.
- (b) Graduates from a full four-year academic course must come recommended for special training in kindergarten and primary work by the principal of the high school as to personality and moral fitness for the work.
- (c) Students not graduates of any high school but who have had work which is the equivalent, can be admitted to this course.

All candidates must be able to play and sing simple songs to meet the requirements of a good kindergarten. Those who fail to pass the musical test will be required to make up the deficiency by means of special lessons.

# **SPANISH**

#### MISS SALMANS

The reason for offering Spanish is three fold: first, to meet the needs of those students who wish to gain college entrance credit in modern languages; second, to assist those intending to teach in the Southwest, where many descendants of the Spanish-speaking settlers still live; third, to prepare those who may wish to identify themselves with the industrial development of Spanish-America, which offers such wonderful opportunities to the American possessing a speaking knowledge of Spanish. Two years of Spanish are accepted as two units by the leading universities in the United States.

The two-year course in Spanish is elective in the second and third years and Junior and Senior years. High school graduates may elect Spanish.

ELEMENTARY SPANISH—For beginners. Pronunciation, essentials of grammar, reading, conversation. Affords a reading knowledge of Spanish and the ability to carry on a simple conversation. Textbooks: Espinosa-Allen, Elements of Spanish Grammar, American Book Co.; Escrich, Fortuna, Ginn & Co.; and about two hundred pages of simple prose.

ADVANCED SPANISH—Translation of prose and verse; review of grammatical principles; rapid reading; conversation. Conducted mainly in Spanish. Attention is also given to the forms of Spanish commercial correspondence. Textbooks: Remy, Spanish Composition, D. C. Heath & Co.; Gutierrez, El Trovador, D. C. Heath & Co.; and about two hundred pages of modern novels and drama.

# LIBRARY

# MISS WRIGHT; MISS M'KELVY

The Library is on the first floor of the Main Building and is the laboratory for a greater part of the students' work outside of classes. It now contains 8,500 volumes, selected to meet the demands of the various courses of study, to give the students a chance to become familiar with the best that has been written and to provide wholesome and stimulating recreational reading. One hundred of the best periodicals are received currently and are a valuable asset for research work.

A children's library is located in the Training School. A careful selection of 1,000 of the best children's books gives an unusual opportunity to Senior students to know juvenile literature and how to bring books and children together, a valuable factor in a teacher's equipment. This library offers an opportunity to twelve Seniors each year for actual experience in the administering of a school library.

LIBRARY METHODS—The object of these courses is to familiarize students with the use of books and libraries, with special work for the Senior class on the formation of a school library.

FIRST YEAR—Structure and printed parts of the book. Classification and arrangement of the library. Use of card catalog. Encyclopedias and dictionaries. Periodical indexes.

Second Year—Periodicals. Reference books. Making a bibliography.

JUNIORS—The work outlined for the first and second years is given for the benefit of students entering in the Junior year.

Seniors—Buying and selecting books with special reference to children's literature. Government documents. Mending. Use and arrangement of pictures. Some lessons to give to children on the use of books. The school library.

# **ATHLETICS**

#### MR. SCHAEFFER

The games, exercises and various phases of this work are of such a nature that both girls and boys may participate in some form of exercise and all students are urged to take an active part. The athletic training is under the personal charge of a regular coach. While the students are encouraged to participate in athletics, such participation is held subordinate to the educational work of the institution. Students deficient in studies, irregular in attendance or unsatisfactory in deportment are not permitted to represent the Normal as members of its athletic teams. The work has been greatly stimulated by the presentation of three silver cups. These were given by the "Student," and stand as prizes to be contended for annually by the various classes in track, tennis, and basket ball.

Athletics has attained such success and has assumed so much importance in this institution that the Board of Education has deemed it expedient to place all athletics in charge of a man especially qualified for this work, and with this object in view an Athletic Director has been secured who has sole charge of all athletics and who devotes almost his entire time to this work. He is an athlete himself of very high rank, with exceptionally good training, who has had excellent advantages and held a prominent place in Eastern athletic circles.

#### FOOTBALL

The great American game, foot-ball, was introduced as one of the methods of recreation for the young men of the Normal in the fall of 1914. By the interest and enthusiasm shown in this sport there is no doubt but that football will be played each year. On one of the best athletic fields in the state the Normal boys produced a team whose success during the seasons of 1914 and 1915 has been instrumental in permanently establishing the game at Tempe Normal.

Football is played not simply to develop brute strength, but to give each and every boy an opportunity to enjoy some good, vigorous recreation, and at the same time to develop him physically, mentally and morally. In order to play football each player must be in the best of physical condition and health, and with this purpose in view, very stringent training rules are adhered to, that do not permit the young man to dissipate in any form whatever. With this method of training and at the same time instilling into the youth the best of habits and methods of living, there were no serious accidents during the whole season of 1915.

The interest and popularity of this game is shown by the fact that there were always more than enough young men in suits to form at least two teams of eleven men each. The competition for the various positions on the team was so great, that the coach often had difficulty in selecting the best man for the position. This year class teams will be developed and an interesting series played.

With new suits, pads, and all the necessary equipment, the students are all looking forward with great interest to the opening of the football season of 1916.

BASKET BALL.—After the football season closes, all athletic interest is turned to basket ball. This game is played on an outdoor court and here again the rivalry is so great that there are

at least two men for each position on the team that represents the Normal in match games with other teams. Besides this team, each class is represented with a team in the interclass series. This form of recreation is also one of the best for the student who spends the whole day in the class-room. During the season of 1915, this series of interclass games developed unusual interest in the sport and awakened that wholesome spirit of rivalry which is invaluable to the success of any form of athletics.

Tennis—Several splendid courts—the best in the state—have been made and are kept up by the school. Everything is done that will enable the students to enjoy the game to the fullest during the whole school year. Each year inter-class tournaments are held. This is the one branch of athletics that can and does do the most for class spirit. In addition to the inter-class matches an annual tournament is held, wherein the most prominent schools of this part of the state take part.

GIRL'S BASKET BALL—The young women maintain a basket ball association whose purpose is the amusement and recreation afforded by wholesome outdoor exercise. During the fall five teams are organized, one from each class, and these teams play a series of twenty games for the possession of the silver cup offered by the "Student." The exercise is not confined to these teams, however, for each class usually organizes at least two teams, so that the work is open to all who wish to play, and each year from sixty to a hundred girls enjoy the physical benefits of this fine game. In addition to the interclass games a limited number of match games are played with teams from other schools. Two fine courts are kept in first class condition, being well laid out and surrounded with wire netting, which reduces to a minimum the loss of time due to the ball going out of bounds. The work is under the direct supervision of a member of the faculty, who guards against over-exertion on the part of untrained players and regulates the amount of exercise according to the strength and physical condition of the individual.

TRACK—This is an excellent form of athletics for the reason that it affords an opportunity for training to every student who desires exercise. The Normal School is a member of the Valley League Athletic Association, which conducts annual track meets. The Normal School easily won the championship in this league last year. This efficiency has been attained by a system of coaching that makes each boy his own trainer. As

such he studies the proper method of physical development and obtains a practical knowledge invaluable to his future years. There is a fine track on the campus for distance events, and a 220-yard straight-away course for sprints. Suitable apparatus for all standard events has been purchased and all young men are urged to enter this field of athletics.

BASEBALL—This, the greatest of all of the American games, is better supported by the student body than any other form of atheltics. Every boy hails the time when the baseball season opens. The Normal diamond, located on the campus, is reputed to be the finest in the state. The training quarters are provided with shower baths, while the association furnishes suits, gloves and other supplies. The Normal boys won the Republican cup in 1912 and 1913. When this is won one more year by the Normal it becomes their permanent possession. A new impetus has been given to all forms of athletic work by the erection upon the athletic field of a neat and commodious amphitheater which comfortably seats a large number of spectators, affording them shelter from sun and an unobstructed view of the games. Beneath the amphitheater, ample training quarters have been provided for the accommodation of the players. These quarters are fully equipped with hot and cold water, showers, lockers, tables and benches and all sanitary appliances for the physical care of those taking part in athletic work. With all these conveniences and inducements offered. there is no reason why any student should neglect the important matter of physical exercise.

# SPECIAL INFORMATION

LITERARY SOCIETIES—Every student of the Normal School may avail himself of membership in one or other of the literary societies that are maintained by the student body. There are at present five of these organizations, meeting either weekly or bi-weekly. These societies are organized for the purpose of affording opportunity for original literary work, to acquaint the student with parliamentary usage and with the customs and practices of deliberative bodies, and to develop ease and facility in public speaking. Participation in the work of these organizations is considered an important part of the regular work of the school. A member of the faculty is detailed for each society to act as critic and to give assistance and advice

when required. The members of all societies receive individual aid and instruction from the instructor in oratory.

The societies are as follows:

The Athenian Debating Club—This is the oldest literary organization in the institution. It has on its roll men who are leaders in the organized activities of the school, and among its ex-members are men prominent in the affairs of the state and nation. During the past year the A. D. C. membership has been small but strong. The President tendered the club and lady friends a banquet during the early part of the year to express his appreciation of the efficient way in which the first public debate of the season was rendered. In addition to the regular work of debating, the club has been interested in the study of the principles of argumentation and Parliamentary Law.

THE ZETETIC SOCIETY—This is an organization consisting of twenty-five young women. During the past year weekly meetings were held, and the entire year was devoted to the study of modern plays, including selections from Galsworthy, Shaw and Maeterlinck. A lively interest was shown in this work and the programs were varied by the introduction of appropriate vocal and instrumental music offered by the members. Several very enjoyable social meetings were held during the year, and the members are looking forward with interest to the continuation of their work along similar lines.

KALAKAGATHIA—This society has a membership of twenty-five young women. Vacancies made by the Seniors are filled from the various classes of the school. The objects of the society are, by union, "to promote the happiness and usefulness of its members, and to create a center of enjoyment, friendship and culture." The members have always lived up to the spirit of their constitution and good programs have been the result. Various lines of work have been planned each year, the drama, the short story, grand opera with records on the Victrola and programs from current literature. During the past year biographies of noted men and women have been studied. The social side of development is not neglected, and a place is made in the year's activities for several social gatherings.

THE NORMAL DEBATING SOCIETY—The object of this organization is to give training in public speaking and parliamentary law. Programs have been held weekly, and though

the work of each evening has centered about a debate upon some public question, variety has been given by discussions of scientific achievements, readings and musical numbers. Enthusiasm in the work was stimulated not only by inter-society debates, but through competition of rival teams within the society and finally by the contest for the Sandige Debating Cup which is awarded annually to the member of the society who takes first place in the last debate of the year.

CLIONIAN LITERARY SOCIETY—The Clionian Literary Society has a membership of twenty-five young ladies who are desirous of mutual improvement in literature, art, music, and friendship. During the year meetings were held weekly. A study was made of American Women Writers during the early part of the year. The latter part of the year was devoted to the study of the world's great painters and their masterpieces. The pleasure of this study was enhanced by the use of the radiopticon, thus placing before the eye the painting being studied. Several social evenings were enjoyed during the year, among which was the annual party to the Senior members.

INTER-SCHOLASTIC DEBATES—Arrangements were made last year for the first time for an inter-school debate between the Tempe Normal School and the Northern Arizona Normal School at Flagstaff. Two teams were chosen by each school, one team to remain at home to meet the opponents' visiting team, the other team to visit the other school and meet the opponents' home team. The two debates were held the same night, and the same question was discussed at both places. While inter-club contests arouse a great deal of enthusiasm, it must be said that our first contest with the other Normal School had a powerful and wholesome effect upon debating work in general. No doubt this tentative arrangement will become permanent and a similar inter-school debating contest will be held annually.

#### THE STUDENT

"The Tempe Normal Student" is a school paper published bi-weekly by the students of the Normal School. It serves as the medium through which school activities, scholastic, athletic and social, are made known to the public, and it furthermore encourages literary work among the students. Stories and essays of value written in the English department often find publication here and contributions from aspiring authors are always welcomed. Thus the publication gives an added zest to practical literary work and stimulates the life and spirit of the student body, all being vitally interested in its welfare.

The student body in general and the staff in particular are responsible for this publication, and they have endeavored to keep it up to literary standards and at the same time to render it spicy and entertaining.

It has been the custom for the management of "The Student" to hold an annual declamatory contest open to the pupils of Arizona high schools and to award medals to the winners. Owing to certain changes and re-arrangements in the personnel of the staff, and to other circumstances, the usual contest was not held this year, but it is probable that the custom will be resumed the coming year.

#### LECTURE AND ENTERTAINMENT COURSE

It is not necessary to emphasize this feature of school advantages further than to state that the attractions scheduled for 1916-1917 will not merely equal, but will actually surpass any course heretofore presented to the students and public of Tempe both in its instructive and entertaining value.

It is the most expensive course the committee has ever dared to contract for and includes the very choicest numbers sent out by three leading lyceum bureaus, the Redpath, the Dixie, and the Affiliated.

The course last year included the following excellent talent: The Cavaliers, Operatic and Concert Company; Laurant, noted magician; play, The Servant in the House; The Old Home Singers; Dr. David Starr Jordan; Edmund Vance Cooke; and Rev. James Whitcomb Brougher.

That of the coming season consists of The Metropolitan Male Quartette Company of New York City; Ralph Parlette, entertainer; Bishop Hughes of San Francisco, lecturer; The Clifton Mallory Players, seven clever actors in one of the following successes: David Garrick, The Test, The Hazard, or Thrift; The Killarney Girls and Rita Rich, six young women musicians in Irish costumes in an evening of music and Irish humor; Gay Zenola MacLaren, dramatic reader of modern plays; Kellerman, the eminent operatic baritone with a picked company, in a choice operatic and concert program.

Notwithstanding the above splendid array of attractions, the prices of admission will, as usual, be nominal and within the reach of all.

# YOUNG WOMEN'S CHRISTIAN ASSOCIATION

There has been established for the girls, this year, a Young Women's Christian Association, which is under the special direction of a General Secretary, who gives her whole time to the girls. The purpose of such an organization in a State Normal School is not only to help the girls to form the highest and most practical ideals and standards for their own lives, but also to train them, as community leaders, for the most efficient service. No other organization is able to be of such an influence as the Y. W. C. A. at Tempe Normal School, because it is absolutely non-sectarian, and gives alike to all girls. Moreover it is not a local organization, but a state organization, and thus is made stronger and more efficient.

The work has been most successful this year; many girls, through the efforts of the Y. W. employment bureau, have been given work, which aids them to meet some of their many financial obligations. Besides their weekly Bible classes, the girls conduct an Association meeting once a week; all the subjects that interest girls are discussed and this year they have been fortunate in obtaining some outside speakers, who have told them about many of the conditions in the foreign countries as well as in our own. Through the work of this organization, the atmosphere of the school life has been raised to a higher standard, and more years will only add to its important place in the school.

## **VISITORS**

Visitors are welcome at all times, and educators and clergymen are especially invited to visit the school in all its departments. The faculty is always pleased to make the acquaintance of the parents of the students and to have them make a personal inspection of the school and its work. The people of Arizona are urged to recognize the fact that the Normal School belongs to them, and that the management always appreciates their interest and good will. It is well recognized that their visitors are a valuable stimulus to faculty and students alike.

#### ASSISTANCE AND PRIZES

The Kingsbury Senior Assistance Fund, established by Mr. W. J. Kingsbury of Tempe, provides in a liberal way for the needs of worthy students who find themselves unable to pursue their studies by reason of a lack of means. A certain sum of money has been set aside every year from which loans may be made to students at a very low rate of interest. While the fund is primarily for the aid of the Seniors, yet any student of the Tempe Normal School may, on the recommendation of the faculty, draw upon it. Six students received assistance from the fund during the past year, in amounts ranging from \$40 to \$75 each.

The Moeur medal for scholarship, offered by Dr. B. B. Moeur of Tempe, is awarded each year at commencement to the student who obtains the highest standing in class work during the two years immediately preceding graduation. The winning of this prize has always been considered one of the greatest honors open to the Normal students.

The Moeur pin, also offered by Dr. B. B. Moeur, is awarded to the student who is considered the best teacher in all respects: teaching in the training school, professional spirit shown, and work done in professional courses. The student must have attended the Tempe Normal School for at least two years, and the work for which the pin is awarded must have been completed within the two years directly preceding the graduation. The winning of this pin is one of the highest recommendations that a student may secure from the professional standpoint.

The Harvard Club of Arizona offers to the Seniors of the school a medal for the best essay on some topic connected with Arizona. The subject matter as well as the treatment must be original. Competition for this medal has resulted in much research work and the production of many valuable and interesting essays on Arizona.

Other prizes will be given during each year to encourage oratorical work in the literary societies and to foster interest in inter-society debate.

The Pacific Creamery Company of Tempe, through the courtesy of its President, Mr. J. B. Cook, expresses its interest in the Normal School by instituting an annual event to be enjoyed by the Senior Class. This consists in an automobile tour of the Valley, followed by a dinner or banquet to which

the prospective graduates look forward with lively anticipation, and which is regarded as one of the most enjoyable festivities of Commencement Week.

# NATURAL HISTORY COLLECTIONS

Valuable additions to the museum collections have been received during the past year in the form of donations from friends and patrons of the school. Among these should be mentioned a collection of marine algae from Hawaiian waters contributed by Miss Carrie Thompson '07, and a number of specimens of Arizona minerals collected and donated by Hon. James Goodwin of Tempe.

## THE ALUMNI ASSOCIATION

This association now numbers 764 members. It holds two regular meetings each year and an annual banquet. It is earnestly desired that all the graduates of this school should show a lively interest in its welfare. Their influence on the schools of the State is already plainly seen and will doubtless increase. The faculty desires to be informed of the success of the graduates and to render them professional assistance as far as possible. The association is a valuable means toward this end. The President desires to know the permanent address of every person who has graduated from the Normal School and to be informed of any change in residence or occupation, that it may be properly recorded. The Alumni Register, together with other matter of special interest to the Alumni will appear in a later issue of The Bulletin this year. and graduates are earnestly requested to co-operate with the faculty in furnishing accurate data concerning addresses, occupation and other matters of general interest to members of the association.

### TEACHERS' BUREAU

Although the management of the school cannot agree to furnish employment or find positions for students upon gradmation, yet the President and members of the faculty find many opportunities for recommending teachers to good positions, and this they are always pleased to do as they feel that the

service may be of an advantage not only to the student, but to trustees and school officers as well. The President of the school, when requested, will take pleasure in furnishing to school officers detailed information in regard to the qualifications of its students and alumni to teach; he will also, when desired, put them in communication with teachers seeking employment. In order to be able to recommend a teacher intelligently to a position, the President should be given a full and detailed statement of the requirements and conditions of the position.

# SUMMARY OF REGISTRATION, 1916

Normal School
Training School
Total Registration for year
SUMMARY OF GRADUATES
Prior to class of 1916
Number of professional graduates

# Register For 1915-16

Adams, BirdieDragoon	Brown, Harriet	Globe'•
Adams, Ellis Dragoon	Brown, Ruth	Scottsdale •
Ainsworth, RuthPhoenix	Brown, Willis	New Mexico
Alexander, Cecil Temper	Buchanan, Esther	Ft. Huachuca*
Allen, Blanche Gilbert-	Buck, Leo	
Allen RubyScottsdale	Burns, Ruth	
Anderson, EstainGlobe	Buzan, Alice	
Anderson, Orlin LPhoenix-	Buzan, Clara	
Anderson, WillieGlobe	Buzan, Rosa	
Arbogast, GertrudeTempe-	- •	
Arborn, VerdaBisbee-	Cain, Lorraine	Lowell •
Austin HaroldTempe-	Carico, Helen	
Austin LawrenceTempe-	Carr, Edna	Tempe •
	Carter, Georgia	Kirkland*
Backstein, RitaSonora-	Carter, Lola	
Barker, BlessieFeldman-	Cartwright, Stella	Phoenix.
Barnett, GertrudeMesa*	Casanega, Emma	Nogales -
Barnette, Nellie Chandler.	Cast, Alice	Phoenx •
Barry, John H. Glendale,	Cauthen, John	Duncan-
Barry, NellieGlendale	Celaya Ida	Tempe
Bartlo, DeweyPhoenix.	Chancey Floy	Bisbee -
Bauer, AugustTempe	Chappelka, Ethel	Rav•
Baxter, BerniceWickenburg.	Chase, Carl	
Baxter, Richard Wickenburg,	Chitwood, Mary	Tempe.
Beaton VioletPhoenix	Churchill, Clark	
Behn, RuthPhoenix.	Clark, Myrtle	Illinois -
Benson, GertrudeBuckeye	Clary, Helen	Canada
Benton, AloraTempe	Coffin, Edwin	Temne.
Berry, AidaDos Cabezos	Cole, Anna	
Berry, Emilia Dos Cabezos	Collins, Ruby	
Biery Donald Florence	Collins, Sabrey	
Bishop Florine Tempe	Cook Eula	Havden
Blackwell, GertrudeTexas-	Corbell, Beulah	Tempe.
Blount, Alma Tempe	Corbell, Ethel	
Blount, Marie Tempe	Cordes, Minnie	
Bloys, LenaTempe	Corey, Isabel	
Blue, Curtis Tucson	Cosper, Lucy	
Blue, EthelTucson-	Cowen Mary	Ray +
Bockoven, Mabel Louisiana	Craig, Sydney	Crown Kings
Bockoven, MarthaLouisiana	Craig, William	Crown Kings
Barrera, LouisWickenburg	Crook, Lanier	
Boldman, MonaLiberty.	Clook, Daniel	тольро
Bond, GeorgeMesa.	Daley, Julia	Mesa •
Bone, CalliePhoenix	Daniels, Margaret	DuQuesne •
Botkin, RuthTemper	Dennis, Thelma	
Brooks, BertinaPhoenix.	Denton, Gladys	Patagonia -
Brooks, Jennie LeePhoenix	Detloff, Blanche	
Brown, Abigail Dragoon	Dines, Willietta	
Brown, AliceStark	Draper, Howard	Wickenburg
	• • • • • • • • • • • • • • • • • • • •	

Brown, Harriet	Globe'•
Brown, Ruth	Scottsdale •
Brown, Willis	New Mexico
Buchanan, Esther	Ft. Huachuca*
Buck, Leo	Tempe .
Burns, Ruth	Higley.
Buzan, Alice	Winkelman
Duran Clara	Foldman*
Buzan, Clara Buzan, Rosa	Winkelmen
Buzan, Rosa	AA HIIV GITHSTII A
Cain, Lorraine	Lowells
Carico, Helen	Mowles
Carico, Helen	
Carr, Edna	rempe
Carter, Georgia	Kirkiand*
Carter, Lola	Hayden
Cartwright, Stella	Phoenix.
Casanega, Emma Cast, Alice	Nogales •
Cast, Alice	Phoenx •
Cauthen, John	Duncan-
Celava Ida	Tempe
Chancey Floy	Bisbee -
Chappelka, Ethel	Ray•
Chase, Carl	Kansas
Chitwood, Mary	Tempe.
Churchill, Clark	Nehraska.
Clark, Myrtle	Illinois
Clark, Myllie	Canada
Clary, Helen Coffin, Edwin	
Cole. Anna	тещре-
Collins, Ruby	
Collins, Sabrey	Superior-
Cook, Eula	Hayden
Corbell, Beulah	Tempe •
Corbell, Ethel	Tempe,
Cordes, Minnie	Tempe,
Corey, Isabel	
Cosper, Lucy	Douglas-
Cowen, Mary	Ray •
Craig Sydney	.Crown King-
Craig, William	Crown King*
Crook, Lanier	Tempe+
Daley, Julia	Mesa.
Daniels, Margaret.	DuQuesne •
Dennis, Thelma	Havden.
Denton, Gladys	Patagonia -
Denton, Gladys Detloff, Blanche	Bisbee -
Dines, Willietta	Temne*
Draner Herrend	Wiekenhung

There Wishing Michigan	Hall Mar Greeks Marie
Dryer, Wirt Michigan Dubs Muriel Douglas	Hall, Mrs. GussieTempe
Duncan, Clara Bisbee	Hansen, GraceTempe Hansen, LenaChandler
Duncan, Clara	
Earl, LuluMesa-	Hanson, LucyTempe
Eckel, Grace Prescout	Harman, Marie Benson- Harrington Helen Crown King
Eisenhart, John Pearce	
Elkin, LaurenPhoenix	Harrison, FrankDuQuesne
Elliott Myrtle Scottsdale	Harrison, IlaDuQuesne
Emmett, Belle	Harrison, Halan Duguesne
Enderton, HerbertYuma	Haulot, HelenTempes
Enderton, OttoYuma	Haverty, HelenBisbee
Escapule, EmmaTombstone	Hayden, HelenScottsdale
Estrada, IsabelTempe	Hayden Mildred Scottsdale
Estrada, isabeliempe	Hayden, WilfordScottsdale
Faras, RoseDouglas.	Hayes, CecilPhoenix
Farley, Niall PPrescott	Heffelman, Malcolm Mayer
Farrell, Katherine Patagonia	Hensley, NoraTempe
Faulkner, Alice	Hickey, JosephPhoenix
Fears, MillardPhoenix	Hilbers, IdaTempe
	Hilbers, Henry LTempe
Felch, Marie Phoenix	Hillerich, Elsa Mesa
Finch, RobertTempe	Hodnett, ErinaTempe
Fitch, GladysServoss.	Holder, SarahKirkland
Fogal, AltaTempe,	Holt, GuySan Simon.
Fortson, Pearl ALouisiana	Hopkins, VernaRay-
Foster, Jack Pima	Houck, MarthaMontgomery.
Fram, Alfred Tolleson	Houston, Nathan'lFt. Huachuca.
Franklin, KatherineWinkelman	Howe, DeweyNew Mexico
Frizzell, FlorenceTempe-	Hudson, GraceDos Cabezos-
Fuller, ElizabethGilbert	Huff, BessArkansas
	Humphrey, EllenPhoenix
Gaut, RuthMesa	Hurley, HarrietPhoenix
Geddis, Alfreda Scottsdale.	
Gibson, ElizabethCalifornia	Imes, LelaMesa
Gillig, Julia Indiana	Ivy, ArchiePhoenix
Glissan, GladysNogales.	Ivy, EdnaPhoenix
Godfrey, GeorgeTempe	Ivy, ElizabethPhoenix
Godfrey, LucettaTempe-	
Goodwin, FrancesPhoenix-	Jackson, RuthTempe
Goodwin, GordonTempe.	Jennings, MaryPrescott.
Grable, DorothyPhoenix-	Jensen, LauraTempe
Grable, VictorPhoenix	Johnson, Mary Ellen Indiana-
Graham, RoseSafford	Johnson, VeraCalifornia
Granger, AgnesRoosevelt-	Johnston, DorothyTempe
Graves, Evelyn Phoenix	Johnston, JanetTempe -
Green, Macy Thatcher	Jones, EmilyLehi
Gregory, VivianYuma	Jones, MauriceTempe
Griffin, ArthurNew Mexico-	Jones, LeonaTempe
Griffin, CliffordNew Mexico.	Jordan, StellaCottonwood
Griswold, AileenNogales.	weather water Transport
Grossetta, LillianTucson-	Kellogg, PlumaKansas
, m,	Kelly BezzMissouri
Hagely, TheresaQuartzite-	Kendall, Cathuleen Phoenix
Haldiman, HelenPhoenix	Kleinman, AnnaMesa

Kleinman, MaybelleTempe-	Morrison John Puntenney.
Knight, AliceRay	Morrison Lois Glendale
Knapp, MarionMissouri	Morse, BerthaPhoenix
Kries, ElizabethGleeson-	Mortenson, LucileMesa
Miles, Milatoetii	Moss, LuluTempe
Laney, GrantMesa-	Motes, AlvaFt. Thomas-
Langley, LeonaCochise	Motes, Brigham Ft, Thomas
Langridge, Ina	Munro, IreneDouglas
Latimer, RuthPhoenix	Murchison, AlephTempe
Layton, CarrieThatcher	
	Murchison, GladysTempe
Lee, HazelPhoenix	Murillo, GeorgeMetcalf
Lembke, Ormond	None Mariania Claha
Leon, ConcepcionGila Bend	Nave, MarjorieGlobe
Leon, John	Nelson, GertrudeMesa
Lockling, BretCourtland	Nelson, John HughCrown King.
Lockwood, MarionNaco	Nelson, LucileTempe
Longan, LaurenceTempe	Nelson, MarionDouglas.
Looney Robert Prescott	Nettle, EvelynTempe
Lorona, Leonor	Nigh, CoraGlendale
Lusa, MildredDouglas.	Norton, MariettaPhoenix.
	Norton, StellaPima
Maclay, ViolaDouglas.	
MacLennan, KennethTempe	Obert, ElizabethGlobe
Maier, LewisBenson.	O'Connor, JohnTempe
Maier, LuellaMesa-	Orduno, RachelTempe,
Markovich, GarlandTexas	Oviedo, MargaretTempe .
Marley, RenaMesa	Oviedo, RosaTempe
Martin, IreneDuncan-	*
Martin, VeraTempe	Page, ArthurPhoenix .
Matley, WelcomeTempe	Palmer, FernPhoenix
McClendon, LavonaMesa.	Parker, CarriebelTempe
Matthews, LutherTempe	Parker, MabelTempe
McClure, GlennRay.	Parry, SusanTempe
McClure, LouiseYuma-	Pascale, JohnKelvin
McComb, NoraGlendale	Pendergast, ClarenceTolleson
McComb RobertGlendale	Pendergast, RalphTolleson
McIntyre ClaraGila Bend	Perkins, Fannie Puntenney.
McKeen, Elizabeth Colorado	Peterson, LucileTempe
McMains, Harriet	Pew. AnnetteIdaho-
Mercer, VirgilMammoth	Pew, ArielMesa
Mets, Verdell Mesa	Pew, Pearl Mesa
Miller, Glenna	Pfeifer ReathiePhoenix
Miller, HamiltonRay.	Phelps RuthIllinois
Miller, WallaceTempe	
Millet, HazelMesa	Pinyan, RuthGlobe
Mills, AgnesTolleson	Pomeroy, Melza Mesa
Mills, HaroldTolleson	Poor, CrystalCalifornia
•	Powell, LucasMexico-
Minter, ClarencePhoenix	Price, MollieGlendale
Minter, James	Pugh, MarionTempe
Mitchell, AnnahYuma	~ · · · · -
Mitchell, MargaretMexico-	Quinn, KatherineTempe
Moeur, KellyTempe	
Moore, VidaPhoenix	Rawley, WalterTempe.
Morgan, LenoraSomerton	Redden, AgnesCalifornia

Redden, IreneTem	pe-	Stratton	, Ernestine	Winke <b>lman</b> •
Reeves, RoloffTolt	ec >			Kansas
Richardson, AnnaTem	pe•	Strong,	Rhoda	Tempe •
Riggs, Janet Floren		Stroud	Maud	Tempe
Ristow, WilmaWiscons	in•	Sutton,	Ruth	Phoenix,
Roberts, HelenWinkelma	an.	Sweeney	, Chona	Florence
Roberts, RossPalo Vere				•
Robinette Elmer Virgin	ia.			Wickenburg.
Robinson, DorothyChandl	er.			Douglas
Rogers, AnnaThatch	er.	Thiel, 1	silev	Tombstone
Rogers, Gladys Me	\$7.a	Thiel, N	ora	Tombstane,
Rogers, BessieMexic	co+	Thomas,	Elizabeth	Phoenix •
Rohrig, AnnaCaliforn				Scottsdale
Rohrig, SusieTem				Phoenix,
Romo, Robert R				Tombstone
Ross, MaudiePhoen				Tempe •
Rowand, CecileTem	De-			California
Rudd, Katherine Glenda	.le^			Tempe •
Ryder, Beulah Park	er.			Tempe
				Tempe,
Sanders, CarmenNa				Pantano•
Sandoz, Hazel Tem	ne*			Pantano»
Salmans, FloraTem		Turvey,	Willie	Douglas.
Scanlon, William New Mexi	րս <b>ե</b>			
Schindler, Elsie		Vanderh	May	Scottsdale
Schmidt Laura Tem				DuQuesne -
		Vestry,	Hazel	Douglas-
Schoshusen HortensiaTem			2.0	_
Schoshusen, JohnTem				Tempe
Schoshusen, LenaTem				Chandler.
Seeley, Nealie Dougl				Chandler.
Shackelford, BernicePhoen				Palo Verde.
Shannon, MarieWickenbu				Mayer.
Simmons, LintonTem				Tempe
Simon, GladysYun				Lowell
Smith, CecilPhoen				Phoenix
Smith, Edna Tem		White,		Tempe
Smith, MargaretScottsda				Mesa-
Snodgrass, Harriet Phoen				Buckeye
Spray, JosephSuperi				Mexico
Staiger, JosephR	-	William	s, Mrs. P	Tempe
Standage, AvenelTem				Thatcher
Standage, BeulahMe				Safford.
Stanger, MayMorer	ıci-			New Mexico
Stansberry Harry Bucke	ye.			Tempe
Steele Harry Palo Ver	ge.			Tempe •
Stelzriede, AshleyPhoen	ùХъ	WOOII,	r:(nei	Scottsdale
Stephens, Claribel Mian		woor,	Lena	Tempe •
Stewart, EthelMe	sa.	Voune :	Virna	Phoenix
Stewart, JewelTem	De.			
Stiles, EdwardWinsle	• WO	Zenfell.	Edward	Syria •
Still, NellieTem	pe*	Zimmer	man, Erden	eTempe
St. John, Agnes				Тетъре ,

# Class of 1916

Ainsworth, Ruth Austin, Lawrence

Barnett, Gertrude Barnette, Nellie Berry, Emilia Elount, Marie Bockoven, Mabel Bone, Callie Botkin, Ruth Brookbank, Winona

Cain, Lorraine Cast, Alice Chappelka, Ethel Clary, Helen Corbell, Ethel Corey, Isabel Cordes, Minnie

Daley, Julia Detloff, Blanche Dines, Willietta Dryer, Wirt Duncan, Clara

Eisenhart, John Enderton, Herbert

Fisk, Louise Fuller, Elizabeth

Glissan, Gladys Graves, Evelyn

Haldiman, Helen Hanson, Lucile Haulot, Helen Hensley, Elnora Hilbers, Henry Hillerich, Elsa Hodnett, Erin Huff, Bess Humphrey, Ellen Hurley, Harriett

Jensen, Laura Johnson, Mary Ellen Johnson, Vera Johnston, Dorothy Jones, Emily Jones, Leona Jordan, Stella

Kendall, Cathuleen Knapp, Marion Knight, Alice

Laney, Grant

MacLennan, Kenneth McKeen, Elizabeth Martin, Irene Mitchell, Annah Morse, Bertha Mortenson, Lucille Murchison, Gladys

Nigh, Cora Norton, Stella

Parker, Carriebelle Parker, Mabel Peterson, Lucille Pew, Ariel Pew, Pearl Phelps, Ruth

Robinson, Dorothy Robrig, Anna

Salmans, Flora Sandoz, Hazel Schoshusen, Hortensia Schoshusen, John Shackelford, Bernice Snodgrass, Harriet Standage, Avenel Stewart, Ethel Still, Nellie Strong, Rhoda

Tucker, Myrtle Turner, Jewel

Vestry, Hazel

Wanamaker, Ruby Wedgeworth, Ada Wheat, Mary Willcox, Merle Wilson, Sarah Woolf, Ethel

Young Virna

# Training School Enrollment

# 1915-1916

Alexander, Elaine Alexander, Sadie Anderson, Clarence Anderson, Hattie May Anguis, Amelia Anguis, Manuela Arviso, Leonore Ashley, Alice Ashley, Homer Ashley, Raymond Austin, Cedric Austin, Elsie Ayersman, Gladys Ayersman, Harold Ayersman, Leona Ayersman, Paul Ayersman, Robert Ayersman, Wilbur

Baldwin, Dorothy Barcenes, Manuela Barnes, Bernice Barnes, Cecil Barnes, Gladys Basquez, Cruz Basquez, Pastora Bastram, Leone Benites, Alfredo Benites Angelita Benites, Fernando Blackwell, Herbert Bloys, Beulah Blue, Curtis Bockoven, Carl Bojorques, Enrique Bojorques, Jose Bowles, Mildred Bowles, William Brown, Angus Brown, Eddie Brown, Minnie Butler, Dorothy Butler, Thelma

Carter, Clay Cartinhour, Betsy

Casner, Jack Casner, Winona Celaya, Laura Celaya, Lupe Clark, Kenneth Colcord, Dora Colcord Harvey Cole, Benjamin Cole, Emma Cole, Jack Stacy Contreras, Carlos Contreras, Felicita Contreras, Manuela Cordes, Henry Crook, Alta Cummings. Marguerite

Dance, Lillian Frances Dickinson, Theodore Doll, Edward Doll, Leonore Dorsey, Mary Nellie

Elias, Irene Enriquez, Artimeza Enriquez, Carmelita

Felton, Conway Felton, Helen Felton, James Finch, Wilma Floves, Dora Fogal, Gilbert Frizzell, Stella Fuller, Kathryn

Garcia, Neecho Garrison, Dora Garrison, Mary Garrison, Minnie Godfrey, Leona Gonzales, Edith Gonzales, Lilla Grable, Victor Green, Frederica Hand, Ada Mariette
Hand, Albert
Hand, Darwin
Hand, David
Hand, Osborn
Harrington, Orvilla
Haulot, Gertrude
Henderson, Amy
Henderson, Nellie Pearl
Hight, John Milton
Hoeye, Lonnie

Jensen, Carl W. Jones, Carl Jones, Gertrude Jones, Mildred Johnston, Miriam

#### Kleinman, Earl

Laird, Ruby Leon, Joseph Lopez, Angrora Lopez, Lucy Lopez, Marie Lukin, Helen Lusa, Mildred

MacLennan, Anita
Manuel, Aurora
Manuel, Bessie
Manuel, Carlos
Manuel, Carlos
Manuel, Marshall
Martin, Ralph
Martinez, Elisa
Matthews, Frieda
Mencer, Vivian
Messinger, Beatrice
Messinger, Harold
Moralez, Maria
Morrow, Ben
Moss, Charles L.
Mullen, Teddy
Murdock, Rachael Weber

Nelson, Dorthea Nelson, Marion Nelson, Wallace Nichols, Ray Noriega, A. Lionel Noriega, Angelita Noriega, Clara Noriega, Lawrence Noriega, Lucy Ochoa, Eva Ochoa, Juanito Ochoa, Luz O'Connor, Helen Oviedo, Susie

Palomino, Josefa Palomino, Juana Parker, Vernon Parker, Milton Parry, Edward Guidacon, Patricio Patterson, Dwight Pine, Ellis Pollock, Edlee Prather, Harold Prather, Howard Pugh, Pauline

# Quisquis, Frank

Randolph, Rosa Redden, Beatrice Redden, Evelyn Redden, Lela Rhymer, Hazel Rhymer Nellie Robles, Eva Robles, Francisco Rodriguez, Angrora Rodriguez, Antonia Rodrigues, Benina Rodriques Manuel Rogers, Eva Romero, Francisco Romero, Mercedes Rudd, Alex Rudd, Jean Rudd, Melva Russel, Clinton

Sarrategui, Louisa Sarrategui, Lupe Sarrategui, Nelly Schulz, Edith Schweppe, Nona Scudder, Howard Shahan, Emma Shahan, Frank Sigala, Angelina Sigala, Charles Sigala, Rogerio Sigala, Sofia Simon, Baldemar Smith, Cecil
Smith, Ida
Smith, Ida
Smith, Ira
Sotelo, Aurelia
Sotelo, Edith
Sotelo, Josefine
Soto, Natalia
Soza, Ortensa
Steele, Ruth
Stewart, Arthur Lee
Stewart Frank
Stewart, George
Stroud, Robert

Teeter, Helene Teeter, Owen Teeter, Ronald Teeter, Veda Terry, Sallie Turner, Paul

### Urbano, Reynaldo

Valencia, Adolfo Valencia, Maria Valencia, Petra Valenzuela, Artemisa Valenzuela, Carmelita Valenzuela, Johnny Valenzuela, Laura Valenzuela, Stephen Vega, Mary Wanamaker, Alma Warner, Jack Watkins, Keo Watts, Irvine Wesson, Howard White, Irval White, Walter Wiert Sara Fay Wickle, Evelyn Williams, Dorothy Williams, Fay Williams, Glen Williams, Hanen Williams, Hazel Williams, Kathalene Williams, Marguriette Williams, Reba Williams, Rhea Williams, Robert Williams, Sidney Windes, Gertrude Windes, Nora Wood, Mary Wood, Nolen Woolf Harold Woolf, Dorothy Woolf, Ruth . Workman, Marjorie

Yates, Lawrence Yeseas, Sangra

Zellner, Cleta Zimmerman, Wesley REPUBLICAN PRINT BHCP
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