



*Arizona State College*

1945-46.  
TEMPE  
ARIZONA



Tradition Centers Around "Old Main"



Science Building fronting the quadrangle and fountain . . . West Hall Portico



BULLETIN OF

# Arizona State College

TEMPE



ARIZONA

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CATALOG ISSUE FOR THE YEAR 1945-46

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ENTERED AS SECOND-CLASS MATTER, NOVEMBER 30, 1931, AT THE  
POSTOFFICE AT TEMPE, ARIZONA, UNDER THE ACT OF AUGUST 24, 1912

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GENERAL SERIES      JUNE, 1945      NUMBER 56

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# College Calendar

1945-1946

## Fall Semester

Residence Halls Open.....	Sept. 15, Sat.
First Faculty Meeting.....	Sept. 17, Mon., 7:30 P.M.
Freshmen Week Events.....	Sept. 18, 19, 20, 21, 22.
First Freshmen Assembly.....	Sept. 18, Tues., 9:00 A.M.
Registration.....	Sept. 21, 22, Fri., Sat.
Instruction Begins.....	Sept. 24, Mon.
Last Day of Registration for Credit.....	Oct. 8, Mon.
Mid-semester Scholarship Reports Due.....	Nov. 16, Fri.
Thanksgiving Recess.....	Nov. 22, Thurs. to Nov. 25, Sun.
Christmas Vacation.....	Dec. 20, Thurs. to Jan. 1, Tues.
Final Examinations.....	Jan. 21, 22, 23, 24.

## Spring Semester

Residence Halls Open to New Students.....	Jan. 25, Fri.
Registration.....	Jan. 28, Mon.
Instruction Begins, Second Semester.....	Jan. 29, Tues.
Last Day of Registration for Credit.....	Feb. 11, Mon.
Mid-semester Scholarship Reports Due.....	Mar. 22, Fri.
Easter Vacation.....	Apr. 19, Fri. to Apr. 22, Mon.
Last Day for Filing Senior Scholarship Reports.....	May 11, Sat.
Last Day for Scholarship Reports, M.A. Candidates.....	May 11, Sat.
Last Meeting of Graduate Classes.....	May 18, Sat.
Baccalaureate Service.....	May 19, Sun.
Commencement Exercises.....	May 22, Wed.
Final Examinations.....	May 21, 22, 23, 24. Tues., Wed., Thurs., Fri.

## Summer Session

Summer Session Begins, Registration.....	June 3, Mon.
First Summer Term Ends.....	July 6, Sat.
Second Summer Term Begins, Registration.....	July 8, Mon.
Summer Session Ends.....	Aug. 10, Sat.

Note: Dates for vacations are both inclusive.

# Official Directory

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## Board of Regents of The University and State Colleges

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### Ex-Officio

SIDNEY P. OSBORN.....Governor of Arizona  
E. D. RING, B.A.....State Superintendent of Public Instruction

### Appointed

	TERM EXPIRES
DR. FLORENCE E. BECK.....	January, 1947
M. O. BEST.....	January, 1947
MRS. GARFIELD A. GOODWIN.....	January, 1947
LYNN M. LANEY, B.S., J.D.....	January, 1947
JACK B. MARTIN.....	January, 1947
WILLIAM W. STEVENSON, A.B., LL.B.....	January, 1947
MRS. JOSEPH MADISON GREER, B.A.....	January, 1949
CLARENCE E. HOUSTON, B.A., LL.B.....	January, 1949
W. R. ELLSWORTH.....	January, 1951
SAMUEL H. MORRIS, A.B., J.D.....	January, 1951
CLEON T. KNAPP, LL.B.....	January, 1953
JOHN M. SCOTT.....	January, 1953

### Officers of the Alumni Association

JOHN SANDIGE, SR., '14.....Phoenix  
President

WALTER MAXWELL, '38.....Phoenix  
Vice-President

MARY L. BUNTE, '40.....Tempe  
Secretary-Treasurer

# Officers of Administration

---

GRADY GAMMAGE, M.A., Ed.D., LL.D., President of the College  
J. O. GRIMES, M.A., Ph.D. - Dean of the College and Director  
of Summer Session and Extension  
HAROLD D. RICHARDSON, Ph.M., Ph.D., Registrar and Director  
of Graduate Division  
IRA D. PAYNE, M.A. . . . . Director of Teacher Training  
and Placement  
MILDRED B. SAYRE, Ph.M. . . . . Dean of Women  
H. W. BATCHELOR, M.S. . . . . Librarian  
\*GILBERT L. CADY, B.A. . . . . Business Secretary  
FLORENCE W. JOHANSON, R.N. . . . . Health Service  
RUTH R. REED, B.S. . . . . Director of Dining Hall

## Administrative Assistants

THOMAS JEROME COOKSON, B.A. . . . Assistant Librarian  
MRS. T. J. COOKSON . . . . Assistant Librarian  
MARY L. BUNTE, M.A. . . . Secretary to the President  
SIBYL MAY . . . . Business Office  
OSCAR D. BEVERLY, M.A. . . . Chief Accountant and Office  
Manager, Business Office  
E. J. HILKERT, C.P.A. . . . . Comptroller  
WILLIMINA SCHULTZ, M.A. . . . Assistant Registrar  
\*THOMAS B. LILICO, B.A. . . . Graduate Manager  
FENN HARRIS . . . . Supt. of Buildings and Grounds  
SALLIE DAVIS HAYDEN, B.A. . Head Resident, Matthews Hall  
MARGARET M. WALSH, B.A. . . Head Resident, West Hall  
THEO NEELY REDMAN, B.A. . . Head Resident, Dixie  
Gammage Hall  
BEULAH G. COSTLEY . . . . Head Resident, North Hall

# Officers of Instruction

1945-1946

- GRADY GAMMAGE, Ed.D., LL.D.** - - - President of the College  
B.A., M.A., LL.D., University of Arizona; Ed.D., New York University
- BESS BARKLEY, B.A.** - - - Assistant Professor of Music  
B.A., University of Arizona
- H. W. BATCHELOR, M.S.** - Assistant Professor of Library Science  
B.A., University of Oregon; B.S., M.S. in L.S., University of Illinois
- GEORGE M. BATEMAN, Ph.D.** - - - Professor of Chemistry  
Head of the Science Department  
B.A., Utah State Agricultural College; M.S., Ph.D., Cornell University
- ROBERT NEWTON BROWN, A.B.** - Teacher Training, Eighth Grade  
A.B., Colorado State College of Education
- ARNOLD BULLOCK, M.A.** - - - Instructor in Music  
Mus. B., Yale University; M.A., Arizona State College at Tempe
- MARY L. BUNTE, M.A.** - - - Instructor in Commerce  
B.A., Arizona State College at Flagstaff; M.A., Arizona State College at Tempe.
- SAMUEL BURKHARD, Ph.D.** - - - Professor of Education  
Head of the Department  
B.A., Goshen College; M.A., Columbia University; Ph.D., New York University
- A. R. BURTON, Ph.D., C.P.A.** - Associate Professor of Commerce  
B.S., M.S., Kansas State Teachers College; Ph.D., University of Nebraska; C.P.A., Arizona
- ESTHER A. CALLOWAY, M.A.** - - - Teacher Training,  
Library and English  
B.A., Colorado State Teachers College; M.A., University of Arizona
- FRANCES PERRY CASSITY, B.A.** - Teacher Training, Kindergarten  
B.A., Arizona State College, Tempe
- VERA A. CHASE, M.A.** - - - Teacher Training, Fourth Grade  
B.A., M.A., University of Southern California
- DWIGHT W. COOL, M.A.** - - - Teacher Training, Sixth Grade  
B.A., University of Colorado; M.A., Colorado State College of Education
- BYRN L. DARDEN, M.A.** - - - Teacher Training, Industrial Arts  
B.A., M.A., Arizona State College at Tempe
- MILES A. DRESKELL, M.A.** - - - Instructor in Music  
A.B., San Jose State College; B.M., Northwestern University; M.A., Columbia University
- L. A. EASTBURN, Ed.D.** - - - Supervisor, High School Teaching  
in Phoenix  
A.B., M.A., Drury College; Ed.D., Stanford University
- \*GEORGE W. EBEX, Ph.D.** - - Associate Professor of Education  
B.A., Stanford University; Ph.D., Teachers College, Columbia University

- ROWAN E. ELLIFF, M.A.** - Associate Professor of Home Economics  
B.A., Kansas State Teachers College, Pittsburg; M.A., University of Missouri
- LOLA ELLSWORTH, M.A.** - Assistant Professor of Home Economics  
B.S., Brigham Young University; M.A., Teachers College, Columbia University
- JOHN ODUS GRIMES, Ph.D.** - - - - - Professor of Psychology  
B.S., Ohio University; M.A., Ph.D., University of Michigan
- HERBERT GURNEE, Ph.D.** - - - Associate Professor of Psychology  
B.A., M.A., Wesleyan University; Ph.D., Harvard University
- HARRY B. HARELSON, M.MUS.** - - Associate Professor of Music  
Head of the Department  
B. Pub. Sch. Mus., M. Mus., Columbia School of Music
- GENEVIEVE HARGISS, M.M.E.** - - - Assistant Professor of Music  
B.M.E., B. Mus., M.M.E., University of Kansas
- TOM J. HARTER, M.F.A.** - - - - - Assistant Professor of Art  
B.A., Arizona State College at Tempe; M.F.A., University of Oregon
- E. J. HILKERT, M.A., C.P.A.** - Associate Professor of Commerce  
B.S. in B.A., M.A., University of Southern California; LL.B., University of Notre Dame; C.P.A., Arizona and California
- \*ARNO JEWETT, Ph.D.** - - - - - Assistant Professor of English  
B.S., M.S., Ph.D., University of Minnesota
- ETHEL JOHNSON, M.A.** - - - - - Teacher Training, First Grade  
B.S., Teachers College, Columbia University; M.A., Columbia University
- B. IRA JUDD, Ph.D.** - - - - - Professor of Agriculture  
Head of the Department  
B.S., M.S., Utah State Agricultural College; Ph.D., University of Nebraska
- MARGARET L. KLANN, A.M.** - - Instructor in Physical Education  
B.S. in Education, University of Illinois; M.A., Colorado State College of Education
- PAULA R. KLOSTER, M.A.** - - - - - Associate Professor of Art  
Head of the Department  
B.S., University of North Dakota; M.A., Stanford University
- RUDOLF H. LAVIK, M.A.** - - - - - Associate Professor  
of Physical Education, Head of the Department  
B.A., Concordia College; B.P.E., Y.M.C.A. College, Springfield, Mass.; M.A., University of Southern California
- JOAN A. LEVIS, M.A.** - - - - - Instructor in Physical Education  
B.A., Hunter College; M.A., New York University
- LOUISE B. LYND, B.S.** - - - - - Principal, Rural Training School  
B.S., Columbia University
- ROBERT B. LYON, M.S.** - - - - - Associate Professor of Music  
B.S., B. Mus., University of Illinois; M.S., University of Idaho
- H. M. MCKEMY, M.S.** - - - - - Superintendent of Grade Schools  
B.A., University of Arizona; M.S., University of Southern California
- \*\*THERESA MORAN, M.D.** - - - - - Special Lecturer  
in Health and Medical Technology  
M.D., Loyola University, Chicago

- MARTIN MORTENSEN, M.A.** - - - - - Assistant Professor  
of Botany and Agriculture  
B.A., Brigham Young University; M.A., University of Arizona
- NINA L. MURPHY, M.A.** - - - - - Associate Professor  
of Physical Education  
B.A., University of Arizona; M.A., University of Southern California
- \*LOUIS M. MYERS, Ph.D.** - - - - - Professor of English  
Head of the Department  
B.A., St. Stephens College; M.A., Columbia University; Ph.D., University of California
- LEWIS S. NEEB, M.A.** - - Associate Professor of Industrial Arts  
Head of the Department  
B.A., M.A., University of Arizona
- FOREST E. OSTRANDER, M.A.** - - Associate Professor of Biology  
and Agriculture  
B.A., B.S., Washington State College; M.S., University of Wisconsin
- IRA DAWSON PAYNE, M.A.** - - - - - Professor of Education  
B.A., M.A., Stanford University
- EDITH BLANCHE PILCHER, M.A.** - Associate Professor of English  
B.A., University of Kansas; M.A., Columbia University
- GEORGE PORTNOFF, Ph.D.** - - - - - Professor of Languages  
Head of the Department  
A.B., Kiev Gymnasium, Russia; A.M., Ph.D., Columbia University
- HAZEL HARVEY QUaid, M.A. in Mus. Ed.** - - Instructor in Piano  
B.A., Arizona State College at Tempe; M.A. in Mus. Ed., Northwestern University
- JESSIE M. RANNELS, Ph.D.** - - - - - Associate Professor  
of Home Economics, Head of the Department  
B.S., Iowa State College; M.S., Cornell University; Ph.D., University of Wisconsin
- THEO NEELY REDMAN, B.A.** - - Instructor in Physical Education  
B.A., Arizona State College at Tempe
- HAROLD D. RICHARDSON, Ph.D.** - - - - - Professor of Education  
Ph.B., Ph.M., University of Wisconsin; Ph.D., Northwestern University
- DOROTHY F. ROBINSON, M.A.** - - Teacher Training, Fifth Grade  
B.A., M.A., University of Southern California
- ELLA L. ROLL, M.A.** - - - - - Assistant Professor of Education  
B.A., M.A., Stanford University
- MILDRED B. SAYRE, Ph.M.** - - - - - Counseling  
B.S., Ph.M., University of Wisconsin
- DOROTHY C. SCHILLING, Ph.D.** - - - - - Professor of English  
Acting Head of the Department  
B.A., M.A., Ph.D., Stanford University
- WILLIMINA SCHULTZ, M.A.** - - - - - Instructor in Commerce  
B.A., M.A., Arizona State College at Tempe
- \*BERYL M. SIMPSON, M.A.** - - - Associate Professor of English  
and Dramatics  
B.A., University of West Virginia; M.A., Northwestern University
- H. CLAY SKINNER, Ph.D.** - - - - - Professor of Psychology  
Head of the Department  
B.S. in Ed., Ohio University; M.A., Ohio State University; Ph.D., New York University

- CLARENCE EDWARD SOUTHERN, M.A.** - - - Assistant Professor  
of English  
B.A., Evansville College; M.A., Stanford University
- HERBERT L. STAHNKE, Ph.D.** - - Associate Professor of Science  
A.A., La Grange College; S.B., University of Chicago; M.S., University  
of Arizona; Ph.D., Iowa State College
- EDWIN A. SWANSON, M.S.** - - Associate Professor of Commerce  
Head of the Department  
B.S., M.S., University of Southern California
- \*ARNOLD TILDEN, Ph.D.** - - Associate Professor of Social Studies  
B.A., M.A., DePauw University; Ph.D., University of Southern California
- DONALD R. VAN PETTEN, Ph.D.** - - - Assistant Professor  
of Social Studies  
B.A., Arizona State College at Tempe; M.S., University of Southern  
California; Ph.D., Stanford University
- MINNIE SEAVER WELLS, B.A.** - - - - -Teacher Training  
Second and Third Grades  
B.A., Arizona State College at Tempe
- FRA SAMUELS WEINACKER, M.A.** Supervisor, Elementary Teaching  
in Phoenix  
A.B., Iowa State Teachers College; M.A., University of Iowa
- \*CHARLES WEXLER, Ph.D.** - - - - - Professor of Mathematics  
Head of the Department  
B.S., M.S., Ph.D., Harvard University
- IRMA WILSON, Ph.D.** - - - - - Associate Professor of Spanish  
B.A., State University of Montana; M.A., Ph.D., Columbia University
- CLEOTA H. WOODALL, M.S.** - - - - - Instructor in Home Economics  
B.S., Iowa State College; M.S., University of Kentucky
- HOWARD PRESTON WOOLUM, M.A.** - - - - - Principal  
Campus Training School  
B.A., M.A., Colorado State Teachers College
- H. D. WORTHY, Ph.D.** - - - - - Associate Professor of Education  
B.A., Mississippi College; M.A., Peabody College; Ph.D., New York  
University
- RUFUS KAY WYLLYS, Ph.D., Litt.D.** - Professor of Social Studies  
Head of the Department  
B.A., M.A., University of Michigan; Ph.D., University of California;  
Litt.D., Hillsdale College

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\*On leave.

\*\*Medical Technology at St. Joseph's Hospital.

Seven positions vacated during the war have not been filled. These are not included above.

# The Institution

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## Purposes of the College

The College aims to serve the people of Arizona by providing an educational program that appropriately reflects the community interests of the people of the State as a whole as well as the needs and desires of the individual students who enroll. Institutional objectives that define and give direction to the educational program of the College are the result of the growth and evolution of the institution over a period of more than fifty years.

The Act of the Territorial Legislature, passed March 12, 1885, creating the Territorial Normal School, set forth its objectives as follows:

“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 (the term, “common schools,” is now quite generally used as an expression implying a general reference to both elementary and secondary schools); also, to give instruction in the mechanical arts and in husbandry and agricultural chemistry, in the fundamental law of the United States, and in what regards the rights and duties of citizens . . .”

The Act also set forth in the requirements for admission and elsewhere other important objectives as follows:

“Every applicant for admission shall undergo an examination in such manner as shall be prescribed by the Board, and if it shall appear that the applicant is not a person of good moral character, and will not make an apt and good teacher, such applicant shall be rejected. The Board of Education may, in their discretion, require any applicant for admission, to sign . . . a declaration of intention to follow the business of teaching . . . and provided further, that the pupil may be admitted without signing such declaration of intention on such terms as the Normal School Board may require or prescribe . . . shall exercise a watchful guardianship over the morals of the pupils . . ., but no religious or sectarian tests shall be applied . . .”

Thus, it may be observed, the founders of the institution set forth the following five objectives: (1) preparation of teachers, the chief purpose; (2) provision for a broad curriculum; (3) development of ethical character; (4) obligatory instruction in fields other than teaching; (5) training for good citizenship.

It is this set of broad purposes, so wisely stated by the founders of the institution, that has served to project the growth and development of the College. Of course, during the more than fifty years of progress, there have been certain changes in emphasis placed on the

various objectives. At the present time, institutional purposes and objectives may be set forth as follows:

Traditionally, and by legal definition, the College has for its first purpose the selection and preparation of teachers for the elementary and secondary schools of Arizona. The people of the State have a right to expect that their children in the public schools will be taught by teachers possessing high mentality, broad social-cultural background of general education, high ideals of citizenship, thorough knowledge of subject matter, high scholarship, objective and scientific point of view, professional training and spirit, proven skill in the art of teaching, culture and efficiency in social relations, wholesome personality, vigorous health, and sound character. The College aims to serve in the selection, development, and preparation of teachers of this type.

It is the purpose of the College to provide a basic program of general education. Provision for a broad social-cultural base is not only highly essential in teacher education, but also in educational programs for other professions. Objectives related to good citizenship, personal efficiency, aesthetic appreciation, general knowledge, and vigorous health are, after all, fundamental and basic in higher education. And since the College must provide a basic offering of general background courses as an inherent part of its teacher education program, it is able to serve efficiently and well students desiring basic preprofessional work in certain other fields. In fact, the College, through its regular program of general education, serves many other students whose expressed needs and desires are for preparation in fields other than teaching. The fields of agriculture, science, industrial arts, commerce, music, and home economics are representative examples.

The College accepts its responsibility for providing in-service help, guidance, and instruction for teachers. It also accepts its responsibility for cultural and educational leadership and service in the community. These professional and community services are provided through special evening courses, correspondence courses, summer sessions, educational conferences, dramatic performances, musical concerts, speech clinic services, published bulletins, radio services, placement services, alumni organizations, school visitation, and speaker and consultant service.

Through its carefully organized program of higher education—both general and specialized—and through its provision for these related extension services, Arizona State College at Tempe takes its place along with the other state institutions of higher learning in serving the people of Arizona.

## History

An act of the Thirteenth Legislative Assembly of the Territory of Arizona, approved March 12, 1885, made provision for the establishment at Tempe of a Normal School. The Normal began on February 8, 1886, with thirty-one in attendance. The first class of five members graduated in June, 1887. At that time the entire institution was housed in the northwest room of a single four-room one-story building. During the years which followed, the attendance gradually increased, and with the growing public interest, the course of instruction was expanded year by year, new buildings replaced the historical structure, and from time to time additions were made to the faculty personnel.

For many years it was found necessary to provide facilities for high school training preparatory to the two-year normal school course, but, by the year 1919, the growth of the high schools throughout the state had made it possible to eliminate the high school curriculum from the program of studies offered by the Normal School, and the entire attention of the faculty was devoted to the two-year normal school curriculum offered to high school graduates and leading to a diploma entitling the holder to teach in the elementary schools and the junior high schools of the state.

In 1922 the Tempe Normal School Alumni Association sponsored a movement to raise the grade of their Alma Mater to that of a standard Teachers College. After three years of public discussion, in January, 1925, a bill was presented to the Seventh State Legislature which was passed unanimously by that body and signed by Governor Geo. W. P. Hunt on March 7, 1925. By the provisions of this bill, the Tempe Normal School became Tempe State Teachers College, with the power to establish a four-year college curriculum, and the authority to confer upon its graduates the degree of Bachelor of Education.

An act of the Ninth Legislature changed the name of the college to read, Arizona State Teachers College at Tempe, and at the same time authorized the College to grant the degree of Bachelor of Arts in Education.

In March, 1937, an Act of the Thirteenth Legislature authorized the College to grant the advanced degree of Master of Arts in Education. This degree was conferred for the first time on May 31, 1938.

On March 9, 1945, a bill was passed by the State Legislature changing the name of the College to ARIZONA STATE COLLEGE AT TEMPE, and placing the management of all three state educational institutions under the control of one board called the Board

of Regents of the University and State Colleges of Arizona. Each institution retains its identity. The Board of Regents has broad powers. It may "establish curriculums and designate such courses at the several institutions as in its judgment will best serve the interests of the state, and award such degrees and diplomas upon the completion of such courses and curriculum requirements as it deems appropriate."

The College has had a gradual evolution from the narrow, limited curriculum of a Normal School to a college composed of fourteen strong departments each offering a major and minor. From the granting of a Normal School diploma, the college has progressed to where it now grants both the Bachelor of Arts and the Master of Arts degrees. From a single building there has evolved a campus containing twenty-eight fine buildings, and the original attendance of thirty-one has grown to a maximum of 1500 students.

## Recognition by Accrediting Agencies

Arizona State College is fully accredited by all the recognized agencies of evaluation in its field. The College ranks Class A in the American Association of Teachers Colleges, and in the North Central Association. It also has institutional membership in the American Council of Education. Students transferring from the College to other colleges and universities are given the same recognition in respect to transfer of credits, graduate study, and other privileges as are enjoyed by other universities and colleges of the country.

## The College Setting

### The Environment

*Location.* Arizona State College is located in the City of Tempe at the very center of the Salt River Valley, probably the finest irrigated district in the United States. Tempe is located on the Southern Pacific main line, which makes connections at Phoenix, the capital of the State, with the Santa Fe Railway. Four transcontinental highway systems, 60, 70, 80, 89, make the College easily accessible to all parts of the country, and there is regular bus service between Tempe and Phoenix, nine miles distant.

*Climate.* The climate is ideal during practically all of the college year. Snow is a novelty. Rain seldom mars plans for picnics or other outdoor activities, and high winds are infrequent. Cloudless skies and bright sunshine permit the work of physical education and athletics to be conducted outdoors throughout the entire year.

*Historical and Scenic Features.* Within easy reach by automobile are found Superstition Mountains, Apache Trail, Casa Grande Pre-historic Ruins, Pueblo Grande, Boyce Thompson Arboretum, Roosevelt and Coolidge dams, Canyon Lake, Hieroglyphic Canyon, and other places of historical and scenic interest. Papago Park, a national monument, lies just north of the city. A large natural amphitheater, a chain of lakes, Hole-in-the-Rock, and the Elfin Hills make this 2000-acre park an ideal spot for hiking and picnicking.

### The College Grounds

*The Campus.* There are 120 acres in the college grounds. The campus proper comprises 85 acres of fine, level land, and is arranged in a most attractive manner with its broad shady lawns, and a profusion of trees, shrubs, and flowers.

The twenty-eight modern buildings are distributed over the grounds in two groups, between which College Avenue runs the full length of the campus. In the distance one looks toward the mountains with their ever-changing lights, shadows, and wonderful coloring. Portions of the lawn are arranged for flood lighting, and are used by students for parties, receptions, and other social functions.

*Men's Athletic Field.* The men's athletic field is located just south of the men's gymnasium. The football field, the baseball diamond, and the track are maintained in excellent condition. Goodwin Stadium seats about 10,000 spectators. A modern lighting system permits the use of the field for games and pageants.

*Women's Athletic Field.* This field is located just south of the Moeur Activity Building. The field is well equipped for the various activities carried on by a modern physical education department.

*Recreational Areas.* In various parts of the campus are found areas and equipment for outdoor recreation. In these areas are found tennis courts of concrete, screened basketball courts, and fields for speedball, volleyball, women's baseball, archery, and golf.

*Model Farm.* The model farm of thirty-five acres is located one mile south of the campus. It is used for experimental and practical work in various phases of agriculture, including the preparation of teachers for 4-H and other club work.

### College Buildings

*Old Main.* The early traditions of the Territorial Normal School cluster about Old Main with its three stories of ivy-covered brick. It was erected in 1894, and is the oldest of the college buildings. For years it was the scene of all student activities. Now, it is devoted

chiefly to classrooms for academic work. It is located on the south side of the old quadrangle.

*Science Hall.* This building is located on the east side of the old quadrangle. The lecture rooms and laboratories for Chemistry and Physics are located on the first floor, and those for Biology and Agriculture occupy the second floor.

*The College Auditorium.* The Auditorium is located on the west side of the old quadrangle. It seats 1,000 persons. Its forty-foot stage and modern equipment permit the staging of dramatic work of high order.

*Arts Building.* This is a modern, fire-proof building of concrete construction faced with cream brick. It houses the departments of Art, Commerce, Home Economics, and Music. The College Book Store, the State Press, and student offices are located in the building.

*Ira D. Payne Training School.* This is a one-story structure of brick in the Spanish-Colonial style with open corridors or colonnades enclosing an attractive patio. The classrooms, furniture, apparatus, and equipment are in keeping with a modern, progressive school system.

*Matthews Library and Administration Building.* This is a modern, fire-proof, air-conditioned, brick building. The main floor and basement contain the offices of administration and several classrooms.

*The Dining Hall.* The dining hall is centrally located, and is conveniently reached from all dormitories. The building and its equipment are thoroughly modern and meet the highest sanitary and health standards. The dining hall is under the supervision of a graduate dietitian.

*Home Management House and Nursery School.* A fine, new building in which students majoring in Home Economics live for a part of a year.

*The Infirmary.* The infirmary is located in a quiet section on the east side of the campus. It is fully equipped to care for the needs of college students.

*The President's Residence.* This is a substantial, two-story, brick structure located on the east side of the campus.

*The Lyceum.* This is one of the attractive new buildings. It contains an auditorium, a stage, a lovely reception room, a kitchen, and a fine large basement room. It is used for meetings of small groups, receptions, and many other purposes.

*Men's Gymnasium.* The men's gymnasium is located on the north side of the athletic field. The floor space is ample for the regular gymnasium work, basketball, and other public events. A gallery is provided for spectators.

*B. B. Moeur Activity Building.* This is the center for the women's physical activities, and for the social life of the student body. The building is modernistic in structure. It was named in honor of the late Governor Moeur who served longer than any other man on our Board of Education.

*Alpha Hall.* This dormitory has a capacity of about sixty students. It is located on the east side of the campus.

*East Hall.* This dormitory houses 125 students. It is located at the center of the campus.

*Matthews Hall.* This hall was named after Carrie J. Matthews, the wife of the late president, Arthur J. Matthews. It accommodates about seventy-five students.

*North Hall.* This hall is located on the north side of the dormitory quadrangle. It accommodates about seventy students.

*South Hall.* South Hall accommodates about seventy students. It is located on the south side of the dormitory quadrangle.

*West Hall.* This is a large dormitory located on the west side of the dormitory quadrangle. It houses over 100 girls.

*Dixie Dees Gammage Hall.* This is a recently constructed, modern structure housing about ninety girls. The hall was named in honor of Dixie Dees Gammage, the wife of President Gammage.

*Goodwin Stadium.* The Stadium was named after the late Garfield Goodwin, an early graduate of the Territorial Normal School, and a member of the Board of Education for many years. The west unit has a seating capacity of over 4,000. A new unit located on the east side of the field increases the total seating capacity to about 10,000.

*Industrial Arts Building.* The Industrial Arts Building is the west wing of Goodwin Stadium. The building houses one of the best equipped shops in the Southwest for woodwork, metal work, and aviation.

*Heating Plant.* The plant is located centrally just south of the dining hall. It furnishes steam heat and hot water to all college buildings.

*New Men's Dormitories.* There are two, new, modern dormitories for men located just west of the Stadium and Industrial Arts Building.

*North Campus Cottage.* A brick home formerly occupied by President Emeritus Matthews. It is now used as a residence for a faculty member.

*South Campus Cottage.* A brick cottage now used as a residence for a faculty member.

*Farm Buildings.* A home and barns are located on the farm one mile south of the campus.

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# Entrance and Graduation Information

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## Admission to College

### General Requirements

*Personal Qualities.* Arizona State College desires to admit only persons possessing good character, and serious purpose. They should possess such degree of health that success in the vocation selected may be expected. In addition candidates for the professions should rank high in personality traits including native ability.

*Transcripts.* Before any student may register for work in the regular sessions of the college, and be admitted to regular standing and classification, his transcripts of high-school and college work done must be on file in the Registrar's Office. Students should request the high-school principal or college registrar to mail the transcript directly to the Registrar. Transcripts should be in the hands of the Registrar well in advance of the registration date. Transcripts are not required at the time of admission of those taking work in the summer session, in extension, or by correspondence.

*Physical Examination and X-ray.* A physical examination and an X-ray of the chest are required at entrance, and each year thereafter, of all students attending regular day classes of the regular session, excepting those who are registered for not more than five semester

hours of work. They are not required of summer session students, extension students, nor of students taking night and Saturday classes only. War conditions may prevent the administration of some of these tests this year.

*Aptitude Tests.* With the exception of graduate students, students who are registered for not more than five semester hours of work, and students taking work only at night or on Saturday, all students enrolled in the regular sessions of the college are required to take at entrance all aptitude tests. These tests are used for guidance purposes only.

### Admission of High-School Graduates

Graduates of an approved high school may be admitted to freshman standing in any of the curriculums offered by the college.

The units listed below are specified for admission. To meet these specifications, credits will be accepted for any subjects in these fields usually given in high schools. In addition credits will be accepted for general or unified courses, irrespective of the names or organization of the courses, provided the subject matter covered falls within the fields specified.

English .....	3 units
Social Studies .....	2 units
Mathematics (Arithmetic is accepted).....	1 unit
Science .....	1 unit

### Conditional Admission

*Graduates of Unapproved High Schools.* Graduates of unapproved high schools may be admitted provisionally upon passing satisfactorily the regular aptitude tests. Provisional admission will be removed on the successful completion of the first thirty semester hours of college work.

### Non-Graduates of High Schools

1. *High-School Seniors.* High-school seniors under 21 years of age with only a limited amount of work to complete in order to meet the requirements for the high-school diploma may be admitted under the following conditions:

- (a) The written recommendation of the high-school principal, and an affirmative vote of the Admissions and Standards Committee.

- (b) A plan for completing high-school work with the written approval of the high-school principal, and an affirmative vote of the Admissions and Standards Committee.
- (c) The completion of high-school graduation requirements prior to the admission to sophomore standing.

2. *Adult Civilians, and Veterans Over 18.* Civilians over 21 years of age, and veterans over 18 years of age who are not graduates of approved high schools may be admitted to undergraduate standing with conditions. Such students may be required to present transcripts of any and all previous high-school and college credits. Such students may become candidates for degrees after deficiencies in entrance requirements have been satisfactorily removed, as determined by the Admissions and Standards Committee.

### Admission with Advanced Standing

1. Students from approved institutions of higher education ordinarily will be given credit, hour for hour, for work done in these institutions in so far as it applies to the requirements of the curriculum pursued at Arizona State College. Advanced standing credit for educational experience in the armed services will be granted in terms of the policies and practices recommended for all colleges and universities by the American Council of Education.

2. Failure to report previous college attendance at the time of registration is sufficient cause for cancellation of the student's enrollment, of any credits earned, or both.

3. Students who are disqualified in another college because of scholarship, conduct, or any other reason will not be admitted until such disqualification is removed.

4. Experienced teachers who become candidates for the bachelor's degree may be permitted to substitute academic credits for a part, or, in some cases, all of the required directed teaching, but no academic credit is allowed for teaching experience.

5. Junior-college students planning to transfer to Arizona State College at the end of their first or second year should plan their junior-college courses to meet the requirements of the curriculum selected. Loss of time often results from failure to do this.

The maximum credit that can be accepted from a junior college is sixty-four semester hours or ninety-six quarter hours. In general, required upper division professional courses cannot be taken in junior colleges for credit. Ordinarily, courses transferred from junior colleges cannot be accepted as upper division credit.

## Admission to Summer Session

Excepting those who plan to complete the degree requirements in summer sessions only, students will be admitted to the summer session without presentation of transcripts.

## Admission of Graduate Students

See the section of the catalog headed, "The Graduate Division."

# Registration

*Registration Dates.* Students should register on the registration dates announced in the College calendar. Students registering late will be charged a late registration fee. Residence halls will be open to students on the dates given in the College calendar.

*Prerequisites to Registration.* Before registering in the regular sessions, all students seeking admission with regular standing and classification must present transcripts of high school or college work, or both, and take all required aptitude and physical examinations described under the heading, "Admission to College." In addition certain groups of students must meet special requirements given hereafter.

*Classification of Students.* Freshmen are those students who have acquired less than 30 semester hours of credit; sophomores, those with 30 or more semester hours, but less than 62; juniors, those with 62 or more, but less than 94; seniors, those with 94 or more; graduate students, those holding a bachelor's degree from Arizona State College at Tempe, or other recognized institutions.

*Curriculum Advisers.* Upon entering college each student must select, tentatively at least, a curriculum. Curriculum advisers are designated for each curriculum. The student's registration card must bear the signature of his curriculum adviser.

*Course Loads.* Students carrying twelve or more semester hours of work are classified as full-time students. The normal course loads of students vary from 15 to 17 semester hours. Students who wish to carry more than 17½ semester hours must petition the Admissions and Standards Committee. Students having a low scholarship record may be required to carry a light load. Students carrying a full-time school job will be asked to carry a light load unless their previous records in scholarship and on aptitude tests are high. During the semester in which a student is registered for student teaching, the load should not exceed 16 semester hours.

*Course Restrictions.* Freshmen may not register for courses numbered 200-299 without the recommendation of their advisers and the approval of the heads of the departments concerned and the Registrar. Courses numbered 300 and above are open to graduate students only.

*Freshmen Registration.* Freshmen registering for the first semester are expected to be present at all events scheduled for Freshman Week beginning at 9:00 A.M., Tuesday, on the date shown in the college calendar. Failure to attend any of these events may delay the student's registration, and will require the payment of the late fee for any examinations missed.

Each freshman is assigned a freshman-week adviser who gives the student general advice during freshman week only, and a curriculum adviser who advises him concerning his curriculum and schedule of studies and approves and signs his registration card. The curriculum adviser continues to counsel the student throughout his freshman year.

Freshmen entering college the second semester should report to the Registrar's Office not later than noon on the Friday preceding the date scheduled for the beginning of classes. Those who do not arrive in time to complete their registration and examinations as scheduled will be charged the late fees. No physical examinations are given on Saturday afternoon.

*Registration of Sophomores, Juniors, Seniors, and Graduates.* Sophomores, juniors, seniors, and graduate students will register on the dates indicated in the College calendar. The physical examination, X-ray, and aptitude tests described previously under the heading, "General Requirements," are required. New students should report to the Registrar's Office not later than noon on the Friday preceding the date set for the beginning of classes. A student who fails to complete his registration or examinations as scheduled during registration week will be charged the late fees.

*Auditors.* Students may register as auditors in one or more courses without credit with the approval of the Registrar and with the consent of the instructor involved. Courses audited count toward the student's load. Persons who wish to register as auditors only, will register in the same manner as regular students and pay the same fees. Those who wish to audit classes for short periods of time may obtain a visitor's permit from the Registrar. Usually visitors will pay a nominal fee after the first day of visitation.

*Late Registration.* Late registration fees are charged beginning the day class instruction begins. Ordinarily, students registering

during the second week of a semester are required to take less than the normal load. Registration for a given semester is closed on Monday of the third week. A student may not register for credit after this date.

*Incomplete Registration.* Registration is not complete until all fees have been paid and all required examinations have been taken. Failure to satisfy any of the admission or registration requirements is sufficient cause for dropping a student from all classes.

*Changes in Registration.* After a student's registration program card has been signed by his curriculum adviser, it cannot be changed. Programs should be carefully planned under the guidance of the curriculum adviser so that changes in registration will not be necessary. Changes may be made *as late as Wednesday of the second week* of the semester by means of a Drop-Add card. *After Wednesday of the second week of a semester, courses may not be added.* Drop-Add cards for changes in registration may be obtained at the Registrar's Office.

*Dropping Courses after Wednesday of the Second Week.* The courses for which a student is registered at the close of Wednesday of the second week of a semester constitute his official registration and semester load. A student may drop a course from his official registration any time prior to the beginning of the final examination period. To drop a course after Wednesday of the second week the student must obtain the permission of the Dean of the College, pay the fee of fifty cents at the Business Office, and present the receipt and the permit at the Registrar's Office. An official drop notice is sent to the instructors from the Registrar's Office after the permit has been filed. A final semester grade of Wp or We will be reported by the instructor for a course dropped after the first week of a semester.

*Withdrawal from College.* Students who find it necessary to withdraw from college should withdraw officially as follows: (1) Obtain a withdrawal card at the Business Office. (2) Secure the signatures of the Dean of the College, the Dean of Women (women students), the Head Resident of the dormitory, the Librarian, and the Registrar. (3) Obtain refund of breakage deposit or other fees from the Business Office.

Unless the student withdraws officially, he is regarded as registered in all courses and runs the risk of receiving E grades in all subjects at the end of the semester. If a student is unable personally to withdraw officially as prescribed above because of illness or other reason, he should notify the Registrar in writing without delay

and request that he be officially dropped and that his instructors be notified.

## Graduation Requirements and Degrees

*Degrees.* The College grants the degree of Bachelor of Arts in Education and the degree of Master of Arts in Education. The degree of Bachelor of Arts in Education is granted to students who complete satisfactorily the requirements of any one of the four-year curriculums offered by the College. The degree of Master of Arts in Education is granted to those who complete satisfactorily the fifth year of the secondary curriculum or a minimum of thirty semester hours of approved graduate work.

### Requirements for the B.A. Degree

*The Unit of Credit.* The semester-hour is the unit of credit. It represents one fifty-minute class exercise per week with two hours of outside preparation or the equivalent in laboratory work.

*Credit Requirements.* A total of 126 semester hours is required for graduation with the degree of Bachelor of Arts in Education.

*Curriculum and Course Requirements.* In addition to the semester-hour requirements, the candidate must meet all the course requirements of the particular curriculum selected. Alternative courses may not be substituted for required courses, nor may curriculum or course requirements for graduation under a particular curriculum be waived without the approval of the Admissions and Standards Committee.

*Scholarship Requirements.* In order that a student may be eligible for graduation, his cumulative scholarship index must be 1.75 or better for all work taken after September 1, 1941, or for all work taken while a student at this College.

*Residence Requirements.* A minimum of one year in residence as a regular student is required of every candidate for the bachelor's degree, and the final 12 semester hours immediately preceding graduation must be taken in residence. For purposes of record, a year in residence is defined as 30 semester hours of credit earned in on-campus courses offered by regular members of the teaching staff. The phrase, *in residence*, means in regular classes held on the campus. It has no reference to living in dormitories or in Tempe. Credit earned in extension or correspondence courses cannot be used to meet residence requirements. The 12 semester hours of final residence may be taken during a semester of the regular academic year

or during the summer terms. Exception to the residence regulation may be made by the Admissions and Standards Committee. Petitions for an exception must be made in writing and addressed to the Registrar.

*Application for Graduation and Teaching Certificates.* Students planning to graduate in January should pay the graduation fee and file their applications for graduation with the Registrar before registering for their final semester's work. Those planning to graduate in May or August should pay the graduation fee and file their applications for graduation with the Registrar before November 15. Application blanks are obtained in the Registrar's Office. Candidates who fail to pay the graduation fee and file applications at the times specified are required to pay the late fee, and may be scheduled for graduation at a later date. Upon filing an application for graduation, a final check on graduation requirements is made for each student by the Registrar's Office. A check sheet showing the remaining requirements for graduation under the curriculum designated in the application is furnished the student as a guide to his final semester's registration.

Applications for teaching certificates should be filed in the Registrar's Office at the time of filing applications for graduation. Blanks for this purpose may be obtained at the Registrar's Office.

*Graduation Fees.* The graduation fee is \$10.00 if paid on or before the dates specified in the preceding paragraph. After that date the fee is \$15.00. Five dollars of the regular graduation fee is for membership in the Alumni Association. If a student is granted permission to receive a degree in absentia, he shall pay an additional fee of \$7.50.

*Attendance at Commencement Exercises.* Candidates for degrees are required to be present at the commencement exercises in the prescribed academic costume. Exceptions to this rule will be made only in extreme cases, and upon petition to the President of the College. If the petition is granted, a fee of \$7.50 is charged for a degree taken in absentia.

*Financial Clearance.* Before a student may participate in the commencement exercises or receive his diploma he must obtain financial clearance at the Business Office. Financial clearance indicates that the regular fees, library, dining hall, and all other fees have been paid.

## Requirements for the Master's Degree

See the section of the catalog headed "The Graduate Division."

## The College Guidance Program

Excellent instruction is one of the chief responsibilities of a progressive college. Instruction is excellent just to the extent that it fits the abilities, interests, and personality traits of the students. The purpose of the guidance and counseling program of the College is to discover those traits possessed by each student in order that each one may undertake such a program of work as will best fit his individual needs, and will inspire him to complete it with genuine satisfaction, and with the highest degree of achievement possible for him.

On entering the College each student is given several aptitude tests. The results of these tests are used only in the counseling and guidance of students. The specific purposes of these tests are to discover the student's native ability or quickness of learning; his ability in reading, English, and arithmetic; and certain personality traits. Vocational and other tests are administered if the student desires them.

At the beginning of Freshman Week each freshman is given a freshman adviser, who meets him for at least one personal conference that week. In addition he meets the student with a few other freshmen in group conferences on Tuesday, Wednesday, and Thursday. The adviser counsels the student concerning the many educational and personal problems arising during Freshman Week. One important function of this adviser is to counsel the student concerning his choice of a curriculum. This choice must be made before freshman registration begins on Friday. At this time the work of the freshman adviser ceases. Thereafter, the student goes to his curriculum adviser for all counseling needed.

The curriculum adviser assists the student in making out his schedule of studies and signs his registration card. He continues to counsel the student throughout his college life. At the close of each quarter of each year he gives the student his grade card and counsels with him at that time and at various other times. The adviser becomes the student's professional counselor and his personal counselor also.

The counseling and guidance program for sophomores, juniors, and seniors is the same as for freshmen, except that they are assigned their curriculum advisers immediately on entering the College.

## Living Arrangements

*Dormitories.* There are five dormitories usually occupied by women. These are Matthews Hall, North Hall, South Hall, West Hall, and Dixie Dees Gammage Hall. There are four halls ordinarily occupied

by men. These are Alpha Hall, East Hall, and the two new halls located just west of Goodwin Stadium. Alpha Hall is now occupied by women.

*Dormitory Facilities.* All student rooms are provided with electric light, steam heat, city water, and are furnished with a study table, a dressing table, book rack, and chairs. Sleeping porches are used the year round. No student may sleep in his room without the permission of the college nurse. There is a laundry room in each dormitory furnished with ironing boards for the laundering of personal belongings.

*General Regulations.* No single college influence may contribute more to the development of the personality and character of a student than that of dormitory life. The dormitories are so equipped and managed as to secure the maximum values at a minimum cost. For this reason women are asked to live in dormitories. A parent who desires to have a daughter room outside the dormitories must make written request to the Dean of Women. Such permission is granted only under special circumstances. No cooking of any kind is permitted in students' rooms. Vocal or instrumental music may not be practiced in any of the dormitories. Arrangements for such practice may be made through the music department. If radios are used, they must be adjusted so as not to interfere with the rights of others. Young women may be absent from the dormitories overnight only with the written consent of their parents, which must be on file with the Dean of Women.

*Personal Equipment.* The following list is the minimum with which students should be equipped when entering a dormitory: blankets and comforts for a single bed, one white bedspread, six sheets, four pillow slips, four bath towels, four hand towels, dresser scarf, washable laundry bag, and a study lamp. All linens should be clearly marked with the name of the student.

*Room Reservations.* A room will be reserved when a deposit of \$5.00 is received by the Business Office. Refunds for cancellation of room reservation fee are not made after September 1st. Students may state their preference for dormitories, however it is necessary for the Dean of Women to make all assignments for the women. Each hall collects a social fee of \$3.00 from each resident at the beginning of the year. This fee may not be refunded.

*Care of Dormitories.* The College attempts to furnish comfortable and artistic living conditions for dormitory students. Students are expected to cooperate by keeping them so. Should any injury, beyond the usual wear, occur to the decorations and furniture of a room,

the cost of redecoration or repair will be charged to the occupants of the room.

*Off-Campus Housing.* Women students may room outside of dormitories only if approved by the Dean of Women. Men must obtain the approval of the Director of Men. All such rooms must be approved by the College, and both the student and the home owner must agree to cooperate in observing the College regulations.

## Fees, Deposits, and Expenses

*Definitions.* *Regular fees* are those paid by all students. *Special fees* are those paid by certain students only, and under the conditions indicated. *Deposits* are made to cover certain contingencies. All or part of the deposit may be returned depending upon the charges incurred by the student.

### Regular Fees

The following fees are paid by each student entering the college:

Student Activities Fee (per semester).....	\$24.00
Students carrying not more than five semester hours of work may pay the regular fee, or a fee of \$13.00 which gives no student activities' benefits.	
Library Fee (per semester).....	\$2.00
This fee pays only a small part of the replacements incidental to student use of the library.	
Breakage and Library Deposit.....	\$5.00
This deposit is made at the time of registration by all excepting extension students. It serves as security against damage to College property, loss of books, etc. Any unused part of the deposit will be returned to the student when he leaves the College.	
Test Fee (first semester only).....	\$0.50
This fee is paid on entering college by all excepting graduate students, extension students, and those undergraduates who are registered for five semester hours or less.	
X-ray Fee .....	\$1.00
Paid by all excepting students carrying five or less semester hours, and extension students.	
Infirmary Fee (per semester).....	\$1.00
Paid by all excepting students carrying five or less semester hours, and extension students. Such exempted students receive no infirmary privileges.	
Gymnasium Fee (per semester).....	\$0.75
Paid by all excepting students carrying five or less semester hours, and extension students.	
Mimeographing Fee (per semester).....	\$1.00
Pays part of mimeographed materials used by instructors for instructional purposes.	

## Special Fees and Deposits

Special fees are paid by certain students under the conditions given below.

### Non-resident Tuition Fee (per semester).....\$100.00

Students will be exempted from this fee only when satisfactory evidence is presented to show that they have met the requirements given below.

- (1) Minors must show that the supporting parents or guardians have been residents of Arizona for the preceding year at least. Arizona guardians cannot be appointed for the purpose of avoiding the fee. Residence does not begin until one year after the appointment of guardians.
- (2) Students over 21 years of age must show that they have been emancipated from their parents, and since emancipation have resided without change of residence for the preceding year at least in Arizona with the intent of making the state their home. Attendance at the college is not accepted as proof of residence.
- (3) Aliens who have their first naturalization papers must show residence for the preceding year at least.

Sworn statements are required. The making of false or misleading statements is sufficient cause for dismissal from the college. Students whose residence is in question will pay the fee, and petition the Admissions and Standards Committee for refunds.

### Vocational Rehabilitation Fees

Such fees will be charged as are approved jointly by the College and the Veterans' Administration

### Room Reservation Deposit.....\$5.00

A room will be reserved in one of the dormitories when the student sends a deposit of \$5.00 to the Business Office. When the student registers, this deposit is applied in payment of the breakage and library deposit.

### Transcript Fee

There is no charge for the first transcript. For each additional transcript there is a fee of \$1.00. Requests for transcripts should be in the hands of the Registrar one week in advance of the time needed.

### Auditor's Fees.....Same as regular students

A student registered as an auditor in any course will not receive credit under any circumstances. Students carrying a full load will not be permitted to audit additional courses, unless the overload is approved.

### Laboratory Fees.....See course descriptions

With few exceptions such fees are not returnable.

### Special Examination Fee.....\$1.00

When, because of absence, or for any reason, it becomes necessary for a student to request a special examination in any course, a fee of \$1.00 may be required for this special privilege.

### Graduation Fee .....\$10.00

See description under another section of the bulletin headed Graduation Requirements and Degrees.

### Cap and Gown Rental Fee.....\$1.75 to \$4.50

Bachelor's cap and gown for baccalaureate and commencement exercises, \$1.75. Master's cap and gown, \$2.25. Master's hood, \$2.25.

## Late Fees

### Late Registration .....\$5.00

All students registering on the date specified for the beginning of classes, or thereafter, pay this fee.

Late Aptitude Tests.....	\$0.50-\$2.00
Students taking the aptitude tests on the date specified for the beginning of classes, or thereafter, will be charged fifty cents for each test required.	
Late Physical Examination.....	\$3.00
This fee is charged beginning at noon of the last day scheduled for registration.	
Late X-ray .....	\$1.00 up
This fee is charged all students who take the X-ray on the date specified for the beginning of classes, making the total cost from \$2.00 up.	

Deposits

Deposits are required of those students wishing certain privileges or services. The deposits are returnable less any charges which may have been incurred during the term of the service being rendered.

Locker Key Deposit.....	\$1.00
Students pay the fee at the Business Office and present the receipt to the Superintendent of Buildings and Grounds to obtain locker keys.	

Laboratory Deposits .....	None
Deductions for materials destroyed or lost will be taken from the breakage deposit.	

General Expenses

Board and Room (per four-week month).....	\$37.50
The fee for a room in a dormitory and board at the dining hall is for a four-week month. The fee is payable monthly, in advance, on a date set by the Business Office. No refund will be made for vacations, absences over week ends, or absences due to disciplinary action. No student will be permitted to room in a dormitory unless he is carrying twelve semester hours of work, and boarding in the college dining hall.	

Board .....	\$31.00
Students rooming outside of dormitories may obtain board only, at this rate for a four-week month, payable in advance on a date set by the Business Office. Refunds are made on the same basis as for room and board.	

Room Charge, One in Room..... (extra per month)	\$5.00
This extra charge per month is made when one person is given the exclusive use of a double room. Ordinarily, two students share a room.	

Meal Tickets .....	\$5.00
This is for the accommodation of students not living in dormitories who wish to eat only one or two meals a day at the college dining hall.	

Meals for Guests.....regular rates per single meal

Textbooks .....	\$20.00 up
The outlay for books and stationery will probably vary from \$20.00 to \$30.00 per year. All books and supplies can be obtained at the College Book Store.	

*General Summary.* The following summary includes the fees and minimum expenses incurred by a student living in a dormitory for one college year:

Activities Fee (\$24.00 per semester).....	\$48.00
Library, Infirmary, X-ray, etc.....	12.00
Tuition (free to Arizona students).....	0.00
Books and stationery (approximately).....	25.00
Laboratory fees (approximately).....	5.00
Board and room (two semesters).....	337.50
	<hr/>
	\$427.50

## Payment And Refund Of Fees

### Payment of Fees

The payment of fees cannot be deferred. By regulation of the Board of Education based on a ruling of the Attorney General, registration and other college fees are payable on the day of registration.

### Method of Payment

Checks, drafts, and post office or express money orders should be made payable to the Arizona State College.

## Refunds

### Activities and Other Fees

Students officially withdrawing from the College before noon of Saturday of the first week of classes will be refunded the following fees less a \$5.00 charge for registration: The activities fee, the library fee, the infirmary fee, the gymnasium fee, and any unexpended portion of laboratory fees if approved by the head of the department concerned.

During the second week, one-half of these fees will be refunded, and one-fourth will be refunded during the third or fourth week. After the fourth week no refunds will be made.

### Out-of-State Tuition

Students who officially withdraw from the College before noon Saturday of the first week of any semester will be granted a refund of all the tuition fee. Those officially withdrawing during the second or third week will be granted a refund of \$75.00, and those withdrawing officially during the fourth, fifth, or sixth week will be granted a refund of \$50.00. After the sixth week, no refund will be made.



Commercial and vocational training is featured by many departments





# Regulations Affecting Students

## Marking System

*Undergraduate Scholarship Ratings.* Scholarship grades on the student's report card and on his permanent record card are indicated by the letters and explanations given below.

A, Highest.	D, Lowest passing.
B, Above average.	Cr., Credit, without definition.
C, Average.	E, Failure.
Wp., Withdrew, work passing.	We., Withdrew, work failing.

Inc., Incomplete, given and removed under conditions specified below.

*Incomplete.* A mark of Inc. is given only when a course is unfinished because of sickness or other conditions beyond the control of the student. Negligence or indifference are never accepted as reasons for giving an Inc. Incompletes must be removed in a manner prescribed by the instructor, not later than the middle of the following semester, unless an extension of time is granted by the instructor. If the Inc. is not removed, the instructor will report a mark of Wp or We.

*Marks of E.* Students receiving marks of E must repeat the course in the regular class if they desire credit. Both the E and the new mark remain as a part of the student's permanent record.

*Mark of Wp.* The mark of Wp is given whenever a course is dropped and the instructor rates the student's work as passing.

*Mark of We.* The mark, We, is given if the instructor rates the student's work as failing at the time of withdrawal.

*Change of Grade.* A grade once reported to the Registrar's Office may be changed only if the faculty member certifies in writing that a clerical error has been made.

*Grade Points.* For the purpose of computing the scholarship index, grade points are assigned to each of the grades as follows: A, 4 points for each semester hour; B, 3 points; C, 2 points; D, 1 point; E, 0 point; and We, 0 point.

*Scholarship Index.* The scholarship index is obtained by dividing the total number of grade points earned by the number of semester hours in the student's course load. Courses in which marks of Wp

and Inc. are given are not included in determining the number of semester hours in the course load, but courses in which the mark, We, is given are included in determining the number of semester hours in the course load.

*Low Scholarship List.* All students, who, at any grading period, have scholarship indices so low as to indicate possible inability to meet the college standard of 1.75 for all work done in college, are placed in the Low Scholarship List. Conferences with these students are held, and letters may be written to their parents in order to enlist their cooperation in improving the work.

*Probation List.* All students, who, at the mid-semester or at the close of any semester, fail to receive passing marks in fifty percent of the semester hours for which they are registered on the second Monday of a given semester are placed on the probation list. In addition, all students, even though passing in more than fifty percent of their work, who fail to receive an average scholarship index of 1.00, are placed on the probation list.

*Disqualification.* All students whose names are on the probation list at the close of any semester are disqualified for the next succeeding semester. Students disqualified at the close of the second semester are not eligible to attend summer session or the following semester. Where mitigating circumstances are deemed sufficient, a student may be reinstated by a vote of the Reinstatement Committee. Any disqualified student has a right to be heard by this committee after making written application to the Dean of the College.

*Reports to Students.* Each student receives a report at the mid-semester and at the close of each semester showing his standing in each course taken. These reports are handed to the student by his adviser during a conference held for the purpose of giving guidance to the student. The mid-semester report is given in order that the student may be advised of his progress, but only the final mark for the semester is entered on the student's permanent record card.

*Reports to Parents.* A duplicate of the student's report card showing his standing in each class is mailed to the parent at the close of each semester. A copy of the mid-semester report will be mailed to any parent who sends a self-addressed envelope to the Registrar's Office.

## Attendance

The only penalties for absence from classes are those the student brings upon himself because of the instruction missed. The instructor will drop a student from class, and will send a drop card to the

Registrar's Office whenever, in his opinion, the student has missed sufficient work that continuation in the course seems to be of questionable value to the student or to the class.

No excuses for absence from class are granted either by the administration or by instructors. The student alone assumes full responsibility for all absences. Instructors will permit students to make up tests and other work missed only when the absence was from a cause beyond the control of the student or on account of activities assigned by the College. The instructor is the sole judge of the validity of the reasons given for absence.

## Conduct of Students

It is the policy of the College to give students the largest degree of liberty consistent with good work and orderly conduct. Both within and without the College, students are expected to show such respect for good order, morality, personal honor, and the rights of others as good citizenship demands. Failure in these matters or neglect of academic duties will be considered sufficient cause for removal from the College.

The authority of the College is exercised over all students individually and over all student groups or organizations bearing the name of the College, or representing or purporting to represent the College in any student enterprises, to the extent necessary to safeguard the good name and well-being of the College. Any proposed enterprises by such students or organizations must receive the official sanction of the College before announcements are made of such enterprises.

The use or possession of intoxicating liquors of any kind whatsoever is prohibited on the campus, at all social events wherever held, or at any other event where such use may reflect on the good name and reputation of the College.

The College assumes that the act of registering as a student implies full acceptance of these standards of conduct.

# Assistance to Students

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## Loan Funds and Foundations

The College is anxious to be of service in assisting worthy students in every way possible. A number of organizations have loan funds for this purpose. The College keeps a list of these in the office of the Dean of the College and will lend all aid possible to students who desire loans.

*Alumni Endowment Fund.* Loans are made to second semester seniors based on need, scholarship, and character. The maximum size of the loan is \$50.00. The loan note bears 4% interest until the date of maturity; thereafter, the rate is 8%.

*D. A. R. Loan Fund.* The Charles Trumbull Hayden chapter of the Daughters of the American Revolution has established a fund which is available for the use of responsible and worthy students during the entire year immediately preceding their graduation.

*Arizona Federation of Women's Clubs Loan Fund.* Juniors and seniors may borrow \$100.00 or more from this fund at a low rate of interest.

*Methodist Loan Fund.* Methodist students attending Arizona State College may borrow limited sums of money in their sophomore, junior, or senior year.

*Harold V. Smith Educational Fund, Inc.* Loans are made to deserving students, between the ages of 18 to 25, based on integrity, intelligence, character, competency, and aptitude. Loans are made only to students whose support depends on their own labor in whole or in part. The maximum loan for the school year is \$300.00. The rate of interest is 4%.

*W. K. Kellogg Foundation Loan Fund.* Loans are made in unlimited amounts to students in medical technology, either in their clinical or the pre-clinical years of their courses. The interest rate is not to exceed 2½%.

*Applications.* From year to year other loan funds are available. Students interested in loans should make application at the office of the Dean of the College.

## Honors and Awards

*Accounting Award.* A recognition award given in the commerce department to the graduating senior who has the best scholarship record in the accounting courses.

*Association of Childhood Education Award.* An award of a significant contemporary book to the outstanding junior student in the field of education for young children.

*Commerce Award.* The Commerce Department presents annually a trophy to a graduating senior for high scholarship, personality, and service.

*The Dunbar Award.* A gold key is awarded the colored graduating senior with the highest cumulative index for at least sixty semester hours of work taken at Tempe.

*The Fred M. Jahn Award.* An award of fifteen dollars presented annually to a student doing outstanding work in journalism.

*The Gibbons Leadership Awards.* Each year, Mr. M. L. Gibbons of Mesa offers two cash prizes of twenty-five dollars each. These are awarded to a man and a woman who stand highest on a scale, as rated by a selected committee of faculty members, on the basis of character, leadership, scholarship, and promise of future contributions to society.

*Graduation Honors.* Two types of honors are awarded at commencement time to students ranking high in scholarship. The honor, "With Distinction," is given to those whose index of scholarship, for all work taken at the College, is from 3.00 to 3.49 points. "With High Distinction" is given those whose index is from 3.50 to 4.00.

*Harvard Club Award.* A book or set of books given each year by the Arizona Harvard Club for excellence in some field of study designated by the donor.

*Home Economics Awards.* Two awards, usually books, are given annually by the Home Economics department and Beta Chi to an outstanding senior and an outstanding sophomore for achievement in Home Economics and high general scholarship.

*Kappa Delta Pi Award.* An award of twenty-five dollars is made annually by Kappa Delta Pi, a national honor society in education, to the student obtaining the highest cumulative index for all courses taken in the freshman and sophomore years at Tempe. The minimum number of hours is sixty.

*Kappa Delta Pi Pin.* This award is made to a graduating senior who attains the highest cumulative index for the junior and senior years under the same conditions prescribed for Kappa Delta Pi award.

*The Moeur Medal.* The Moeur medal and pin are awarded each year by Mrs. B. B. Moeur, of Tempe, in memory of her husband, the late Dr. B. B. Moeur. The medal is awarded to the graduate of one of the teacher-education curriculums who attains the highest standing in academic work during the four years immediately preceding graduation.

*The Moeur Pin.* The Moeur pin is awarded to the graduate ranking second under the conditions prescribed for awarding the Moeur medal.

*Pasteur Scientific Award.* An award of the Handbook in Chemistry is given to a freshman outstanding for achievement in general scholarship and in freshman chemistry.

*Pi Omega Pi Award.* Alpha Iota Chapter of Pi Omega Pi presents a recognition award to the graduating senior selected as the most outstanding prospective commercial teacher.

*The Pleiades Freshman Award* is presented at the close of each year to the most outstanding woman in the freshman class.

*The Pleiades Plaque.* This plaque is awarded at the end of each semester by Pleiades to the hall having the highest, collective undergraduate scholarship index. Off-campus men and off-campus women are considered as two of the groups. The group winning it three times in succession retains the plaque.

*The Robert R. Krause Award.* An award of twenty-five dollars is given to the student ranking highest in a comprehensive examination in the Biological and Chemical Sciences. The examination is held on the last Saturday of April annually.

*Secretarial Award.* A recognition award given in the commerce department to the outstanding student of the year in secretarial courses.

*Theta Chi Epsilon Award.* This award, usually a book on fine arts, is given annually to a senior student for excellence in scholarship and Art achievement.

*West Hall Award.* A book is awarded to the resident of West Hall for outstanding achievement in scholarship, and service to the hall and to the College for four years.

*The Will H. Robinson Award.* An award of twenty-five dollars, in honor of Will H. Robinson, is given, at the beginning of the second semester annually to a freshman student. The award is based on high scholarship for the first semester taking into consideration the number of hours the student gives to self-support.

## Scholarships and Fellowships

*Alpha Kappa Alpha Scholarship.* Alpha Sigma Chapter of Alpha Kappa Alpha Sorority presents annually a scholarship of \$50.00 to an outstanding student of the Carver High School.

*Alumni Scholarships.* Four fifty-dollar scholarships are awarded annually at the beginning of the senior year to students who are outstanding in ability and service to the college.

*American Legion Scholarships.* Ten scholarships are given to sons of deceased veterans of World War I and II. Selections are made from the United States at large by the National Scholarship Committee of the Legion. The awards are \$400.00 for the first year, and \$100.00 for three months of actual attendance thereafter.

*Arthur Emery Harvey Scholarship in Applied Music.* A scholarship in applied piano is given each year by Hazel Harvey Quaid to the freshman who stands highest in piano sight-reading, repertoire and general musicianship. Examinations are given during freshman week.

*A. W. S. Scholarship.* Associated Women Students offer a one hundred dollar scholarship to a high school senior girl. Outstanding scholarship, personality, and participation in extra-curricular activities are the essential qualifications.

*The C. M. Paddock Fellowship* is awarded each year to a graduate selected under conditions to be determined by the administration of the College.

*Community Concerts Association Scholarships in Music.* A scholarship in voice and one in piano will be awarded annually to juniors and seniors who have spent the first two years of their college study at Arizona State College. Such students must give evidence of real musical ability, sincerity of purpose, and need of financial assistance. Each scholarship is valued at \$54.00 per year.

*Delta Sigma Theta Scholarship.* Beta Theta Chapter of Delta Sigma Theta Sorority presents each year to the girl student of Carver High School who ranks highest in scholarship an award of \$50.00.

*Freshman Scholarships.* Several scholarships are awarded by the College each year to outstanding high-school seniors. These scholarships pay the registration, and all other regular fees for the freshman year excepting fees for private lessons. These scholarships are valued from \$55.00 to \$70.00 per year. Write to the Dean of the College for information.

*W. K. Kellogg Foundation Scholarship.* Students in the last or clinical year (within one year of active service) of the medical technology course may be awarded scholarships after they have completed at least 10 weeks of the work of this year. The scholarships vary in amount. At present the amount is \$75.00. A given student is eligible both for a scholarship and for a Kellogg loan.

## Placement Service

### Placement Of Teachers

*Purpose.* The Placement Bureau of the College is maintained to assist graduating students in securing suitable teaching positions, and to help promote successful Tempe teachers in the field. It seeks at the same time to serve the best interests of the superintendents, principals, and school trustees of the state who desire to secure teachers adapted to the peculiar needs of their particular schools. Every effort is made to place all graduates in positions suitable to their preparation and ability, but the Placement Bureau does not guarantee the placement of graduates.

*Enrollment.* All graduating students enroll with the Placement Bureau, filling out the appropriate blanks and receiving full information and instructions relative to securing a position. Complete records are kept on file in the Placement Office. Enrollment must be renewed each year if help is desired after graduation. These records consist of recommendations from faculty members who are familiar with the student's academic work, reports of supervisors and critics on the quality of work done in directed teaching, and scholarship ratings. The record also includes personality ratings and a photograph. Copies of these records are sent out upon application to superintendents, principals, or trustees, or they can be examined and reviewed by them when they visit the Placement Office.

*Interviews.* Superintendents usually prefer to select their teachers after personal interviews, and by actually seeing them at work in their classrooms. Many take advantage of the opportunity to visit the training schools and observe the performance of prospective teachers.

*Write for Information.* Requests for teachers to fill positions, reports of vacancies, and all other correspondence relative to placement should be addressed to I. D. Payne, Director of Placement.

### Placement In Business

The Department of Commerce maintains a bureau of employment for non-teaching positions, under the direction of Mr. E. J. Hilkert. Students who desire the assistance of the bureau must make both written and personal applications. References and recommendations for all enrollees are collected. Qualified students are introduced to prospective employers. The bureau offers advice with information about vocations.

## Student Employment

A number of positions on the campus are assigned each year to students who by this means are enabled to earn part or all of their expenses for board and room. This work includes care of buildings, hall work, care of linen, library and dining hall service, shorthand, typing, filing, and general office duties. It is customary for a student accepting such employment to pay the dormitory fee for the first month in advance. The student employee is then paid by check at the end of each month. Students desiring employment will apply to the Student Employment Office for blank forms on which to make application.

Some criteria used for the selection of applicants for student employment are as follows:

1. Evidence of all-round worthy citizenship and character.
2. Ability to do college work of average grade or better.
3. Special ability in some particular field.
4. Evidence of leadership and vocational success.
5. Ability to do well such work as may be assigned.
6. Evidence of genuine economic need.
7. Preference is given to residents of Arizona.

*Students carrying a full-time job* will be asked to carry less than the regular load of 16 hours of college work unless their previous scholastic records and their aptitude tests are sufficiently high to warrant it.

## Services for War Veterans

Arizona State College is anxious to adjust the resources of the College to meet the needs of those returning from military service. An advisory committee of four faculty members will assist veterans in every way possible.

This committee is prepared to give information concerning the procedures for obtaining aid provided by the federal government under the Rehabilitation Law or the G. I. Bill of Rights. It is also prepared to counsel with veterans concerning their life work, to give vocational aptitude tests, and to help them work out their programs of studies. No matter what the type of problem, this committee stands ready to serve.

Veterans will find many types of courses offered including those in preparation for teaching, business, law, medicine, dentistry, nursing, social welfare, and intensive technical and semi-professional courses leading to trades.

Veterans are given credit for military experience, and for special training while in service based upon the recommendation of the American Council on Education. Those who have not graduated from high school may be admitted to college with conditions.

## Student Health Service

*Physical Examination and X-rays.* Before registering for the first semester attended each year, a physical and an X-ray examination are required of all students excepting those taking five or less semester hours of college work, those taking work only on Saturdays or in night classes, and extension students. These examinations include the general physical, tuberculosis, and other special examinations. A physical examination followed by conferences with the College nurse may be required prior to beginning directed teaching or at any other time deemed necessary. Students who fail to meet certain health standards may be denied admission to the College or to directed teaching. War conditions may be such that some of these examinations cannot be given.

*Dispensary and Infirmary Treatment.* Dispensary and medical services are furnished students as indicated below:

- (1) Both campus and off-campus students who have paid the infirmary fee are entitled to the student health service.
- (2) In ordinary cases of minor illness, students will generally be cared for in the College infirmary, and the services of a

competent physician will be furnished upon the order of the College nurse only.

- (3) In case of serious or protracted illness, free medical attention will be furnished in the infirmary for the first week only of such illness, after which period the College will no longer assume financial responsibility for the services of a physician or nurse.
- (4) The College will not assume financial responsibility for any surgical operation.
- (5) The College will not assume financial responsibility for medical services of any kind unless authorized in advance by the College nurse.

*Absence Due To Illness.* Before leaving the campus because of illness students are to report to the student health service. Upon their return they are to report for approval to re-enter classes. In all cases diagnosed as contagious, the student, on his return to the College, will present to the College nurse a written statement from the attending physician.

*Illness In Dormitories.* Illness in dormitories must be reported to the head resident and to the College nurse at once. Students failing to report such illness may be asked to leave the dormitory since such failure may have serious consequences both for the patient and for other students.

*Contagious Diseases.* Illness diagnosed as contagious cannot be treated in the infirmary. Such cases will be diagnosed by a college physician without cost to the student, but immediately thereafter the student or his family must make arrangements for his care in a hospital or at home.

# Student Group Activities

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## Student Government

*Associated Students.* Every student of the campus is automatically a member of the Associated Student Body. By encouraging student participation in the government of the college, the Board of Education, the President, and the faculty challenge every student to accept his responsibility for stimulating and regulating student activities, and customs, and for promoting the intellectual, moral, and social welfare of all students in a truly democratic manner. A Council selected from the student organization and elected by the student body functions as the executive body of the Associated Students.

*Associated Women Students.* Every girl registered in the College is a member of the Associated Women Students. The object of this organization is to promote the special activities of interest to the women students. A governing body called the Activities Council is composed of duly elected officers, the vice-presidents of the women's dormitories, and a representative from each women's society on campus.

*Residence Council.* Residence Council of Women's Halls is made up of the president of each hall and one selected representative with the Dean of Women as an ex-officio member.

## Student Organizations

*Types of Organizations.* The professional and social inclinations of the students find expression in a number of organizations of widely varying composition and objectives. Among these are scientific societies, honorary fraternities and sororities, departmental organizations, service organizations, and organizations whose purposes are purely social or recreational. A number of these organizations are national while others are local.

*Scholastic Requirements.* In order to be eligible for admission to membership in any student organization, the student must have a scholarship index of 2.00 or better in all courses carried for the quarter or semester immediately preceding. Any member of such an organization whose quarterly semester report shows a scholarship index of less than 2.00 shall be suspended from active work in the organization for one-half of a semester.

## Service Organizations

There are two service organizations which recognize achievement in all-around campus life.

*The Blue Key.* This is a national honorary fraternity composed of men students of the junior and senior class who rank high in leadership in various fields of college activity.

*The Pleiades.* An honorary women's service organization composed of twelve women selected from the junior and senior classes on the basis of leadership, achievement, integrity, dependability, personality, and scholarship.

## Departmental and Interest Organizations

*The "A" Club.* An honorary group through which the W.A.A. gives recognition to all college women who have earned 1,000 points in dance and sports and who have desirable standards of sportsmanship, leadership, and service.

*The Aggie Club.* Open to all majors and minors in agriculture, promotes the interest of agricultural education.

*Alpha Mu Gamma.* A national honorary fraternity for students of foreign languages.

*Alpha Psi Omega.* A national honorary dramatic society open to those who acquire twenty points in dramatics.

*The Association of Childhood Education.* The student branch of the international organization, promotes the interests of kindergarten-primary education.

*Beta Chi.* Composed of girls whose major interest is in home economics. This organization is affiliated with the National Home Economics Association and with the state organizations.

*Collegiate 4-H Leaders Club.* Open to students preparing for leadership in 4-H clubs. This is said to be the only club of its kind in the United States.

*The Commerce Club.* An organization of students majoring in Commerce. The club serves those who plan to teach and those who intend to enter business.

*Gamma Theta Upsilon.* A national honorary professional geographic fraternity.

*The Geographic Society.* An organization of students who excel in geography, general scholarship, and character.

*The International Relations Club.* An organization of students majoring in the social studies. Its purpose is to create an interest in national and international affairs.

*Kappa Delta Pi.* A national honorary society fostering high professional and scholastic standards, and recognizing outstanding service in the field of education.

*La Liga Panamericana.* A club which promotes friendly relations among those interested in things Spanish.

*Lambda Delta Lambda.* A national honor society for those interested in the teaching of science. Its aim is to promote interest in the study of chemistry and physics in teacher's colleges.

*Los Conquistadores.* Has as its purpose the promotion of the welfare of the Spanish-speaking students on the campus. Membership is open only to those of Spanish lineage.

*Mu Rho Alpha.* A professional musical fraternity, aims to recognize and develop musical ability, to encourage an appreciation of good music, and to maintain high scholarship.

*The Pasteur Scientific Society.* Affords opportunities for student activity in the biological and physical sciences.

*Pi Gamma Mu.* A national honorary social science fraternity recognizing scholastic attainment in the social sciences.

*Pi Kappa Delta.* National honorary forensic society, is open to those who make outstanding records in inter-collegiate debate and oratory.

*Pi Omega Pi.* A national honor society for commerce majors interested in becoming teachers of commercial subjects. It aims to create and promote interest and scholarship in commerce.

*Sigma Pi Sigma.* A local honorary accounting society, stressing originality, scholarship, and sociability.

*Sigma Tau Delta.* A national honorary society restricted to English majors of high scholastic rating. Every member is expected to contribute original work in some field of creative writing.

*Theta Chi Epsilon.* An honorary art fraternity, aims to develop a genuine appreciation for art and enrich the aesthetic experiences of the members.

*The Women's Athletic Association.* An organization under the sponsorship of the Department of Physical Education for Women. It cooperates in furthering opportunities for participation in sports and dance activities.

## Sororities and Fraternities

These organizations aim to promote high standards of manhood and womanhood on the campus, to foster a spirit of fellowship and cooperation, and to further opportunities for the development of social competence. They seek to maintain a spirit of loyalty to the various traditions of the College. In order to be invited to membership, a student must have a scholarship index of 2.00 or better at the close of the quarter preceding the date of invitation.

*Sororities.* The following local Greek letter societies carry on the traditional objectives of each group:

<i>Chi Sigma</i>	<i>Phi Beta Epsilon</i>	<i>Pi Alpha Gamma</i>
<i>Kappa Theta</i>	<i>Phi Lambda Nu</i>	<i>Zeta Sigma</i>
<i>Kappa Kappa Alpha</i>	<i>Philomathian</i>	

*Fraternities.* The following local Greek letter fraternities carry on the traditional objectives of each group:

<i>Delta Kappa</i>	<i>Mu Sigma Chi</i>	<i>Tau Sigma Phi</i>
<i>Lambda Phi Sigma</i>	<i>Pi Delta Sigma</i>	

*Inter-Sorority Council.* The Inter-Sorority Council, composed of the president and a sponsor of each sorority with the Dean of Women, operates for the mutual benefit of all societies.

*Inter-Fraternity Council.* This council is composed of the presidents of all fraternities and the Dean of the College. Fraternity sponsors meet with the student organization as advisers.

## Religious Organizations

*The Religious Council.* The Religious Council is composed of representative students from all denominations. This body acts as sponsor and promoter of various religious programs, and seeks to foster religious living on the campus.

*Denominational Organizations.* Opportunity for participation in religious activities is offered through the various organizations for college students meeting on the campus and in various local churches, such as the Newman Club, Catholic; Wesley Foundation, Methodist; the Pilgrim Fellowship, Congregational; the Deseret Club, Latter Day Saints; and similar groups in the Baptist Church, Christian Church, Church of God, and Episcopal Church.

## Special Group Activities

### Physical Activities

The College will conduct no intercollegiate athletic events for the duration of the war. In peace time the College participates in intercollegiate events in football, baseball, track, and field. Much emphasis is placed upon interclass and intergroup contests, tennis, and other group activities.

Both the men's athletic field and the women's field afford excellent facilities for the various types of sports, games and athletic events conducted by the College. Goodwin Field is equipped with a system of flood lighting permitting football and track events to be held at night. The Men's Gymnasium cares for all men's indoor events, while the Women's Activity Building serves a double purpose. It is the center for the social activities of the College, and for all women's indoor physical activities.

### Speech and Dramatics

*Debate.* The College offers an extensive program of intramural and intercollegiate debating. The division of speech arts is affiliated with three forensic leagues—the Arizona Speech Arts League, which sponsors a tournament among five colleges in the state; the Western Association of Teachers of Speech, which sponsors a fall tournament for all western states; and the Pi Kappa Delta league which holds several tournaments, most of them in the coast states. Students who become members of winning teams are eligible for membership in Pi Kappa Delta, national honorary forensic society.

*Oratory.* Campus orators are given opportunity to compete in a number of contests, local, state, and interstate. In the state contest three cash prizes aggregating \$100, are offered for the best original orations on International Peace. Representatives of the college in oratory are sent to all state and interstate speech tournaments.

*Dramatics.* The work in dramatics is designed to accomplish the following objectives:

1. To develop talent through participation in plays, recitals, and production.
2. To fulfill the social and therapeutic functions of dramatics in cases of defective personality.
3. To improve audience standards of entertainment.

Active participation in dramatics may lead to membership in Alpha Psi Omega, national dramatic fraternity.

## Music Activities

Opportunities are given for the expression of musical talent in recitals by the students of voice, piano, violin, brass and woodwind instruments; by the glee clubs; and by the orchestra. College credit is given for regular work in these organizations. During the year concerts are presented on the campus.

## Student Publications

*The State Press.* Under the auspices of the Associated Students, there is published, weekly throughout the year, a five-column, four-page newspaper. It serves as a record of current events of campus life and is used as a laboratory for students in classes in journalism. The journalism instructor serves as adviser. The editor and the business manager are appointed by the Publications Board. Subscription to the publication is included in the activities fee.

*Life at Arizona State.* Life at Arizona State, a pictorial magazine, has supplanted the traditional annual. It is a sixty-page publication profusely illustrated, and serves adequately to preserve the memories and strengthen the traditions of the College from year to year. Financial security for the student project is assured by the inclusion of the subscription price in the activities fee. The book is published by student editors and staff under the supervision of the division of journalism.

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# General Information

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## Alumni Association

*Membership.* The Alumni Association was organized under the leadership of President E. L. Storment, in June, 1894. There are now 6,004 active members including the class of 1944. All students become active members when they pay their graduation fee. All students who have attended the College at least one semester are listed as associate members.

*Endowment Fund.* Under the leadership of the late Clarence M. Paddock, '03, and Leona M. Haulot, '02, the Association raised an endowment fund of \$10,000.00 for the assistance of worthy students. The fund has now increased to more than \$20,000.00, and more than 400 students have received aid from the fund. Loans are made only to seniors in the second semester.

*Alumni Scholarships.* The Association offers four scholarships each year to outstanding students. See the description under "Awards and Prizes."

*Alumni Induction Ceremony.* This ceremony is held annually on the Monday night preceding the Commencement exercises. Its purpose is to get the seniors acquainted with some of the alumni, and to get them interested in the work of the Alumni Association.

*Alumni Register.* The College attempts to keep a card file giving the names and addresses of all active members of the Association. This is a difficult task especially in time of war. Friends can be of real service by sending a post card to the Alumni Secretary giving changes in names and addresses.

## Extension Division

Many teachers who desire to continue their studies while actively engaged in teaching find it impossible to attend the regular sessions of the College. In response to this demand, the Extension Division has been established and offers two special types of service: extension classes and correspondence courses. By these two methods, the regular College courses are made available to the teacher in service at a moderate cost.

In addition, the College offers its services to teachers and communities through radio service, speaker and consultant service, visual aids bureau, school visitations, published bulletins, and other means.

### Extension Classes

Extension classes are those given by regular members of the college faculty in the cities or towns within easy reach of the College. By taking advantage of courses thus offered, teachers are enabled to accumulate the credits needed for the renewal of certificates or for the completion of requirements for the degree. These courses carry either two or three hours of credit, and are identical in content with the corresponding courses offered in the regular session. Work done in extension classes or by correspondence does not meet the residence requirements.

Courses in any department of the college will be offered if there is sufficient demand for them. For the organization of a class, a minimum of twelve students must be registered. Classes are organized in September of each year. Since the selection of courses to be offered is determined largely by the number of applications received, it is important that applications for specific courses be filed with the Director as soon after September first as possible.

The fee for all extension courses is \$6.50 per semester hour, and is payable at the time of registration. For further information concerning extension courses, write *J. O. Grimes, Director of Extension.*

### Correspondence Courses

Through the use of the mails, the privileges of the college campus and services of the teaching faculty are extended to the student whose daily occupation prevents enrollment in the regular sessions.

Persons desiring to enroll for correspondence courses will write to the Correspondence Division for an enrollment blank and a copy of the Bulletin which gives a list of the courses offered. When this enrollment blank, properly filled out and accompanied by remittance to cover the fee, is received, the first lesson assignments will be mailed to the student.

The fee for correspondence courses is \$6.50 per semester hour of credit carried. Enrollment between May 15 and September 15 carries an additional fee of \$2.00 per course.

Credit earned in extension classes and in correspondence courses may be applied toward the bachelor's degree; however not more than one-fourth of any curriculum leading to the degree shall be taken in extension classes or by correspondence, and not more than half of this shall be done by correspondence. Correspondence courses are not accepted for credit toward the degree of Master of Arts in Education.

No student doing work in residence may register for a course in extension or by correspondence without obtaining the approval of the Admissions and Standards Committee. All inquiries concerning extension classes or correspondence courses should be addressed to the Director of Extension.

### Visual Aids Service

The College maintains a visual aids library of over 2,000 glass slides and a fair supply of films. These are circulated to the schools of the state. Each school using this service pays a fixed annual fee. For further information concerning the library write to the Director of Visual Aids Library.

## The Summer Session

*Two Terms.* The summer session consists of two terms of five weeks each. It meets the needs of superintendents, principals, supervisors, regular college students, and recent graduates of high schools who wish to earn credits to meet the requirements for the degree of Bachelor of Arts, or the degree of Master of Arts in Education, or for the renewal of certificates.

*Air Cooling.* The Matthews Library is air-cooled by the latest refrigeration system. Students can study in comfort and attend classes in comfort in any of the classrooms in the library.

*Forenoon Classes.* Classes meet in the forenoon only, leaving the afternoons open for study, reference reading, laboratory work or recreation. This gives students a fine opportunity to have individual conferences with faculty members as desired.

*College Credit.* Since the class periods are extended from fifty to sixty minutes, students can earn six semester hours for each term, or twelve hours for the entire summer session. No student will be permitted to register for more than six semester hours per term. Full residence credit is given. In three full summer sessions, the residence requirements of the college can be met. By attending summer sessions, students can graduate in three years or less.

*Admission to the Summer Session.* In general, applicants for admission are expected to present evidence of graduation from an approved four-year high school, or evidence of good standing in an accredited college. Mature students, over 21 years of age, are admitted without the above qualifications, but with the understanding that all admission requirements must be satisfied before they can become candidates for the bachelor's degree.

*Graduate Study.* The summer session offers an excellent opportunity for superintendents, principals, supervisors, and other teachers, who have already acquired the bachelor's degree, to do graduate work leading to the degree of Master of Arts in Education, without loss of time in their professional capacity or sacrifice of salary.

*Fees and Expenses.* The tuition fee is \$20 per term, both for residents and non-residents of Arizona. A library fee of \$1.00 per term is required of all summer students. Textbooks and stationery may be purchased at the college book store on the campus. Board and room for the summer may be obtained at moderate rates.

*Write for Bulletin.* Those teaching in Arizona schools will receive the summer session bulletin in March. Others should send their requests for bulletins or for other information to J. O. Grimes, Director of Summer Session.

## Directed Teaching

*Under Direction of Mr. Payne*

*Admission to Directed Teaching.* In order to be admitted to directed teaching, students must pass a test covering the subjects taught in the elementary schools, and have a cumulative scholarship index of 1.75.

*Requirements.* All students who are candidates for the bachelor's degree and elementary certification teach in the training schools for one-half day for one semester in the last half of the third or first half of the fourth year. Students who are preparing for secondary certification teach for one-quarter day for one full semester in the last half of the third or first half of the fourth year. Regular class work in school law and techniques of school management parallels the directed teaching. The student's load is limited to sixteen semester hours during the semester in which he is teaching. Student teachers are not permitted to take part in any activities that interfere with their directed teaching, conferences, or other duties in the training school.

*Training Schools.* The College has available seven distinct schools for the training of student teachers. In addition, many students do directed teaching in the Phoenix schools. Each of these presents its own particular type of problems, so that the institution is enabled to provide special training for all the different types of teaching, from the nursery to the twelfth grade, inclusive. All these schools are organized and maintained as regular public schools, and class conditions parallel as nearly as possible those in the other public schools of the state.

*Ira D. Payne Training School.* This modern building is located on the college campus. It houses a kindergarten, the elementary school composed of grades one to five, inclusive, and the junior high school composed of grades six to eight, inclusive. A well-designed activity and reading-readiness program is carried on in the kindergarten. Special attention is given in the elementary school to the social development of children, activity units, auditorium work, music, and play activities. The junior high school is administered as a separate unit. Its distinguishing characteristics are a flexible program, departmentalized work, limited electives, work adjusted to individual differences, and emphasis on the practical arts and activity work in addition to the regular subjects.

*Eighth Street School.* This school is conducted for the purpose of giving prospective teachers experience with Spanish-American children. The school comprises grades one to eight, inclusive. The younger children have their own manual training shop and domestic science room. The older children have access to the shops and laboratories of the College. The music and art work is under the supervision of members of the college faculty. Opportunity is offered for glee club, orchestra, and Boy Scout work.

*Nursery School.* A modern, well-equipped nursery school is located in one wing of the Home Management House. This school provides

experience, through directed teaching in this field, for students who are preparing for vocational certification in home making.

*Rural School.* Located two miles south of Tempe, this school is operated by the College in cooperation with the district board for the preparation of teachers for the rural schools of Arizona. This six-room school is under the direction of a trained supervisor. Student teachers are furnished transportation on the college buses. Every effort is made to keep the conditions typical of rural situations elsewhere, so the student teacher may learn to meet actual rural problems.

*Tempe Grammar School.* A limited number of students do directed teaching in the city schools under the supervision of the director of training schools and the regular teachers. The equipment and the program are similar to those of the other schools.

*Phoenix Grade Schools.* Directed teaching may be done in some of the elementary schools by students interested in certain special types of teaching.

*Phoenix High Schools.* Students preparing to teach in secondary schools may do their directed teaching in Phoenix Union High School, under the guidance of the supervisor of high school teaching, the director of teacher training of the College, and the head of the department in which the teaching is done.

## The College Library

*Matthews Library.* The library occupies the entire upper floor of the Matthews Library and Administration Building. The reading rooms have a seating capacity of approximately three hundred students. The book collection contains 40,000 volumes, including an excellent reference collection, the Arizona collection, as well as other special collections. Over 5,000 bound periodicals are available. The library is a recent United States government depository for federal documents. The periodical subscription list includes the outstanding general and professional magazines and journals, as well as leading newspapers of the nation and state. The Carnegie Endowment for International Peace maintains a collection of books in the library for the International Relations Club.

*Training School Library.* In addition to the general library, there is a children's library in the Training School. This collection contains about 5,000 carefully selected juvenile books covering all types of literature. The book collection is supplemented by a large collection of pictures, by a selection of outstanding juvenile periodicals, and by a textbook exhibit for enrichment of directed teaching.

# The Graduate Division

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## The Graduate Program

*Organization.* In March, 1937, an Act of the Thirteenth Legislature authorized the Arizona State Teachers Colleges to grant the advanced degree of Master of Arts in Education. A program of graduate work has been offered at the Arizona State Teachers College, Tempe, since the 1937 summer session.

The Graduate Council is responsible for the development and formulation of general policies and for the approval of procedures essential to the organization and administration of the graduate program. The members of the Council are appointed by the President of the College. The Director of Graduate Study acts as chairman of the Graduate Council and is directly responsible for the administration of its policies and program. The Committee on the Graduate Offering is responsible to the Graduate Council for the development, supervision, appraisal, and approval of courses that shall constitute the graduation offering. This Committee includes the Heads of the Departments of the College and the Director of Graduate Study as chairman.

*Purpose.* The program of graduate work at Arizona State College has for its primary purpose the preparation of professionally competent teachers and other educational workers.

The interests, needs, abilities, and purposes of each student are utilized in organizing a unified and balanced program of work directed toward the realization of a definite and worthy educational objective. Programs of graduate work leading to the degree of Master of Arts in Education are provided for students who have as a central purpose preparation for (1) primary, elementary, or secondary teaching, (2) administration and supervision of elementary or secondary schools, (3) special educational services such as remedial reading and student personnel and guidance work, or (4) educational pursuits other than public school work.

High scholarship and professional competency are required in one or more of these areas. Students whose major purpose is preparation for teaching, particularly at the secondary school level, will be expected to include in their programs such courses in fields other than education as may be essential for the development of competency in a major teaching field.

The degree of Master of Arts in Education is conferred upon the satisfactory completion of the five-year secondary curriculum or

upon the completion of an appropriately chosen program of at least thirty semester hours of graduate work following graduation from any other curriculum.

The graduate program is designed to serve not only the needs of students who desire the degree of Master of Arts in Education, but to meet the needs of students who may wish to continue their professional preparation, meet certification requirements, or broaden their education without reference to the requirements for a degree.

## Admission to Graduate Work

A student who has received the bachelor's degree, or its equivalent, from an approved college or university, may be admitted to graduate study at Arizona State College. Graduate students are admitted to Regular or Special Standing.

*Regular Standing.* Graduate students who file with the Director of Graduate Study an Application for Admission to Graduate Study in which they declare their intention of entering upon a program of graduate study with a view to meeting the requirements for the master's degree, and who file with the Registrar official transcripts of all college work done elsewhere are admitted to regular standing upon acceptance of the Application and approval of transcripts. More specifically, the following criteria may be employed in determining an applicant's eligibility for admission to Regular Standing:

1. A bachelor's degree from an approved institution.
2. An acceptable scholastic average in undergraduate work.
3. High scholarship in any graduate work done elsewhere.
4. An undergraduate program showing breadth of content as a whole, and a satisfactory concentration in special fields.

*Special Standing.* Graduate students who file with the Director of Graduate Study an Application for Admission to Graduate Study in which they declare their intention of entering upon a program of graduate study for purposes other than meeting requirements for the master's degree are admitted to special standing. Ordinarily students admitted to special standing need not file transcripts of undergraduate and graduate work done elsewhere. A graduate student may have his standing changed from special to regular by satisfying the above condition, viz., by making application, filing transcripts, and being accepted. Credit earned as a special graduate student may be applied toward requirements for the master's degree only upon the approval of the Director of Graduate Study.

Transcripts of undergraduate and of graduate work done elsewhere should be sent to the office of the Registrar well in advance of initial registration. Graduate students who expect to qualify for an Arizona teaching certificate must file two copies of transcripts of undergraduate and of graduate work done elsewhere. The second copy will be forwarded to the State Department with the application for the teaching certificate.

Admission to graduate study does not imply admission to candidacy for the master's degree.

*Registration.* Graduate students register on the regular registration days at the beginning of each semester or summer term. Registration dates are shown in the calendar.

*Course Load.* Graduate students may not register for more than sixteen semester hours of course work, inclusive of thesis, in any one semester, nor for more than six semester hours, inclusive of thesis, in a single summer term. Students employed part time may not register for a full course load. In-service teachers, employed full time, are permitted a maximum course load, inclusive of thesis, of five semester hours of work in any one semester. Exceptions to these regulations must have the approval of the Director of Graduate Study.

*Advisement.* The Director of Graduate Study is general adviser to all graduate students until a graduate advisory committee has been appointed. Students who enter upon a program of graduate study at the beginning of either semester of the regular academic year shall request the appointment of a special advisory committee before the middle of the first semester of residence. Students who enter upon a program of study at the beginning of either term of the summer session shall request the appointment of a special advisory committee before the end of the first summer term of residence.

## Admission to Candidacy

Admission to graduate study does not imply admission to candidacy for a master's degree. Admission to candidacy for the degree of Master of Arts in Education is contingent upon the recommendation of the student's advisory committee and the approval of the Graduate Council.

Before being accepted as a candidate for the degree of Master of Arts in Education, a student will be expected to have:

1. Given evidence of personal and professional fitness to become a candidate for a professional degree in Education.

2. Attained a satisfactory level of competence as a teacher through pre-service or in-service teaching experience.
3. Selected a balanced program of graduate work directed toward the realization of a definite and worthy objective.
4. Demonstrated ability to do satisfactory and creditable work at the graduate level.
5. Selected a suitable thesis problem.
6. Shown promise of ability to do critical thinking and of ability to carry forward an original and independent study or investigation.

Before filing an Application for Admission to Candidacy, students may be required to take certain general qualifying examinations. Advisers may arrange with the Director of Graduate Study for the administration of special qualifying examinations, oral or written, to individual students before recommending them for admission to candidacy.

Each student shall file with the Director of Graduate Study an Application for Admission to Candidacy for the master's degree not later than four calendar months prior to the end of the semester or summer term in which he expects to complete the requirements for the degree, but not until he has completed at least twelve semester hours of graduate credit, inclusive of current registration, at the Arizona State College, Tempe.

## Requirements for the Master's Degree

*Program of Course Work.* The degree of Master of Arts in Education may be conferred upon a student who, having been accepted as a candidate for the degree, completes with high credit the program of work which accompanied his application for admission to candidacy. This program shall include a minimum of thirty semester hours of advanced work inclusive of course work, individual problems, and thesis so planned as to meet with the approval of the student's advisory committee and the Graduate Council.

*Prerequisites.* Graduate students who intend to become candidates for the degree of Master of Arts in Education are required to present a minimum of twenty-four semester hours of undergraduate credit in Education and related courses.

Graduate work in both education and academic courses presupposes certain undergraduate course prerequisites or an equivalent background acquired through experience. In general the student will be expected to have completed twenty-four semester hours of

credit, or the equivalent, in a given field before enrolling in graduate courses in the same or closely related field. Fifteen semester hours of credit, or the equivalent, in a given field is the usual prerequisite for graduate credit in approved upper division courses in the same or closely related fields.

*Residence.* Candidates for the master's degree are required to complete a full program of twenty-six hours of graduate course work (four semester hours for thesis excepted) in residence at this institution. This requirement is designed to assure for most students a minimum of residence study of two semesters or five summer terms.

*Graduate Credit Earned During Senior Year.* A senior student, regularly enrolled at Arizona State College, who is within twelve semester hours of completing the requirements for the bachelor's degree, may register for a sufficient number of hours in approved upper division courses to complete his semester or term program.

*Transfer of Graduate Credit Earned Elsewhere.* Under certain circumstances, a student who holds a bachelor's degree from Arizona State College, and who has taken graduate work at some other approved institution, may arrange to transfer as many as six semester hours of credit to be applied toward the requirements for the degree of Master of Arts in Education.

*Graduate Credit in Extension Courses.* A maximum of six semester hours of credit earned in approved graduate extension courses may be applied toward the requirements for the master's degree.

*Graduate Credit for Summer Work.* Graduate courses are offered during both terms of the summer session. All of the course requirements for the master's degree may be completed in summer residence. A maximum of six semester hours of graduate credit may be earned in a single summer term.

*Time Limit.* Graduate work, to be acceptable for credit toward the requirements for the master's degree, must be completed within a period of five years preceding the date on which the degree is conferred.

*Course Grades and Credit.* The college grading system—A, B, C, D, E, and Inc. is used to report quality of credit in graduate course work. The twenty-six semester hours of graduate credit (exclusive of thesis) accepted in fulfillment of the requirements for the master's degree shall average not lower than "B" grade. Course work, other than thesis, reported "Incomplete" must be completed within a year of the official ending of the course.

*Thesis.* A thesis is required in partial fulfillment of the requirements for the degree of Master of Arts in Education. The thesis may count for not more than four semester hours of graduate credit.

In the selection of a suitable thesis problem, the student shall be guided by his adviser. The student's adviser shall assist the student in the selection of a problem, inspect and approve the preliminary and final drafts of the thesis, and exercise general supervision over matters pertaining to the organization, development, and preparation of the study in final form.

On or before April 1, the student shall deliver to the office of the Director of Graduate Study:

1. Two typed copies (the original and the first carbon) of his complete thesis, approved and signed by his adviser.
2. Two typed copies of an abstract of his thesis approved and signed by his adviser.
3. A receipt from the Business Office for a \$5.00 deposit covering the cost of binding the two copies of his thesis.

The Director of Graduate Study will countersign the receipt covering the cost of binding to indicate that the two copies of the thesis have been accepted for binding. The two bound copies of the student's thesis shall be deposited in the College library.

*Final Examination.* Candidates for the degree of Master of Arts in Education are required to pass final written and oral examinations. Upon final approval and signature of the student's thesis, the adviser will arrange with the student dates for the examinations.

The written examination is prepared, administered, and evaluated by the student's adviser. The written examination, after being evaluated by the adviser, is filed in the office of the Director of Graduate Study.

The oral examination is conducted by a committee of three consisting of the student's adviser, his committeeman, and a member appointed by the Director of Graduate Study.

*Application for Graduation.* Following admission to candidacy for the master's degree, and not later than March 1, the student shall pay a graduation fee of \$10.00 at the Business Office of the College and shall file an application for graduation at the office of the Registrar. Blanks for this purpose may be obtained at the office of the Registrar.

*Conferring the Master's Degree.* Candidates for the degree of Master of Arts in Education are required to be present at the commencement exercises in the prescribed academic costume. Excep-

tions to this regulation shall be granted only upon petition to the Director of Graduate Study and the President of the College.

## The Graduate Offering

*Approved Graduate Courses.* Courses which have been approved for graduate credit by the Committee on the Graduate Offering and the Graduate Council constitute the graduate offering. Descriptions of these courses will be found in the departmental offerings in this catalog.

Courses open only to graduate students are numbered 300 and above. Candidates for the degree of Master of Arts in Education are required to present at least fifteen semester hours of credit, inclusive of thesis, in graduate courses numbered 300 and above. Courses numbered 200-299 followed by "g" are approved upper division courses which may be taken for graduate credit. Not to exceed fifteen semester hours of graduate credit in approved upper division courses will be accepted toward the requirements for the master's degree.

A special type of graduate work is provided through Individual Problem courses in the several departments of the College. Individual Problem courses carry the number 390 in each department. Ordinarily registration for an Individual Problem course is limited to those graduate students who have been admitted to regular standing and who have completed, or are currently registered for, five or more semester hours of graduate course work. Ordinarily not more than six semester hours of credit in Individual Problem courses will be accepted in partial fulfillment of the requirements for the master's degree.

# The Curriculums

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*Grouping of Curriculums.* The curriculums offered by the college are listed under three headings: (1) Teacher-Education, (2) Preprofessional and Professional, (3) Technical and Semi-Professional. Several curriculums are found under each heading.

*Selecting a Curriculum.* Each student must designate at the time of registration the curriculum he proposes to follow. Selection of curriculums should be made with great care since a change of curriculum may retard the student's progress toward graduation. Students who have their goals well fixed on entering college have a distinct advantage over others who do not.

On entering the College, a faculty member will be assigned to each student as a curriculum adviser. See the section entitled, "Curriculum Advisers and Guidance," under the heading marked, "General Information."

*Meeting New Requirements.* When new curriculum requirements are made, students are asked to conform to them in so far as this is possible without working a hardship upon the students concerned.

*Withdrawal of Courses.* The College does not offer each year all of the courses listed in the catalog. The right is reserved to cancel any offerings if conditions justify it.

*Selection of Courses.* In any curriculum, freshmen and sophomores should select courses numbered from 100 to 199; juniors and seniors, those numbered from 200 to 299; and graduates, those numbered from 300 to 399 or those numbered 200 to 299 with a "g" attached. Exceptions may be approved by curriculum advisers.

*Starred Courses.* In a number of the curriculums given below, certain courses have a star placed in front of them. This indicates that the course is given both the first and second semester of that year. The desire is to have one-half of the students take the course the first semester, and the other half the second semester.

## Teacher-Education Curriculums

*Curriculums and Degrees.* There are three teacher-education curriculums: the Kindergarten-Primary, the Elementary, and the Secondary. Each of these curriculums leads to the degree of Bachelor of Arts in Education requiring 126 semester hours of work. The Secondary Curriculum provides a five-year program requiring thirty additional semester hours of work, including at least six hours in

Education. It gives the degree of Master of Arts in Education. Students who complete the Kindergarten-Primary, or the Elementary Curriculum may also arrange a program of graduate work leading to the master's degree. Students must have a scholarship index of 1.75 or better in order to receive the bachelor's degree.

*Arizona Certification.* The State Board of Education issues the following types of certificates: (1) Kindergarten-Primary, (2) Kindergarten-Elementary, (3) Elementary, (4) Pre-Secondary, (5) Secondary, (6) Administrator's, (7) Special in Art, Commerce, Home Economics, Industrial Arts, Music, and Physical and Health Education. For elementary certification candidates must hold a bachelor's degree with certain prescribed work in Education and Psychology. For the secondary certificate candidates must have a master's degree or thirty semester hours of graduate work including certain prescribed courses. From five to ten semester hours of directed teaching are required for certification depending upon the type of certificate. Those desiring special certificates must take at least thirty semester hours of work in the fields chosen. Students who satisfy the requirements for bachelor's degree under the Secondary Curriculum may obtain the elementary certificate with an additional three semester hours in Ed. 230, and five hours of directed teaching in grades one to eight inclusive. They may obtain the pre-secondary certificate with six hours of properly selected graduate courses.

*General Education.* It is assumed that all teachers should have a background of general knowledge and culture. Therefore, the required courses in the first two years in each teacher-education curriculum are identical. A liberal allowance has been made for electives to meet the individual student's desires and needs for services in public education.

*Majors and Minors.* No major or minor is required in the Kindergarten-Primary, or the Elementary Curriculum. At least one major of at least twenty-four semester hours and one minor of at least fifteen hours in subject matter fields taught in high schools are required in the five-year Secondary Curriculum. It is recommended that students seeking the secondary certificate should complete at least one major and two minors, and thus be prepared to teach in three or more fields. This will increase their opportunities for employment. The required subjects count toward the major or minor in all curriculums. In selecting majors and minors, such students should keep in mind the requirements of the North Central Association, the Arizona State Board of Education, and the combinations usually assigned beginning teachers in Arizona high schools. Information

concerning these matters can be obtained at the office of the Director of Teacher Training.

*Directed Teaching.* Directed teaching should be taken not earlier than the second semester of the junior year, and not later than the second semester of the senior year. For admission to directed teaching the student must pass a teaching entrance test, and have a scholarship index of at least 1.75.

### Kindergarten-Primary Curriculum

Leading to the degree of Bachelor of Arts in Education and to Kindergarten-Primary or Kindergarten-Elementary Certification.

FRESHMAN YEAR					
First Semester		Hours	Second Semester		Hours
Eng. 101 First Year English	_____	3	Eng. 102 First Year English	_____	3
*G. S. 100 Intro. to the Physical Sciences	_____	4	*G. S. 110 Intro. to the Biological Sciences	_____	4
*Hist. 110 Growth of American Institutions	_____	3	*Geo. 100 Elements of Geography	_____	3
*Psych. 100 Elementary Psychology	_____	3	*Ed. 120 Sociology	_____	3
Physical Education activity	_____	0.5	Physical Education activity	_____	0.5
Electives	_____	3	Electives	_____	3
		16.5			16.5
SOPHOMORE YEAR					
*Speech 110 Elements of Speech	_____	2	*P. E. 100 Hygiene	_____	2
*Eng. 171 Introduction to Literature	_____	3	*Hist. 120 World History	_____	3
*Econ. 130 Introduction to Econ.	_____	3	*Math. 105 Basic Mathematics	_____	3
*Art 101 Introduction to Art	_____	2	*Mus. 130 Introduction to Music	_____	2
Physical Education activity	_____	0.5	Physical Education activity	_____	0.5
Electives	_____	5	Electives	_____	5
		15.5			15.5
JUNIOR YEAR					
Ed. 207 Lit. for the K. P. Grades	_____	3	Ed. 212 Play Education and Materials	_____	3
Ed. 204 Language Arts for the Lower Elementary School	_____	2	Mus. 260 K. P. Music	_____	2
Ed. 201 Art in K. P. School	_____	2	Ed. 202 Crafts for K. P.	_____	3
*Psych. 200 Educational Measurements	_____	3	G. S. 231 Science for the Elementary School	_____	3
Electives	_____	6	Electives	_____	5
		16			16
SENIOR YEAR					
*Ed. 260 Directed Teaching	_____	10	Psych. 234 Child Psychology	_____	3
Ed. 209 K. P. Curriculum and Teaching Problems	_____	3	*P. S. 200 Constitutional Government	_____	3
Electives	_____	2	*Ed. 250g Philosophy of Ed. or	_____	3
		15	*Ed. 211g History of Education	_____	3
			Electives	_____	6
					15

Note: Students desiring the kindergarten-primary certificate must follow the Kindergarten-Primary Curriculum with directed teaching in the kindergarten and grades 1, 2, or 3. Students desiring the kindergarten-elementary certificate must follow the Kindergarten-Primary Curriculum with directed teaching in the kindergarten and in grades 4 to 8, plus Ed. 214, 230, and Psych. 213.

Students qualifying for the kindergarten-primary and the kindergarten-elementary certificates must show proficiency in piano accompaniment and pass the piano tests. They must also show sufficient proficiency in sight-reading and singing to meet the needs of young children. It is recommended that students needing piano lessons begin them in the freshman year. Music 125, 126, 127, and 128 are offered to help the student meet the requirements of the piano test.

Those who are interested in Kindergarten-Primary Education but who do not desire certification may well choose from the following: Ed. 201, 202, 204, 212.

### Elementary Curriculum

Leading to the degree of Bachelor of Arts in Education and to certification for teaching in Elementary Schools of Arizona.

#### FRESHMAN YEAR

First Semester	Hours	Second Semester	Hours
Eng. 101 First Year English _____	3	Eng. 102 First Year English _____	3
*G. S. 100 Introduction to the Physical Sciences _____	4	*G. S. 110 Introduction to the Biological Sciences _____	4
*Hist. 110 Growth of American Institutions _____	3	*Geog. 100 Elements of Geography _____	3
*Psych. 100 Elementary Psychology _____	3	*Ed. 120 Sociology _____	3
Physical Education activity _____	0.5	Physical Education activity _____	0.5
Electives _____	3	Electives _____	3
	16.5		16.5

#### SOPHOMORE YEAR

*Speech 110 Elements of Speech _____	2	*P. E. 100 Hygiene _____	2
*Eng. 171 Introduction to Literature _____	3	*Hist. 120 World History _____	3
*Econ. 130 Introduction to Econ. _____	3	*Math. 105 Basic Mathematics _____	3
*Art 101 Introduction to Art _____	2	*Mus. 130 Introduction to Music _____	2
Physical Education activity _____	0.5	Physical Education activity _____	0.5
Electives _____	5	Electives _____	5
	15.5		15.5

#### JUNIOR YEAR

*Psych. 200 Ed. Measurements _____	3	*Psych. 213 Ed. Psychology _____	3
*Ed. 214 Language Arts for Upper Elementary School _____	2	*P. E. 220 Playground Leadership _____	2
*Ed. 204 Language Arts for Lower Elementary School _____	2	*Ed. 260 Directed Teaching _____	10
Electives _____	8		
	15		15

#### SENIOR YEAR

*Ed. 211g History of Education or _____		*P. S. 200 Constitutional Government _____	3
*Ed. 250g Philosophy of Ed. _____	3	*Art 210 Public School Art _____	2
*Ed. 230 Elementary Curriculum and Teaching Techniques _____	3	Electives _____	10
Electives _____	9		
	15		15



Future teachers at work in the classroom  
on the playground





Some Extra-Curricular Activities . . . A student dance . . . the Activity Building . . . modern dance . . . "Anchors Aweigh" . . . "Midsummer Night's Dream"



Students qualifying for the kindergarten-primary and the kindergarten-elementary certificates must show proficiency in piano accompaniment and pass the piano tests. They must also show sufficient proficiency in sight-reading and singing to meet the needs of young children. It is recommended that students needing piano lessons begin them in the freshman year. Music 125, 126, 127, and 128 are offered to help the student meet the requirements of the piano test.

Those who are interested in Kindergarten-Primary Education but who do not desire certification may well choose from the following: Ed. 201, 202, 204, 212.

### Elementary Curriculum

Leading to the degree of Bachelor of Arts in Education and to certification for teaching in Elementary Schools of Arizona.

#### FRESHMAN YEAR

First Semester	Hours	Second Semester	Hours
Eng. 101 First Year English _____	3	Eng. 102 First Year English _____	3
*G. S. 100 Introduction to the Physical Sciences _____	4	*G. S. 110 Introduction to the Biological Sciences _____	4
*Hist. 110 Growth of American Institutions _____	3	*Geog. 100 Elements of Geography _____	3
*Psych. 100 Elementary Psychology _____	3	*Ed. 120 Sociology _____	3
Physical Education activity _____	0.5	Physical Education activity _____	0.5
Electives _____	3	Electives _____	3
	16.5		16.5

#### SOPHOMORE YEAR

*Speech 110 Elements of Speech _____	2	*P. E. 100 Hygiene _____	2
*Eng. 171 Introduction to Literature _____	3	*Hist. 120 World History _____	3
*Econ. 130 Introduction to Econ. _____	3	*Math. 105 Basic Mathematics _____	3
*Art 101 Introduction to Art _____	2	*Mus. 130 Introduction to Music _____	2
Physical Education activity _____	0.5	Physical Education activity _____	0.5
Electives _____	5	Electives _____	5
	15.6		15.5

#### JUNIOR YEAR

*Psych. 200 Ed. Measurements _____	3	*Psych. 213 Ed. Psychology _____	3
*Ed. 214 Language Arts for Upper Elementary School _____	2	*P. E. 220 Playground Leadership _____	2
*Ed. 204 Language Arts for Lower Elementary School _____	2	*Ed. 260 Directed Teaching _____	10
Electives _____	8		
	15		15

#### SENIOR YEAR

*Ed. 211g History of Education or _____		*P. S. 200 Constitutional Government _____	3
*Ed. 250g Philosophy of Ed. _____	3	*Art 210 Public School Art _____	2
*Ed. 230 Elementary Curriculum and Teaching Techniques _____	3	Electives _____	10
Electives _____	9		
	15		15

## Secondary Curriculum

Leading to the degree of Bachelor of Arts and Master of Arts in Education and to certification for teaching in Secondary Schools of Arizona.

### FRESHMAN YEAR

First Semester	Hours	Second Semester	Hours
Eng. 101 First Year English _____	3	Eng. 102 First Year English _____	3
*G. S. 100 Introduction to the Physical Sciences _____	4	*G. S. 110 Introduction to the Biological Sciences _____	4
*Hist. 110 Growth of American Institutions _____	3	*Geog. 100 Elements of Geography _____	3
*Psych. 100 Elementary Psychology _____	3	*Ed. 120 Sociology _____	3
Physical Education activity _____	0.5	Physical Education activity _____	0.5
Major, minor, or elective _____	3	Major, minor, or elective _____	3
	<hr/>		<hr/>
	18.5		16.5

### SOPHOMORE YEAR

*Speech 110 Elements of Speech _____	2	*P. E. 100 Hygiene _____	2
*Eng. 171 Introduction to Literature _____	3	*Hist. 120 World History _____	3
*Econ. 130 Introduction to Econ. _____	3	*Math. 105 Basic Mathematics _____	3
*Art 101 Introduction to Art _____	2	*Mus. 130 Introduction to Music _____	2
Physical Education activity _____	0.5	Physical Education activity _____	0.5
Major, minor, or elective _____	5	Major, minor, or elective _____	5
	<hr/>		<hr/>
	15.5		15.5

### JUNIOR YEAR

*Psych. 213 Educational Psychology _____	3	*Psych. 200 Ed. Measurements _____	3
Ed. 215 Secondary School _____	3	†Ed. 228 Methods of Teaching in Secondary Schools _____	3
Education elective _____	2	Education elective _____	2
Major, minor, or electives _____	8	Major, minor, or electives _____	8
	<hr/>		<hr/>
	16		16

### SENIOR YEAR

*Ed. 260 Directed Teaching _____	5	*Ed. 250g Philosophy of Ed. or _____	
Major, minor, or electives _____	10	*Ed. 211g Hist. of Education _____	3
		*P. S. 200 Constitutional Government _____	3
		Major, minor, or electives _____	9
	<hr/>		<hr/>
	15		15

### GRADUATE YEAR

Ed. 300 Thesis Preparation _____	2	*Thesis _____	4
Electives _____	13	Electives _____	11
	<hr/>		<hr/>
	15		15

† Students majoring in Art, Physical Education, Commerce, Home Economics, Industrial Arts, and Music may substitute the special methods course given in their departments for this requirement.

\* Courses marked with an asterisk may be taken either semester.

## Preprofessional and Professional Curriculums

The curriculums outlined below meet the needs of two classes of students: those who desire one, two, or more years of work before transferring to a professional school such as Law, Dentistry, or Medicine, and those who wish to obtain a degree without certification as a teacher.

The basic college courses necessary for entering professional schools are given as a part of the regular program of the education of teachers, and do not involve additional cost to the state. Credits earned in these courses, if properly selected, can be transferred without loss to schools of Agriculture, Engineering, Law, Medicine, and other fields in which students plan to complete their work. Thus many students find it both economical and convenient to take one, two, three, and in some cases four years of work.

The following curriculums are arranged so that the general requirements of most of the schools are met. It is important that each student obtain a catalog of the institution to which he plans to transfer, and consult his adviser so that his course of study may be planned most wisely.

### Pre-Agriculture

The requirements for the first and second years vary considerably in the field of Agriculture. The following course of study will meet most of the requirements if the student carefully selects electives to meet the requirements of the college to which he plans to transfer.

#### FIRST YEAR

First Semester	Hours	Second Semester	Hours
Eng. 101 First Year English _____	3	Eng. 102 First Year English _____	3
Biol. 140 General Zoology _____	4	Biol. 130 General College Botany _____	4
Chem. 111 Gen. College Chemistry _____	4	Chem. 112 Gen. College Chemistry _____	4
Ag. 107 Animal Industry _____	4	Ag. 108 Plant Industry _____	4
Physical Education activity _____	0.5	Physical Education activity _____	0.5
	15.5		15.5

#### SECOND YEAR

Biol. 133 Plant Anatomy _____	4	Biol. 134 Plant Physiology _____	4
Biol. 183 Gen. Bacteriology _____	4	Chem. 180 El. Organic Chemistry _____	4
*Econ. 130 Introduction to Econ. _____	3	Physical Education activity _____	0.5
Phys. 111 Gen. College Physics _____	4	Electives chosen from Ag. 114, 116, 123, 126, 143 and Phys. 112 _____	9
Ag. 125 Principles of Horticulture _____	2		
Physical Education activity _____	0.5		
	17.5		17.5

## Pre-Dental

The following two-year curriculum will satisfy the general requirements for entrance to most dental schools. The selection of electives should be based on the requirements of the catalog of the school at which the student plans to complete his dental training.

FIRST YEAR			
First Semester	Hours	Second Semester	Hours
Eng. 101 First Year English .....	3	Eng. 102 First Year English .....	3
Chem. 111 General College Chemistry .....	4	Chem. 112 General College Chemistry .....	4
Biol. 140 General Zoology .....	4	Biol. 163 Comparative Anatomy .....	4
Foreign Language or elective .....	4	Foreign Language or elective .....	4
Physical Education activity .....	0.5	Physical Education activity .....	0.6
	15.5		15.5
SECOND YEAR			
Biol. 183 General Bacteriology .....	4	Chem. 180 El. Organic Chemistry .....	4
Phys. 111 General College Physics .....	4	Phys. 112 General College Physics .....	4
Ed. 120 Sociology .....	3	Psych. 100 Elementary Psychology .....	3
Foreign Language or elective .....	4	Foreign Language or elective .....	4
Physical Education activity .....	0.5	Physical Education activity .....	0.5
	15.6		15.5

## Pre-Dietetics

The following curriculum will meet the lower division requirements for most dietetics courses.

FIRST YEAR			
First Semester	Hours	Second Semester	Hours
Eng. 101 First Year English .....	3	Eng. 102 First Year English .....	3
Chem. 111 General Chemistry .....	4	Chem. 112 General College Physics .....	4
H. Ec. 101 Elementary Nutrition .....	2	*Ed. 120 Sociology .....	3
*Psych. 100 Elementary Psychology .....	3	H. Ec. 102 Clothing Selection .....	3
*P. E. 100 Hygiene .....	2	Physical Education activity .....	0.5
Physical Education activity .....	0.5	*G. S. 110 Introduction to Biological Science .....	4
Speech 110 Elements of Speech .....	2		
	16.5		17.5
SECOND YEAR			
First Semester	Hours	Second Semester	Hours
Chem. 211g General Organic Chemistry, or .....	5	Chem. 212g General Organic Chemistry, or .....	5
Chem. 142 Elementary Quantitative Analysis .....	4	Chem. 180 Elementary Organic Chemistry .....	4
H. Ec. 105 Applied Food Principles .....	3	H. Ec. 206g Food for Family .....	3
Biol. 171 Human Anatomy .....	3	Biol. 172 Human Physiology .....	3
Eng. 171 Introduction to Literature .....	3	Social Science elective .....	3
Social Science elective .....	3	*Econ. 130 Introduction to Economics .....	3
Physical Education activity .....	0.5	Physical Education activity .....	0.5
	16.5 or 17.5		16.5 or 17.5

## Pre-Engineering

Completion of the following curriculum will fulfill the lower division requirements for a degree in general engineering. The pre-engineering student is urged to obtain a catalog of the engineering

school that he plans to attend, and alter the following curriculum to meet the lower division requirements of that school. The student's choice of courses for electives depends on whether he plans to specialize in civil, mechanical, chemical or electrical engineering.

FIRST YEAR

First Semester	Hours	Second Semester	Hours
Eng. 101 First Year English _____	3	Eng. 102 First Year English _____	3
Chem. 111 General College Chemistry _____	4	Chem. 112 General College Chemistry _____	4
Math. 111 First Year Mathematics _____	4	Math. 112 First Year Mathematics _____	4
I. A. 113 Mechanical Drawing _____	3	I. A. 114 Descriptive Geometry _____	3
Econ. 130 Introduction to Econ. _____	3	I. A. 109 Calculations _____	1
Physical Education activity _____	0.5	Elective _____	2
		Physical Education activity _____	0.5
	17.5		17.5

SECOND YEAR

I. A. 155 Mechanisms _____	3	I. A. 156 Machine Design _____	3
Math. 113 Calculus _____	4	Math. 114 Calculus _____	4
Phys. 111 General College Physics _____	4	Phys. 112 General College Physics _____	4
Physical Education activity _____	0.5	Physical Education activity _____	0.5
Electives chosen from I. A. 145, Chem. 131, Com. 101, 205, Geol. 151 _____	6	Electives chosen from I. A. 100, Com. 101, 206 _____	6
	17.5		17.5

## Pre-Law

The requirements for admission to law schools vary from a minimum of two years of pre-legal college work to a college degree. The American Bar Association has prescribed a minimum of two years. However, higher standards are required by many of the leading law schools. The pre-law student should obtain a copy of the catalog of the law school that he plans to attend and he should plan his course of study under the guidance of the pre-legal adviser at this College.

Most law schools now recommend courses in accounting, taxes, finance, and other business administration courses. Many universities now offer a six-year program leading to a bachelor's degree in business administration at the end of the fourth year and the degree of Bachelor of Law at the end of the sixth year. Because of the ever-increasing importance of training in the field of business for present-day law practice, the student is urged to give serious consideration to the combined program of Business Administration and Law.

The following two-year, pre-legal curriculum is presented merely as an aid to the student in planning his course of study in accordance with the foregoing suggestions.

## FIRST YEAR

First Semester		Hours	Second Semester		Hours
Eng. 101 First Year English	_____	3	Eng. 102 First Year English	_____	3
Com. 101 Elementary Accounting	_____	4	Com. 102 Elementary Accounting	_____	4
*Psych. 100 Elementary Psychology	_____	3	*Ed. 120 Sociology	_____	3
Social Science elective	_____	3	*Hist. 110 Growth of American Insti-	_____	3
Elective	_____	3	tutions	_____	3
Physical Education activity	_____	0.5	Elective	_____	3
			Physical Education activity	_____	0.5
		16.5			16.5

## SECOND YEAR

Com. 205 Business Law	_____	3	Com. 206 Business Law	_____	3
Econ. 131 Principles of Economics	_____	3	Econ. 132 Principles of Economics	_____	3
Science elective	_____	4	Science elective	_____	4
Electives	_____	6	Speech 220 Public Speaking	_____	2
Physical Education activity	_____	0.5	Electives	_____	4
		16.5	Physical Education activity	_____	0.5
					16.5

## Medical Technology

The following curriculum meets the needs of those specializing in Medical Technology. It is ranked Class A by the American Medical Association. The work of the senior year is given at St. Joseph's Hospital, Phoenix. At the conclusion of the fourth year, the student will take an examination formulated by the Board of Registry of the American Society of Clinical Pathologists. Upon the successful completion of this four-year curriculum the student will be granted the degree of Bachelor of Arts in Education without the teaching certificate. Through the W. K. Kellogg Foundation worthy students in Medical Technology may obtain loans of money and scholarships.

## FIRST YEAR

First Semester		Hours	Second Semester		Hours
Eng. 101 First Year English	_____	3	Eng. 102 First Year English	_____	3
Chem. 111 General College Chemistry	_____	4	Chem. 112 General College Chemistry	_____	4
Biol. 140 General Zoology	_____	4	Biol. 130 General College Botany	_____	4
*Ed. 120 Sociology	_____	3	*Psych. 100 Elementary Psychology	_____	3
Elective	_____	2	Elective	_____	2
Physical Education activity	_____	0.5	Physical Education activity	_____	0.5
		16.5			16.5

## SECOND YEAR

Chem. 131 Qualitative Analysis	_____	4	Chem. 142 Quantitative Analysis	_____	4
Social Science elective	_____	3	Biol. 172 Human Physiology	_____	3
*Econ. 130 Introduction to Econ.	_____	3	Chem. 180 El. Organic Chemistry	_____	4
Electives	_____	6	Biol. 163 Comparative Anatomy	_____	4
Physical Education activity	_____	0.5	Physical Education activity	_____	0.5
		16.5			15.5

## THIRD YEAR

Phys. 111 Gen. College Physics	_____	4	Phys. 112 Gen. College Physics	_____	4
Biol. 183 General Bacteriology	_____	4	Chem. 280 Biochemistry	_____	4
Psychology or Education elective	_____	3	Psychology or Education electives	_____	6
Electives	_____	4	Elective	_____	2
		15			16

FOURTH YEAR

Biol. 240 Laboratory Techniques _____	4	Biol. 250 Histology _____	4
Biol. 225 Pathogenic Bacteriology _____	4	Chem. 282a Biochemistry _____	4
Biol. 265 Serology _____	2	Chem. 284 Blood Chemistry _____	4
Biol. 271 Parasitology _____	2	Chem. 286 Urinalysis _____	2
Biol. 273 Hematology _____	4	Chem. 288 Chemistry of Digestion _____	2
	16		16

Medicine (Pre-Medical)

The minimum requirement for admission to accredited medical schools is a four-year high school education and two, three, and in some cases four years of work in general education leading to a Bachelor of Arts degree. A three-year curriculum is offered for the guidance of the pre-medical student, but he may complete two or three years of the following program to meet the specific requirements of the medical school that he plans to attend. A student who plans to take this curriculum should bring a catalog of the medical school selected and consult with the pre-medical adviser.

FIRST YEAR

First Semester	Hours	Second Semester	Hours
Eng. 101 First Year English _____	3	Eng. 102 First Year English _____	3
Biol. 140 General Zoology _____	4	Biol. 130 Gen. College Botany _____	4
Chem. 111 Gen. College Chemistry _____	4	Chem. 112 Gen. College Chemistry _____	4
Foreign language or elective _____	4	Foreign language or elective _____	4
Physical Education activity _____	0.5	Physical Education activity _____	0.5
	15.5		15.5

SECOND YEAR

Math. 111 First Year Mathematics, or elective _____	4	Math. 112 First Year Mathematics, or elective _____	4
Chem. 131 Qualitative Analysis _____	4	Chem. 142 Quantitative Analysis _____	4
*Ed. 120 Sociology _____	3	*Psych. 100 Elementary Psychology _____	3
Foreign language or elective _____	4	Foreign language or elective _____	4
Physical Education activity _____	0.5	Physical Education activity _____	0.5
	15.5		15.5

THIRD YEAR

Phys. 111 General College Physics _____	4	Phys. 112 General College Physics _____	4
Chem. 211 Gen. Organic Chemistry _____	4	Chem. 212 Gen. Organic Chemistry _____	4
Biol. 183 General Bacteriology _____	4	Biol. 234 Embryology _____	4
Electives _____	4	Biol. 163 Comparative Anatomy _____	4
	16		16

FOURTH YEAR

Students who wish the bachelor's degree must meet all graduation requirements including fifteen hours in Psychology and Education.

## Nursing and Pre-Nursing Curriculums

The college offers a one-year and a two-year curriculum for students planning to go into nursing.

### ONE YEAR PRE-NURSING CURRICULUM

Some schools of nursing require one year of college and three years of nursing school.

First Semester	Hours	Second Semester	Hours
Eng. 101 First Year English _____	3	Eng. 102 First Year English _____	3
*Ed. 120 Sociology _____	3	*Psych. 100 Elementary Psychology _____	3
H. Ec. 101 Elementary Nutrition _____	2	Zoology or Bacteriology _____	4
Chem. 110 Introduction to College Chemistry _____	4	Elective _____	3
Biol. 171 Human Anatomy _____	3	Biol. 172 Human Physiology _____	3
Physical Education activity _____	0.5	Physical Education activity _____	0.5
	18.5		18.5

### TWO YEAR PRE-NURSING CURRICULUM

This curriculum is designed for nursing schools that require two years of general college education. The selection of electives should be made after consulting the catalog of the nursing school that the student plans to attend, and the pre-nursing adviser.

#### FIRST YEAR

First Semester	Hours	Second Semester	Hours
Eng. 101 First Year English _____	3	Eng. 102 First Year English _____	3
*Ed. 120 Sociology _____	3	*Psych. 100 Elementary Psychology _____	3
Chem. 100 Introduction to College Chemistry _____	4	Chem. 180 Organic Chemistry _____	4
H. Ec. 101 Elementary Nutrition _____	2	Biol. 140 General Zoology _____	4
Elective _____	3	Elective _____	3
Physical Education activity _____	0.5	Physical Education activity _____	0.5
	16.5		17.5

#### SECOND YEAR

*Eng. 171 Introduction to Literature _____	3	Speech 120 Elements of Speech _____	2
Biol. 171 Human Anatomy _____	3	Biol. 172 Human Physiology _____	3
Social Science elective _____	3	Social Science elective _____	3
H. Ec. 105 Applied Food Principles _____	3	Electives _____	7
Biol. 183 General Bacteriology _____	4	Physical Education activity _____	0.5
Physical Education activity _____	0.5		
	16.5		15.5

### DEGREE CURRICULUM IN NURSING

A degree curriculum in nursing is offered which combines a general college program and a basic professional course in nursing. This curriculum is designed to meet the needs of two groups of students: (1) those who wish to pursue a program of training to be taken at the College and at the Good Samaritan Hospital, Phoenix, leading to the Certificate of Registered Nurse in Arizona and to the bachelor's degree, and (2) those who hold the Certificate of Registered Nurse in Arizona and who wish to complete, in addition, a program of college work that will lead to the bachelor's degree.

Students of the first group may expect to complete all of the requirements under this curriculum within a five-year period. Registered nurses who are graduates of approved three-year nursing schools and who have not had college work may satisfy the requirements for the bachelor's degree under this curriculum with two and one-half years of regular college work.

This combined program of college and professional training in nursing will increase the opportunities for placement in hospitals and elsewhere in administrative, supervisory, and teaching positions. This curriculum has been approved by the Arizona State Board of Nurses.

Students without nursing training will take general college courses at the College during the first three semesters. These students will meet the regular requirements for admission to the College. The basic training in professional nursing is given during the next five semesters at the Good Samaritan Hospital in Phoenix. The final year is spent at the College. As a prerequisite for admission to the final year in residence at the College, under this curriculum, the student must pass the Arizona State Board examinations in nursing. Upon the satisfactory completion of the college and nursing school requirements for this curriculum, the student is eligible for graduation with the bachelor's degree.

Graduates of accredited three-year training schools for nurses will, in addition to meeting the regular admission requirements, need to file with the Registrar well in advance of registration not only official transcripts of high school credits and of college credits earned elsewhere, but also an official transcript of record of training completed in an approved school of nursing and a certified statement from the Arizona State Board of Nurse Examiners that the student was granted registration and holds a currently valid license to practice professional nursing in Arizona. Upon the acceptance of these credentials, advanced standing credit, not to exceed 46 semester hours, will be granted for work completed in an approved school of nursing toward the requirements for the bachelor's degree under this curriculum.

FIRST YEAR

First Semester	Hours	Second Semester	Hours
Chem. 110 Introduction to Chem. _____	4	Chem. 180 Elem. Organic Chem. _____	4
*Psych. 100 Elem. Psychology _____	3	*Ed. 120 Sociology _____	3
Eng. 101 Freshman English _____	3	Eng. 102 Freshman English _____	3
Biol. 171 Human Anatomy _____	3	Biol. 172 Human Physiology _____	3
H. Ec. 101 Nutrition _____	2	Biol. 140 General Zoology _____	4
Physical Education Activity _____	0.5	Physical Education Activity _____	0.5
	15.5		17.5

**SECOND YEAR**

Biol. 183 Gen. Bacteriology .....	4	
H. Ec. 105 Applied Food Principles ...	3	
*Math. 105 Basic Mathematics .....	3	
*Econ. 130 Introduction to Econ. ....	3	Hospital (In professional nurses'
Social Science Elective .....	3	training course)
Physical Education Activity .....	0.5	

16.5

**THIRD YEAR**

Hospital (In professional nurses' training course)

**FOURTH YEAR**

Hospital (In professional nurses' training course)

**FIFTH YEAR**

Psych. 208 Mental Hygiene .....	3	Biol. 204 and 204A, Genetics, or,
Psych. or Ed. Elective .....	3	Biol. 163 Comparative Anatomy, or,
Major and Electives .....	9	Chem. 280 Biochemistry .....
		Psych. or Ed. Elective .....
		Major and Electives (choose 9 hours) 9

15

16

Electives are to be chosen under the guidance of the advisers in the following fields: English, Education, Psychology, Home Economics, Physical Education and Science.

The Major is to be chosen under the guidance of the Curriculum Adviser in one of the following fields. English, Education, Psychology, Education and Psychology, Home Economics, Foreign Languages, or Science.

Graduates of accredited three-year training schools of nursing who have been admitted to this curriculum may be permitted to take electives in place of Biol. 171-2, Human Anatomy and Physiology; H. Ec. 101, Nutrition; H. Ec. 105, Applied Food Principles; and Math. 105, Basic Mathematics.

**Social Welfare**

The following two-year curriculum is designed for students who plan to specialize in social or religious service. It may be expanded to three or four years by selecting the proper sequence of required and elective courses. The student should analyze the bulletin of the institution which he plans to attend so as to be able to alter the following program to meet his individual needs.

**FIRST YEAR**

First Semester	Hours	Second Semester	Hours
Eng. 101 First Year English .....	3	Eng. 102 First Year English .....	3
Spanish or elective .....	4	Spanish or elective .....	4
*G. S. 100 Intro. to Physical Science	4	*G. S. 110 Intro. to Biol. Science .....	4
*Ed. 120 Sociology .....	3	*Psych. 100 Elementary Psychology .....	3
P. E. 100 Hygiene .....	2	Elective .....	3
Physical Education activity .....	0.5	Physical Education activity .....	0.5

16.5

17.5

## GENERAL CURRICULUM

75

### SECOND YEAR

*Eng. 171 Introduction to Literature ... 3	Eng. 154 World Literature _____ 3
Social Science elective _____ 3	Social Science elective _____ 3
Spanish or elective _____ 4	Spanish or elective _____ 4
Physical Education activity _____ 0.5	Physical Education activity _____ 0.5
Electives chosen from Eng., Econ., Psych., Ed., Soc. Sci. _____ 8	Electives chosen from Eng., Econ., Psych., Ed., Soc. Sci. _____ 6
16.5	16.5

## General Curriculum

This curriculum is planned for students who wish a good general education, or to specialize in certain fields, and yet are not interested in obtaining a teacher's certificate.

Not later than the beginning of the sophomore year, the student should select a major and two minors in the respective departments of the College. These departments include the following fields: Agriculture, Art, Commerce, English and Speech, Education, Foreign Languages, Home Economics, Industrial Arts, Mathematics, Music, Physical Education, Psychology, The Sciences, The Social Sciences.

The major consists of not less than twenty-four semester hours of work, and each minor consists of at least fifteen hours. Students will plan their programs under the direction of the department head and the special advisers representing their major and minor fields of concentration. Suggestions concerning majors and minors are found immediately preceding the description of courses for each department.

### FIRST YEAR

First Semester	Hours	Second Semester	Hours
Eng. 101 First Year English _____ 3		Eng. 102 First Year English _____ 3	
Science _____ 4		Science _____ 4	
*Ed. 120 Sociology _____ 3		*Psych. 100 Elementary Psychology _____ 3	
*P. E. 100 Hygiene _____ 2		Major, minor, or elective _____ 6	
Major or elective _____ 4		Physical Education activity _____ 0.5	
Physical Education activity _____ 0.5			
16.5		16.5	

### SECOND YEAR

*Eng. 171 Introduction to Literature ... 3	Social Science elective _____ 3
Social Science elective _____ 3	Foreign language or elective _____ 4
Foreign language or elective _____ 4	Major, minor or elective _____ 9
Major, minor or elective _____ 6	Physical Education activity _____ 0.5
Physical Education activity _____ 0.5	
16.5	16.5

### THIRD YEAR

Foreign language or elective _____ 4	Foreign language or elective _____ 4
Econ. 130 Introduction to Econ. _____ 3	Psych. or Ed. elective _____ 3
Major or minor _____ 9	Major or minor _____ 9
16	16

### FOURTH YEAR

Psych. or Ed. elective _____ 3	Psych. or Ed. elective _____ 3
Major or minor _____ 12	Major or minor _____ 12
15	15

## Technical and Semi-Professional Curriculums

There is a growing demand for practical curriculums which do not lead to graduation, but are designed to give the student the background of skills needed for entrance into his chosen vocation. These curriculums appeal to returning veterans and many others. They may consist of very few or many courses requiring one or more semesters to complete them. The courses composing these short curriculums vary to fit the background and needs of the student concerned. For such mature students there are no scholastic entrance requirements. In some cases such students may register under the extension division.

The following types of curriculums are being offered. In all curriculums the series of courses composing them will be planned under the direction of the head of the department concerned.

*Agriculture.* Courses will be planned to give students proficiency in Dairy Husbandry, Swine Production, Poultry Husbandry, Agricultural Mechanics, Agronomy, Irrigation, Vegetable Crops, and in other subjects if there is sufficient demand. Certain courses like milk processing, grain milling, and meat packing may be offered through the cooperation of established business concerns. See the description of practical courses in the Department of Agriculture under the heading, Applied Agriculture.

*Courses In Art.* A series of courses will be offered in each of the following types of Art: Crafts, Vocational Arts, and Fine Arts.

*Business Courses.* Individual courses or a sequence of courses will be offered to fit the needs of the individual in Bookkeeping, Accounting, Office Machines, Stenography, and Secretarial Office Practice. See the descriptions in the Department of Agriculture.

*Industrial Arts.* Individual courses and courses in series are offered in each of the following: Electricity, Drawing, Building and Construction, Mechanics, Aircraft Engines and Maintenance. See descriptions under the Department of Industrial Arts.

*Foreign Languages.* Single courses or a sequence of courses may be offered in Spanish, French, and German.

*Home Economics.* For practical work in various phases of Home Economics a sequence of courses is offered making short curriculums of one or more semesters.

## Orientation Convocations

A series of lectures and panel discussions designed to orient the new student to college. Directs the student's plan to achieve intellectual, social and personal competence from the college program. Required of all first semester freshmen. One hour weekly. Without credit. Dean Sayre and staff.

# Department of Agriculture

JUDD (Head of the Department), OSTRANDER, MORTENSEN

*Purposes.* The Department of Agriculture is organized for the following purposes: (1) to give students who plan to teach in rural communities a knowledge of agricultural problems; (2) to provide a broad foundation for those who later wish to study in specialized fields of agriculture at other institutions; (3) to offer courses in applied agriculture to meet the needs of civilians and veterans expecting to enter the production and industrial fields of agriculture. This provides a program for vocational rehabilitation meeting the needs of those desiring special work in agriculture and farm mechanics.

The courses offered for (1) and (2) include the generally accepted standard prerequisites for advanced study and research in all phases of agriculture. Many of these courses are prerequisites for appointment in various biological surveys, soil and game conservation, and other Federal projects.

*Applied Agriculture.* Practical courses designed to meet the needs of both civilians and veterans as indicated in item three above are offered. These courses are offered with the cooperation of the Veterans' Administration and the State Department of Vocational Education. These practical courses aim to give the student proficiency in the particular job or phase of work chosen. A full course runs twelve months and requires about six hours of work daily. Fractional courses may also be taken. These courses numbered from 1 to 99 do not give college credit. Those desiring college credit must register for the regular college courses numbered 100 or above.

The following non-credit courses have been approved by the Veterans' Administration and will be offered by the College: Armature Winder, Repair; Auto Mechanic Helper; Automobile Body Re-

pairman, Metal; Batteryman, repairman; Carpenter Apprentice; Dairy Farmer; Dairy Farm Hand; Milk Tester; Farmer, cash grain; Farm Hand, General; Hay Farmer; Hog Raiser; Irrigator; Milker, hand; Milking Machine Operator; Pasteurizer, Milk tester; Pasteurizer Assistant; Poultry Farmer; Truck Gardener.

Classes in Farm Management, Farm Records, Feeds and Feeding, Range Management, and other classes will be organized when needed. Through the cooperation of business concerns, instruction in processing milk products, grain milling, ginning of cotton, and meat packing may be offered. In these courses formal class instruction is reduced to a minimum, being provided largely through consultations and on-the-job visits.

The enterprises of the College Farm will serve as training centers. In general, a minimum of one year should be devoted to most of the courses. However, the length of courses may need to be modified to fit the backgrounds and abilities of the students.

*4-H Club Leaders.* Students majoring in another department may qualify also as teachers of elementary science and agriculture and as 4-H club leaders in the elementary schools by completing a minor in this department.

*The Livestock Farm.* The farm is located a mile south of the campus, on a thirty-five acre tract with a modern farm home, new dairy buildings and equipment, and a modern hog unit. A selected herd of registered dairy cows supplies milk for the college dining hall. This herd, with the registered sheep and swine herds, provide excellent opportunities for students to gain first hand information and experience in livestock problems.

*Sequences First and Second Year.* First Semester: \*Biol. 130, 140, \*Ag. 107, 123, \*Chem. 111, Biol. 203, Ag. 125, I. A. 108. Second Semester: \*Biol. 140, or 130, \*Ag. 108, \*Chem. 112, 180, Ag. 116, 114, 126.

*Sequences Third and Fourth Year.* First Semester: Biol. 133, Ag. 185, 143, 213, 219. Second Semester: Biol. 134, Ag. 186, 246, Biol. 204, Ag. 144, 222, 224, 216.

\*Courses starred are foundation courses. Students not wishing the regular curriculum in agriculture, yet desiring a major or a minor in it, may select courses under the guidance of the head of the department. The major consists of a minimum of twenty-four hours.

## Courses In Agriculture

*Ag. 107 Animal Industry.* A study of farm animals, their breed history, management, feeding, judging, and marketing. Emphasis is laid on sheep, beef cattle, dairying, swine, and poultry culture. Fee, \$1.00. Four hours lecture, or its equivalent in laboratory and field work. Credit, 4 hours.

*108 Plant Industry.* Topics studied are: the development of permanent agriculture; basic principles of plant growth and improvement; factors involved in profitable crop production; leading crop plants and producing areas; cultural methods; harvesting, storing, and marketing of field crops. Fee, \$2.00. Three lectures and three hours of laboratory or field work per week. Credit, 4 hours.

*109 Agricultural Mechanics.* Maintenance, operation and repair of farm machinery, including automotive equipment. Fee, \$1.00 per semester hour. Equivalent of 1 hour of lecture or 3 hours of laboratory per credit hour. Credit, 1 to 4 hours.

*114 Dairy Husbandry.* A study of dairy farm management; methods of feeding, breeding and herd improvement; pedigree and other methods of animal selection; calf raising and dairy equipment; and the more common dairy cow diseases. Fee, \$1.00. Three hours of lecture or its equivalent in dairy survey and field work. Credit, 3 hours.

*116 Poultry Husbandry.* Includes the general principles of poultry management in large and small units, and the application of these principles to local and regional conditions. Alternates with Ag. 114. Three hours of lecture or its equivalent in field work. Credit, 3 hours.

*124 Vegetable Crops.* Areas of production and cultural practices of the leading vegetable crops of the U. S. Special emphasis on the year-round home vegetable garden. Prerequisites: Ag. 108 and Biol. 130. One lecture, and three hours field work. Credit, 3 hours.

*125 Principles of Horticulture.* The general principles of plant propagation. Nursery practices in the production of fruit and ornamental stock. Planting and care of orchards and home grounds. Prerequisite: Biol. 130. Fee, \$1.00. One lecture and three hours of laboratory or field work per week. Credit, 2 hours.

*126 Practical Horticulture.* A continuation of Ag. 125 with emphasis upon ornamental trees and shrubs, flowering plants, and landscaping. Prerequisite: Ag. 125. Fee, \$1.00. One lecture and three hours of laboratory or field work per week. Credit, 2 hours.

*Biol. 130 General College Botany.* See description under Biology.

*Biol. 133 Plant Anatomy.* See description under Biology.

*Biol. 134 Plant Physiology.* See description under Biology.

*Biol. 140 General Zoology.* See description under Biology.

143 *Soils.* The formation, classification, and properties of soils; the relation of the properties of soils to crop production; cultural practices in soil conservation. Prerequisite: one course in college chemistry. Fee, \$2.00. Two lectures and three hours laboratory work per week. Credit, 3 hours.

144 *Irrigation Principles and Practices.* A continuation of Ag. 143. Brief history of irrigation; present extent and importance; water relations of crop plants; water measurements; and methods of application, conservation and use of irrigation water. Prerequisite: Ag. 143. Fee, \$2.00. Three lectures per week. Credit, 3 hours.

185 *Animal Nutrition and Applied Feeding.* Includes the principles of feeding, composition of feeds, physiology of nutrition, and practice in formulating rations for various classes of livestock. Evaluation of feeds and feeding practices current in Arizona. Prerequisite: Ag. 107 and one year of college chemistry. Fee, \$2.00. Three lectures per week. Credit, 3 hours.

186 *Farm Organization and Management.* Principles governing the economic and regional selection of the farm. Factors involved in profitable farm management; crop selection and acreage; diversification of effort; capital utilization; cost accounting; rural bookkeeping and analysis of labor income. Fee, \$2.00. Three lectures per week. Credit, 3 hours.

*Biol. 183 General Bacteriology.* See description under Biology.

*Biol. 204g, 204ag Genetics.* See description under Biology.

212 *Commercial Vegetable Crops.* Soil practices, cultural methods, harvesting and marketing of leading truck crops of the Southwest. Alternates with Ag. 123. Prerequisite: Ag. 130. One lecture and six hours field work. Credit, 3 hours.

213g *Plant Ecology.* Origin and development of vegetation and measurements in the field of the factors of environment with applications to agriculture, forestry, grazing, and general crop production. Prerequisite: Biol. 130. Fee, \$2.00. Three lectures and one laboratory period per week. Credit, 4 hours.

216g *Plant Breeding.* The principles and practices of plant breeding; technique and improvements by selection and hybridization. Prerequisites: Ag. 108, Biol. 130, 204. Fee, \$2.00. Three lectures a week. Credit, 3 hours.



The Lyceum is a center for cultural activities . . . gallery and lounge





Music and Art Departments offer wide opportunities for participation in cultural activities



**219g Animal Breeding.** The principles of genetics are applied to the problems and techniques of animal breeding. Includes the study of pedigrees, line-breeding, inbreeding, out-cross, hybridization, and breeding indices. Prerequisites: Biol. 140, 204. Three lectures per week.

**Biol. 222 General Entomology.** See description under Biology.

**Biol. 224g Animal Ecology.** See description under Biology.

**Ag. 246 Range Management.** Development of the range industry; grazing regions; production and utilization of range forage; range improvement; range reconnaissance and management plans; the principal range plants of Arizona; and field trips in cooperation with the U. S. Forest Service. Prerequisites: Ag. 107, Biol. 130. Fee, \$5.00. Two lectures and one three-hour laboratory period per week. Credit, 3 hours.

**290 Special Problems Or Advanced Laboratory.** Students desiring to do advanced laboratory work, or to make a special study of any particular problem, will make a complete study of available literature on the problem, under the supervision of the instructor, and will write a report. Credit, 1 or more hours.

**390 Individual Problems.** Designed to meet the needs of those students wishing to investigate a problem of their own in Agriculture. Time and credit to be arranged.

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## Department of Art

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KLOSTER (Chairman), HARTER

The work of this department is designed to meet the needs of four groups of students.

1. The major in Art Education is planned for those who wish to teach or supervise art in the public schools.
2. Students who wish to take a major in Art but who plan to enter some vocational art field rather than teaching may select either fine and decorative arts or commercial art.
3. Students who wish to take art courses for their own enjoyment or as an aid to classroom teaching and school club work will find several courses open to them.
4. Short term courses in art are also possible. Such a short term course may be completed in one of the vocational arts as follows:

commercial art, industrial design, costume design, interior design, and crafts. Likewise, in the fine arts, painting, modeling, and sculpture, a short term course is offered. Time required to complete such a program varies from one to four semesters of work. Please see the description of short-term courses found in the section of the catalog entitled Technical and Semi-professional Curriculums. Confer with the head of the Department of Art on the program of courses to be pursued.

## Majors and Minors

Excepting the General Major, all majors in Art require thirty semester hours and at least twelve hours must be in upper division courses. All minors require fifteen semester hours; seven hours should be in upper division courses. All freshmen who elect an art major should enroll for Art 103 and 105 in the first semester and 106 in the second semester. These courses are considered basic for all art major curricula with the exception of commercial art.

*In Art Education.* The following courses are required for the major: Art 103, 105, 106, 112, 200, 215. The remaining hours may be selected according to the individual's interests. For the minor, it is suggested that courses be selected from the following: Art 103, 105, 106, 112, 114, 115, 120, 215, 225, 228.

*In Fine and Decorative Arts.* For the major, the following courses are required: Art 103, 105, 106, 114, 215. For the minor, the following courses are suggested: Art 103, 105, 106, 215, in addition to electives to make a total of fifteen semester hours.

*In Commercial Art.* The following courses are required both for the major and the minor: Art 103, 105, 121, 122, 201. All other courses are electives.

*In General Art.* This major is planned for those desiring a general background in Art. It consists of twenty-four hours selected to fit the needs of the student. The minor consists of fifteen hours chosen to fit the student's needs.

*Laboratory Requirements.* All laboratory courses are planned to require three hours work per week for each semester hour earned.

## Description of Courses In Art

*Art 101 Introduction to Art.* A study, including analysis of painting, sculpture, and architecture, to develop comprehension and appreciation of the fine arts. Some laboratory experience will be given. Fee, \$1.00. Credit, 2 hours.

102 *Drawing and Perspective.* General drawing in addition to the principles in elliptical, parallel and angular perspective. Fee, \$1.00. First year, second semester, four hours a week. Credit, 2 hours.

103 *Life Drawing.* A study of the basic construction of the human figure with emphasis on solidity and proportion. Fee, \$2.00. First year, first semester. Credit, 3 hours.

105 *Color and Design.* The scientific basis of color, the properties of color and combinations producing harmony. Fee, \$1.00. First year, first semester, four times a week. Credit, 2 hours.

106 *Creative Design.* A modern approach to the field of design. Designing from the volume; surface enrichment of forms; a study of texture; creative pattern in rugs, drapery, wall paper, and dress prints. Fee, \$1.00. First year, second semester, four hours a week. Credit, 2 hours.

114 *Water Color.* Painting in opaque and transparent water color. Landscape, still life, and figure. Prerequisites for art majors: Art 102, 103. Fee, \$1.00. Each semester, six hours a week. Credit, 3 hours.

115 *Clay Modeling.* Modeling is an art medium which has universal appeal. Fun may be had in modeling amusing, serene, or grave figurines. An introduction to pottery. Glazing and firing. Fee, \$4.00. Second year, first semester, four hours a week. Credit, 2 hours.

120 *Allied Crafts.* A laboratory course dealing with special problems in leather, metal, weaving, toy making, marionettes, book binding, and textile printing. Fee, \$4.00. Second year, first semester, six hours a week. Credit, 3 hours.

121 *Lettering.* Fundamentals of construction, spacing and arrangement of basic Roman and Gothic letters. Modern uses of lettering. Required for commercial art majors. Fee, \$1.00. Each semester, four hours a week. Credit, 2 hours.

122 *Commercial Art.* An introductory course. Problems identical with those solved by professional commercial artists. Prerequisite: Art 121. Fee, \$1.00. Second semester, four hours a week. Credit, 2 hours.

201 *Advertising Design.* An analysis of design problems peculiar to the various types of advertising: labels, poster, direct mail, window and counter display, magazine and newspaper advertising. Problems identical with those given the professional advertising designer. Fee, \$1.00. First semester, four hours a week. Credit, 2 hours.

202 *Survey of Advertising Art.* A thorough description of all phases of advertising production including advertising agency pro-

cedure, typography, reproduction processes, printing, lithography. Visits to local business concerns and studios. Fee, \$1.00. Second semester, four hours a week. Credit, 2 hours.

203-a *Advanced Lettering*. A continuation of Art 121 with emphasis on arrangement and spacing. Fee, \$1.00. Each semester, two hours a week. Credit, 2 hours.

203-b *Advanced Lettering*. Special problems. Recommended only to those having professional interest in lettering. Fee, \$1.00. Each semester, two hours per week. Credit, 2 hours.

204 *Costume Design*. Fashion rendering, sketching, fashion prediction and creation. A survey of manufacturers, retailers, designers and illustrators of fashion. Prerequisites for art majors: Art 103, 105, 114. Fee, \$1.00. Third year, second semester, four hours a week. Credit, 2 hours.

206g *Sculpture*. Modeling in the round and in relief, casting and mold-making, carving, applying finish. Prerequisites for art majors: Art 103, 106. Fee, \$4.00. Second semester, four hours a week. Credit, 2 hours.

208 *Industrial Design*. Advanced design from present-day industrial and commercial angles. Includes modern packaging. Renderings and models. Prerequisites: Art 105, 106, 121. Fee, \$1.00. Second semester, four hours a week. Credit, 2 hours.

210 *Public School Art*. General art requirement. A course for teachers emphasizing tools and procedures, art principles and modern ways of directing art activities. Fee, \$2.00. Second year, either semester, four hours a week. Credit, 2 hours.

212 *The Teaching of Art*. Required of all art education majors. A continuation of Art 210 with emphasis on instructional methods, materials and procedures of importance to the teacher of art in Arizona schools. Prerequisite: Art 210. Two hours a week. Credit, 2 hours.

214 *Advanced Water Color*. Continuation of Art 114, with more advanced problems. Fee, \$1.00. Each semester, four hours a week. Credit, 2 hours.

215 *Art History*. A comprehensive survey of art emphasizing the manner in which art reflects and interprets a people and a period. Fee, \$1.00. First semester, three hours a week. Credit, 3 hours.

217 *Advanced Clay Modeling*. Progressive problems in modeling. The student may elect work in pottery using the wheel or in ceramic sculpture. Special study in the preparation of glazes. Prerequisite: Art 115. Fee, \$4.00. First semester, four hours a week. Credit, 2 hours.

218 *Advanced Commercial Art.* The student may specialize in any field of commercial art which interests him. Prerequisites: Art 103, 105, 121, 201, or equivalents. Second semester, four hours a week. Credit, 2 hours.

220 *Advanced Crafts.* A continuation of Art 120 with opportunity to do advanced special problems in the crafts. Prerequisite: Art 120. Fee, \$4.00. Either semester, six hours. Credit, 3 hours.

221 *Advanced Life Drawing.* Emphasizing detailed structure of heads, hands, and feet, as well as full figure. Quick sketch and memory sketch as well as longer poses. Various mediums. Fee, \$2.00. First semester, six hours. Credit, 3 hours.

225 *Art Curriculum and Supervision.* Art problems and methods for elementary and high schools; the relationship of the art supervisor to principal, art teacher, and classroom teacher; analysis and planning of art courses of study. Prerequisites: Art 210, 212. Fee, \$1.00. Fourth year, one semester, two hours a week. Credit, 2 hours.

226g *Contemporary Art.* Surveys contemporary art in America and abroad emphasizing the aims and tendencies in expression with a study of the major artists and their accomplishments. Fee, \$1.00. Second semester, two hours a week. Credit, 2 hours.

228 *Oil Painting.* Sketching excursions as well as indoor painting. Landscape, still life, and figure. Emphasis on interpretations of the local scene. Prerequisite: consent of instructor. Fee, \$1.00. Either semester, six hours a week. Credit, 3 hours.

238g *Advanced Oil Painting.* Continuation of Art 228. Preparation of canvas and gesso grounds, and a study of techniques. Either semester, six hours a week. Credit, 3 hours.

240g *Interior Design.* A study of modern housing, coordinated planning in decorating the small house with emphasis upon modern ways of achieving a feeling for space. Renderings of floor plans, elevations, and interior sketches. The construction of miniature models to scale. Fee, \$1.00. Six hours a week. Credit, 3 hours.

290 *Special Problems.* For upper division students who have completed most of their course work. Designed to encourage initiative and to develop the capacity to do independent work in fields of special interest. Credit and hours to be arranged.

390 *Individual Problems.* Open to graduates only. Meets the needs of students wishing to explore and experiment in various creative art fields, or to investigate special problems in art education. Credit and hours to be arranged.

# Department of Commerce

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SWANSON (Head of the Department), BUNTE, BURTON, HILKERT

*The Department of Commerce* offers courses to meet the needs of four groups of students: (1) Those preparing for business as a career. (2) Those preparing to teach commerce or business subjects in public secondary schools. (3) Those preparing for elementary certification and desiring to take certain commerce courses as electives. (4) Those pursuing self-defined objectives and registered as special or irregular students.

Students preparing for business careers may choose courses for majors and minors to fit their special interests in Accounting, Business Administration, Merchandising, or Secretarial Science. If graduation and a degree is sought, they must meet general and core-curriculum requirements for graduation from the institution as well as the requirements of the particular curriculum selected.

Students preparing to teach commerce or business subjects in secondary schools will complete requirements for the Arizona pre-secondary or secondary certificate, or the special certificate in Commerce. Completion of these requirements will include the commerce courses that comprise the secondary commercial teacher-training major.

The Arizona secondary certificate calls for a fifth year of study. Students preparing for this certificate should plan a five-year program of study under the guidance of the head of the department, and with the joint-guidance of the head of the department and the Director of Graduate Study if the Master's degree is desired. The Arizona special certificate in Commerce may be obtained in four years. It entitles the holder to teach commerce subjects only.

Some students preparing for regular elementary certification plan their programs so that by taking commerce they are able to complete regular majors or minors. These students should be particularly careful in their selection of courses. In most cases, the emphasis should be on economics and general business courses.

Special and irregular students, who for economic or other reasons wish to pursue personal and self-defined objectives through taking only a few courses or a specialized sequence of courses offered in the commerce department, will be given guidance and help in accordance with their interests and objectives. Of course, it should be understood that if such special or irregular students later decide to pursue graduation and a degree, they must be prepared to meet and satisfy

all general and core-curriculum requirements for graduation from the institution as well as the requirements of the particular curriculum selected.

## Majors and Minors

A major in the commerce department consists of twenty-four to thirty semester hours, depending upon the curriculum selected. A minor consists of fifteen semester hours. Students pursuing a major in the commerce department are expected to complete a minimum of six semester hours in economics. All declared majors and minors must be approved by the individual student's adviser and cleared through the head of the department.

*For Business Pursuits.* Students primarily interested in training for business careers may major in Accounting, Secretarial Science, Merchandising (not offered in 1945-1946), or General Business Administration. The first three named are technical and specialized curriculums, while the fourth is a general-type curriculum allowing considerable flexibility and designed to meet the needs of the students who simply desire general business training. A business student majoring in any one of these four fields may declare his minor in any of the others. It is possible for the student not desiring teacher certification to major in Accounting and minor in Secretarial Science. Such students will select and follow the "General Curriculum" (described in the sections of the catalog given over to Curriculums). No student teaching and only fifteen semester hours of education and psychology are required. This curriculum leads to the degree of Bachelor of Arts in Education, but not to any type of teacher certification. If a teacher's certificate is later desired, the student must be prepared to complete all requirements of the teacher training curriculum he selects. It is possible for a student who is interested in one of these specialized business curriculums to complete at the same time the requirements for the secondary commercial teacher training major. He can accomplish this two-fold objective through careful use of electives and through taking a few extra courses. The requirements for majors and minors are given below.

*Accounting.* The major requires a minimum of thirty-six semester hours in the commerce department, including a minimum of thirty semester hours in accounting courses. Required courses: Accounting, thirty hours, Com. 101, 102, 201, 202, 203, 204, and such other courses as the adviser in accounting may require; Business Law, six hours, Com. 205, 206. Accounting majors must also take Economics (Com. 131, 132); credit to be applied in the minor or as electives. Accounting majors are urged to take Psych. 211. The

minor requires a minimum of fifteen semester hours, including Com. 101, 102, 201, 202.

*Secretarial Science.* The major requires a minimum of thirty semester hours in the commerce department, including fifteen semester hours in secretarial science courses. Required courses: Secretarial Science, 15 hours, Com. 110 (or equivalent training), 113, 114 (or equivalent training), 120, 233, 235, 236, 241, 242 (2 hours only); Accounting, 8 hours, Com. 101, 102; General Business Administration, 6 hours, Com. 130, 205. The minor requires a minimum of fifteen semester hours, including Com. 110 (or equivalent training), 113, 114 (or equivalent training), 120, 235, 236.

*Merchandising.* (Not offered in 1945-1946). The major requires a minimum of thirty semester hours in the commerce department, including twelve semester hours in merchandising courses. Required courses: Merchandising, 12 hours, Com. 171, 173, 275, 277; Accounting, 8 hours, Com. 101, 102; General Business Administration, 9 hours, Com. 130, 131, 205. The minor requires a minimum of fifteen semester hours, including Com. 105, 106, 227.

*General Business Administration.* The major requires a minimum of twenty-four semester hours in the commerce department, including twelve semester hours in general business and economics courses. Required courses: General Business and Economics, 12 hours, including Com. 131, 132, 205, 215; Accounting, 8 hours, Com. 101, 102. The minor requires a minimum of fifteen semester hours in the commerce department, including nine semester hours in general business and economics courses. Required courses: Com. 130, 131.

*For Secondary Teaching.* Students primarily interested in teaching commerce or business subjects in secondary schools will complete requirements for the Secondary Commercial Teacher Training Major. All commercial teacher training students—those pursuing the Arizona secondary certificate, those pursuing the pre-secondary certificate, and those pursuing the Arizona special certificate in Commerce—must meet these minimum requirements. Prospective Arizona commercial teachers, as well as their prospective employers, will find that their interests and needs have been given careful consideration in setting up the minimum requirements for this major. Attention has been given to factors of breadth of training, specific teaching power, and employability as related to Arizona public high schools. No student will be recommended for a commerce student teaching assignment who has not given satisfactory evidence of teaching skill and knowledge in bookkeeping, typewriting, shorthand, business law, and such other subjects as are usually taught in Arizona

secondary schools. Completion of one semester's work in commercial teaching methods is prerequisite to a commerce student teaching assignment.

*Teacher Training Major and Minor.* The secondary commercial teacher-training major requires a minimum of thirty-six semester hours in the commerce department and four semester hours in professional commercial teacher training courses. Required courses: Secondary Commercial Teacher Training, 4 hours, Com. 251, 252; Accounting, 14 hours, Com. 101, 102, 201, 202; Secretarial Science, 9 hours, Com. 113, 114 (or equivalent training), 120, 235, 236; Merchandising, 3 hours, Com. 171 or 173; General Business Administration, 9 hours, Com. 130, 131, 205. The secondary commercial teacher-training minor requires a minimum of fifteen semester hours in the commerce department, including a carefully-selected sequence of courses (minimum of nine hours) in any one of the areas of emphasis: Accounting, Secretarial Science, Merchandising, or General Business Administration.

## Two-Year Curriculums and Short Courses

In addition to the four-year curriculums of preparation for business pursuits and the four-year and five-year curriculums of preparation for high school commercial teaching, two two-year curriculums are available allowing for emphasis either in bookkeeping and accounting or in stenography. Use is made of the same technical courses that are included in the basic commerce offering, but programs of study are planned for the advantageous use of two years of time. Usually these programs are strictly vocational and technical in nature, but there is opportunity for considerable flexibility in planning for individual students. Many students, especially those who have taken commercial work in high school, have found it possible to register for one-year programs of specialized study that are valuable and advantageous to them.

## Training for Veterans

Since September, 1939, the commerce department has offered special wartime training courses, including two intensive one-year programs, one in stenography and the other in bookkeeping and accounting. Now the commerce department stands ready to serve and is prepared to offer vocational training for returning war veterans. A sincere effort will be made to provide offerings consistent with the demand as it develops. Returning veterans are invited to investigate the offering and to consult with faculty members in the department.

## Advisers and Guidance

A sincere effort is made to determine the interests, aptitudes, and needs of all students who take course work in the commerce department. Standardized tests of various types, as well as interviews, are utilized in this effort. The classwork in certain courses, the programs of organization meetings, the bringing in of guest speakers, the regular office hours of faculty members—all contribute to the accomplishment of our vocational guidance and counseling objective. Department advisers are as follows: Accounting and pre-legal, Hilkert; Secretarial, Swanson; Merchandising, Swanson; General Business Administration, Burton; Special and Irregular students, Swanson and Hilkert; Secondary Commercial Teacher Training, Swanson.

*Certified Public Accountants.* The courses in accountancy are designed to prepare students for the examination required under the laws of the State of Arizona for the issuance of a Certified Public Accountant's certificate. Examinations are given in May and November of each year by the Arizona State Board of Accountancy. Further information may be obtained by consulting Mr. Hilkert, who is the adviser in accounting.

## Description of Commerce Courses

### Accounting

Com. 101, 102 *Elementary Accounting.* A beginner's course in the field of bookkeeping, accounting, and business administration. Principles and theories of modern accounting procedure. Covers the entire bookkeeping cycle and preparation of the more common types of business reports. Required of all majors in the Commercial Department. Three lectures and two hours of laboratory a week. Credit, 4 hours each.

103 *Social Security and Payroll Accounting.* This course covers the entire social security and payroll accounting procedure of the average business. Both the legal and accounting requirements of social security legislation are studied with respect to taxes, benefits payable, merit ratings, personnel control, personnel and compensation records, unemployment insurance, time keeping, and payroll records. Prerequisites: Com. 101, 102 or equivalent. Three lectures a week and problems. Credit, 3 hours.

141 *Business Mathematics.* Instruction and practice in the fundamental operations—interest, discount, ratios, and related topics. Required of all majors in the Commerce Department who are deficient

in the fundamentals of arithmetic. First semester, twice a week. Credit, 2 hours.

142 *Mathematics of Accounting.* A study of annuities, debt amortization, bond price and valuation, and the algebraic equations used in income tax and in consolidated balance sheet problems. Prerequisite: Com. 141 or equivalent. Second semester, twice a week. Credit, 2 hours.

177 *Bookkeeping and Accounting Machines and Clerical Practice.* Operation of selected business machines and their adaptation to techniques and uses in various types of bookkeeping and accounting work, including special laboratory practice. Prerequisites: Com. 101, 102. Fee, \$4.00. Credit, 2 hours. Not offered in 1945-1946.

201, 202. *Intermediate Accounting.* An intensive study of corporations and corporation accounting, tangible and intangible assets, liabilities, funds and reserves, comparative statements, analysis of working capital, miscellaneous ratios, and statement of application of funds. Three lectures a week and problems. Credit, 3 hours each.

203g, 204g. *Advanced Accounting.* Partnership organization, dissolution and liquidation. Also venture accounts, statements of affairs, receiver's accounts, home office and branch accounts, parent and subsidiary companies, consolidated balance sheets and profit and loss statements, foreign branches and subsidiaries, estates, and trusts. Prerequisites: Com. 101, 102 or equivalent. Three lectures a week and problems. Credit, 3 hours each.

207g. *Auditing Theory and Practice.* Fundamental principles of audit practice and procedure, verification of the balance sheet and the profit and loss items, preparation of working sheets, and the compilation of audit reports. Prerequisites: Com. 101, 102 or equivalent. Three lectures a week and case problems. Credit, 3 hours.

208g. *Cost Accounting.* A study of the theory of cost accounting and the various cost find systems including specific order costs, process costs, standard costs, and estimate costs. The business routine, as well as the cost accounting procedure, is studied. Preparations of the various cost statements and reports. Prerequisites: Com. 101, 102 or equivalent. Three lectures a week, problems and practice sets. Credit, 3 hours.

209g. *Governmental and Institutional Accounting.* Application of basic accounting principles and budgetary control to various governmental units—city, county, and state—and to public institutions. Includes a study of funds, revenues, expenditures, municipal balance sheets and annual financial reports. Prerequisites: Com. 101, 102

or equivalent. Three lectures a week and problems. Credit, 3 hours. Not offered in 1945-1946.

210g. *Income Tax—Federal and State.* A study of the federal and state income tax laws and training in the preparation of various income tax returns including returns for corporations, partnerships, fiduciaries, and individuals. Prerequisites: Com. 101, 102 or equivalent. First semester, three lectures a week and cases. Credit, 3 hours. Not offered in 1945-1946.

211g, 212g. *Seminar in Accounting.* The student is permitted to select a special field of accounting in which he is particularly interested such as chain-store accounting, automobile dealer's accounting, public accounting, etc., and to pursue individual study and/or research in that field. Open only to accounting majors. Prerequisite: approval of instructor. Conference hours arranged. Credit, 1 to 3 hours.

Note. A laboratory fee of 50 cents is charged for each accounting course excepting Com. 177, but the maximum laboratory fee in any semester, regardless of the number of accounting courses taken, is one dollar.

### General Business Administration

Geog. 101 *Economic Geography.* See Department of Sciences for description. May be included in meeting course requirements for majors in the commerce department.

Econ. 130. *Introduction to Economics.* Elementary survey of economic problems. Each semester, three times a week. Required course in the Teacher Education curriculums. Credit, 3 hours.

131 *Economic Principles.* Evolution of scientific principles of economic theory. Second semester, three times a week. Credit, 3 hours.

132 *Current Economic Problems.* Application of scientific principles underlying economic activity to present-day conditions. Prerequisite: Com. 131 or equivalent.

185 *Personal Financial Management.* Problems in personal finance relating to earning, budgeting, saving, buying, investing, lending, borrowing, and use of credit services. Credit, 3 hours. Not offered in 1945-1946.

205, 206 *Business Law.* A study of the legal situations most frequently encountered in everyday life: contracts, sales, agency, partnerships, corporations, negotiable instruments, personal property, real property, and federal and state regulation of business. The practical application of the law is presented especially as it applies to

**Arizona.** The origin and development of law and its social aspects are studied. Three times a week. Credit, 3 hours each.

**Hist. 209 *Economic History of the United States.*** See Department of Social Studies for description. May be included in meeting course requirements for majors in the commerce department.

**214g *Consumer Economic Problems.*** Analytic study of present-day economic problems of the individual consumer, including consideration of the fundamental issues involved in consumer education. Includes, also, a survey of professional books, periodicals, and other published materials having to do with the general problem of consumer education. Prerequisites: Com. 130, 131 or equivalent. Offered summers only. Credit, 3 hours.

**215 *Business Organization and Management.*** Practical study of basic forms of business organization and types of management. Prerequisites: Com. 130, 131 or equivalent. Credit, 3 hours.

**217g *Money and Credit.*** Study of the function of money, monetary systems, credit functions and facilities, banking policies and practices, and the relation of money, credit, and prices to the business cycle. Prerequisites: Com. 130, 131, or equivalent. Credit, 3 hours. Not offered in 1945-1946.

**219g *Labor Relations.*** Study of the strength and weaknesses of wage earners in modern society. Emphasis is on a factual background for a critical appraisal of problems confronting labor and capital as well as legislation and administrative regulations affecting employers and employees. Prerequisites: Com. 130, 131 or equivalent. Credit, 3 hours.

**220g *Investments.*** Analysis and evaluation of securities offered by national, state, and municipal governments, public utilities, railroads, industrial concerns, banks, insurance companies, and trusts. Consideration also of business cycles, currency problems, and governmental action in their relation to the position of the investor. Prerequisites: Com. 130, 131 or equivalent. Credit, 3 hours. Not offered in 1945-1946.

**221g *General Insurance.*** Survey of coverages available, efficient buying methods, procedures followed in settlement of claims, types of insurance companies, and vocational opportunities in the field. Prerequisites: Com. 130, 131 or equivalent. Credit, 2 hours. Not offered in 1945-1946.

**225g *Current Economic and Social Problems.*** Study of economic basis of present-day social problems, industrialization and its relation to family income and distribution, position of the government in

alleviating and removing causes of social distress, and programs of social reform. Prerequisites: Com. 130, 131 or equivalent. Offered summers only. Credit, two hours.

239g *Office Management*. Basic principles and general practice in the organization and administration of the clerical function, including consideration of office-management practices in government, business, and industry. Credit, 2 hours. Not offered in 1945-1946.

262g *Contemporary Economic Systems*. Study of economic aspects of communism, fascism, Nazism, laissez-faire capitalism, and regulated capitalism. Advantages and disadvantages of the various systems considered with reference to the welfare of the peoples of all nations. Prerequisites: Com. 130, 131 or equivalent. Credit, 2 hours.

### Merchandising

171 *Salesmanship*. Study of the basic principles of salesmanship applicable both to the selling of merchandise and the creation of a favorable personal impression in any field of endeavor. Selling problems and situations analyzed in terms of arriving at practical and desirable solutions. Three times a week. Credit, 3 hours.

173 *Marketing and Distribution*. A general and critical survey of principles, trends, and practices related to present-day marketing and distribution. Prerequisite: Com. 130 or equivalent. Three times a week. Credit, 3 hours.

275 *Advertising*. An introductory study of advertising theory and practice in relation to principles of marketing and general business management. Prerequisite: Com. 171. Credit, 3 hours. Not offered in 1945-1946.

277g, 278g *Retail Merchandising*. Study of the organization and management of retail stores, with appropriate consideration of both principles and methods. Prerequisites: Com. 130, 171 or equivalent training and experience. Three times a week. Credit, 3 hours each.

### Secretarial Science

110 *Techniques in Typewriting*. Fundamentals of touch typewriting with appropriate emphasis upon technique and elementary application. Fee, \$2.00. Both semesters, daily. Credit, 2 hours.

113, 114 *Elementary Shorthand*. Principles of Gregg Shorthand. Some dictation and transcription included in the work of the second semester. Prerequisite: Com. 110 or equivalent training. Fee, \$1.00. Daily. Credit, 3 hours each.

120, 121 *Projects in Typewriting*. Advanced instruction in applied typewriting with emphasis upon the attainment of speed and accuracy as well as other skill requirements appropriate to production work in a modern office. Students having college credit in elementary typewriting may take only Com. 120 for credit. Prerequisite: Com. 110 or equivalent training. Fee \$2.00. Daily. Credit, 2 hours each.

165 *Secretarial Bookkeeping*. Special short course in bookkeeping adapted to the needs of stenographic and secretarial office workers. Credit, 3 hours. Not offered in 1945-1946.

233 *Business Correspondence*. Business writing as effectively applied in various forms of business communication. Includes special consideration of form, layout, and other related mechanical aspects of business communication of particular importance to prospective office employees who have a secondary and supporting relationship to the communication function. Attention given to the planning and writing of application letters. Prerequisites: Eng. 101, 102, Com. 110 or equivalent. Second semester, three times a week. Credit, 3 hours.

235, 236 *Advanced Shorthand*. An advanced course in Gregg Shorthand, beginning with a very brief review of the principles of the system and continuing with graded dictation and transcription. Minimum objective: ability to perform as an efficient stenographer with dictation power of 120 words per minute and transcription power of 25 words per minute. Prerequisites: Com. 113, 114, 120 or equivalent. Fee, \$1.00. Three times a week. Credit, 3 hours each.

238 *Secretarial Problems*. Modern office requirements from the standpoint of secretarial efficiency. Includes special consideration of understandings, attitudes, and appreciations required of the personal or private secretary. Prerequisites: Com. 120, 235 or equivalent. Fee, \$1.00. Credit, 2 hours. Not offered in 1945-1946.

241, 242 *Secretarial Office Practice*. Clerical procedures and laboratory practice related to stenographic and secretarial work. Training in the operation of selected office machines and their adaptation to office needs and procedures, including Ediphone and dictaphone operation, mimeographing and other types of duplication, adding and calculating machine operation. Also includes organized instruction in filing. Prerequisites: Com. 120, 235 or equivalent. Fee, \$5.00. Daily. Credit, 1 to 2 hours each semester.

## Commercial Teacher Training

251g, 252g *Commercial Teaching Methods*. First semester: comprehensive survey of instructional methods and materials related to business subjects usually taught in Arizona public secondary schools. Second semester: critical study of business offerings in public secondary schools, including thorough consideration of the objectives and basic principles of secondary business education. For commercial teacher training majors only. Prerequisites: Com. 102, 114, 120 or equivalent. First and second semester, twice a week. Credit, 2 hours each.

255g *Distributive Education*. Analytic study of the distributive occupations and critical evaluation of the need for distributive education. Includes also consideration of the George-Deen Act and its provisions for Federal aid. For commercial teacher training majors and interested public school administrators only. Prerequisites: Com. 105, 106, 227 or equivalent training and experience. Not offered until Summer Session, 1946.

351 *Practicum in Secondary Business Education*. Problems in organization, administration, and instruction in the field of secondary business education. Attention given to the planning and development of practical or creative projects, either group or individual. Prerequisites: Com. 251, 252 and Education 215, or equivalent training and experience. Registration subject to approval of instructor. Summer Session, 1945. Credit, 1 to 3 hours.

## Individual Problems

Designed to meet the needs of individual students desiring to investigate and study a selected problem. Problems may be selected in Accounting, in General Business and Economics, or in Commercial Teacher Training. Open to graduate students only. Credit and time to be arranged. These courses are numbered 390.

# Department of Education

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BURKHARD (Head of the Department), PAYNE, SKINNER, RICHARDSON,  
SOUTHERN, WORTHY, ROLL, JOHNSON, CASSITY.

The purpose of the Department of Education is to provide candidates for the teaching profession with professional perspective and skill in the techniques of teaching and in the administration of public schools. To accomplish this end, the student is required to pursue courses dealing with the psychology of human nature, the nature of subject matter, and the problems of social reconstruction in the light of democratic social theories. Opportunities for doing student teaching under supervision are provided in the training schools. Students who wish to prepare for rural education are given opportunity to do their student teaching under rural conditions.

## Description of Courses in Education

Ed. 120 *Sociology*. An introductory course in the study of human relationships, human wants, and social institutions. The aim is to discover foundations on which to base a stable and progressive civilization. Either semester. Credit, 3 hours.

201 *Art in the Kindergarten-Primary School*. Considers the philosophy, psychology, and place of art in the kindergarten-primary school. Laboratory work provides opportunity for becoming familiar with materials, developing techniques, and applying them in directed classroom situations. Fee, \$2.00. Third year, first semester. Credit, 2 hours.

202 *Crafts in the Kindergarten-Primary School*. A laboratory course in the creative use of everyday materials as a means of developing individual expression. Paper, clay, textiles, wood, and construction work are used and related to the integrated program. Directed observation and experience with children. Fee, \$2.00. Third year, second semester. Credit, 2 hours.

204 *Language Arts for the Lower Elementary School*. Considers the place of language arts in the contemporary school. A study of those areas dealing with oral and written expression (speech, reading, writing, spelling, literature, etc.) in the integrated program. Special emphasis on the development of techniques for guiding child growth in these fields. Opportunity for observing in the local schools. Third year, first semester. Credit, 2 hours.

207 *Literature for the Kindergarten-Primary Grades.* A broad survey of folk and modern literature for children of the lower elementary school; a study of characteristics and placement of different types; wide reading to familiarize students with sources and to develop discrimination; opportunity for experience with children. Third year, first semester. Credit, 3 hours.

209 *Kindergarten-Primary Curriculum and Teaching Problems.* A study and evaluation of the principles and philosophy underlying teaching in this area. Well-known curriculums will be studied in addition to our state course of study. Curriculum activities will be discussed, developed, and evaluated in actual teaching situations. Equipment, time schedules, reports, and other teaching problems will be studied. To be taken concurrently with student teaching. Fee, 75 cents. Credit, 3 hours.

211g *History of Education.* A survey of the social life, ideas, and institutions that gave direction to western civilization. The purpose is to furnish background for a better understanding and evaluation of present educational and social problems. Three times a week. Credit, 3 hours.

212 *Kindergarten-Primary Play Education and Materials.* Study of spontaneous play, and play materials of young children with special emphasis on the utilization of these interests in plays, games, and rhythms to promote normal child development. Opportunity to work with children. Fee, 75 cents. Third year, second semester. Credit, 3 hours.

214 *Language Arts for the Upper Elementary School.* The student makes a study of the purposes, methods, and materials of the language arts, which include oral and written expression, reading, and spelling in the upper grades. Credit, 2 hours.

215 *Secondary School.* A study of the historical development of the American secondary school: its functions, objectives, problems, and trends. First semester, three times a week. Credit, 3 hours.

216g *Educational Sociology.* A study of education in relation to the social institutions in which individuals gain their experiences. The course will deal with methods of gathering data in social research; with the family as an educational agency; problems of educational reconstruction; social relationships and their educational significance; and techniques for measuring the social results of education. Credit, 3 hours.

218g *Diagnostic and Corrective Reading Techniques.* A study of reading difficulties which are encountered in teaching reading in the

public schools. The difficulties of both the learning and the teaching situations are investigated. The best known techniques of diagnosis and corrective procedure will be studied. Credit, 3 hours.

220g *Arizona School System, Laws, and Records.* The organization and legal setup of the Arizona school system is discussed with special reference to the work of the teacher and administrator. Consideration given to reports and records. Meets the requirement for the administrative certificate. Two times a week. Credit, 2 hours.

228g *Methods of Teaching in Junior and Senior High School.* Objectives of secondary education, methods of planning instruction, socialized procedures, individual differences, testing procedures, individual work in major field. Second semester, three times a week. Credit, 3 hours.

230 *Elementary School Curriculum and Techniques.* Provides the student with understanding of those necessary curriculum factors, such as: contemporary life, scope, concept, and principles of curriculum revision. It includes a study of the various areas of the program and their problems of instruction. Credit, 3 hours.

232 *Introduction to Guidance.* The need, objectives, prevailing practices, and the administration of guidance programs with special emphasis on the development of an adequate guidance program. Credit, 3 hours.

233g *Visual Aids in Education.* A discussion of the principles upon which visual education should be established. An examination and evaluation of the latest materials and methods with demonstrations of the actual use of visual aids in units of work. First semester, two times a week. Credit, 2 hours.

238g *Extra curricular Activities.* A study of the activities in the elementary and high schools that have grown up outside the regular curriculum. Different types of activities, their function, importance, and relationship to the regular school program. Consideration of the problem of adjusting these activities to the school program or of including them in the regular school curriculum. Credit, 2 hours.

250g *Philosophy of Education.* A critical study of social and educational theories. Designed to help the student acquire a perspective of life and its products which will enable teachers to move in the direction of giving excellent professional services to society through the school. Open to seniors and graduate students. Either semester, three times a week. Credit, 3 hours.

260 *Observation and Directed Teaching.* All students taking any curriculum leading to kindergarten-primary, kindergarten-elementary

or elementary certification, observe and teach for a half-day session during the last half of their junior year or first half of their senior year. Students taking curriculums leading to secondary certification or special certification teach for one quarter day instead of a half-day. This teaching is done under trained supervisors in one of the college training schools or in neighboring high schools. Regular class work in school management is included in the requirements for this course. Credit, 10 hours.

264 *4-H Club Organization and Leadership.* A study of 4-H Clubs including their history, scope, plan of organization, and methods. Students enrolled in this course are required to organize and conduct a 4-H Club in collaboration with the personnel of the Extension Department of the University of Arizona. A certificate of proficiency will be granted the student at the completion of the course and a copy filed with the Placement Bureau. Students will confer with the head of the department before enrolling in this course. Both semesters. One hour per week. Credit, 1 hour.

265g *Youth Organizations and Leadership.* A study of the special problems confronting American youth, particularly as they relate to adolescent and pre-adolescent youth. A study of the various character-forming organizations, juvenile problems, and community leadership. An intensive study of one organization and participation in the leadership of such organization. Fee, 50 cents. Third or fourth years, first semester. Credit, 2 hours.

266g. *The School and Community Relationships.* An analysis of the community; its responsibility towards its schools; its contacts with and contributions to them; and schools' community responsibilities. Individual and group study of racial and language problems; library services; service organizations and welfare agencies; parent-teacher associations; social and economic backgrounds; and the school's public relations program. Fee, 50 cents. Third or fourth year, second semester. Credit, 2 hours.

300 *Seminar: Thesis Preparation and Research.* The four principal objectives are: (1) to acquaint students with the nature of the thesis, (2) to develop a familiarity with the library resources and facilities, (3) to develop certain techniques and basic skills essential in preparing and reporting research studies, and (4) to provide an opportunity for preliminary consideration of suitable thesis problems. Required for the master's degree. Either semester. Credit, 2 hours.

305 *Education and Social Control.* A scientific study of human affairs with a view to giving a satisfactory direction to them. Social

measurement and techniques for carrying on investigation will be considered. Credit, 4 hours.

306 *Character Education*. Problems of educating for citizenship are evaluated in the light of democratic ideals and conflicting social theories. The implications of environment as a means for educating for citizenship will receive attention. Credit, 2 hours.

312 *Modern Elementary Curriculum Development*. For teachers, supervisors, and administrators who wish to study the modern developments of the curriculum. An analysis will be made of the best educational thought, practices, and trends of the elementary program. Special attention given to those innovations of proven value. Credit, 2 hours.

313 *Elementary School Administration*. A course for prospective and in-service teachers and administrators interested in current best practices in organizing and administering the internal affairs of the elementary school. First semester. Credit, 2 hours.

314 *Secondary School Administration*. Stresses the activities and responsibilities of secondary school principals as they relate to the major problems of educational leadership and internal school organization and management. Designed for the administrators and for teachers who wish to prepare for administrative positions. Second semester. Credit, 2 hours.

315 *Public School Administration*. The function of the national government in public school education; state, county, and local organization of public schools; a comparison of administrative practices in different states. Second semester. Credit, 2 hours.

316 *Supervision in the Elementary School*. Considers the purposes of elementary education and such specific problems as the newer type organizations and procedures; grading and promotions; use of new type examinations; ratings of teachers; discipline. Whenever possible, the problems are worked out in the training school. Three times a week. Credit, 3 hours.

318 *Guidance Methods and Techniques*. Critical study of the nature and use of the interview, tests, inventories, records and reports, observation, rating scales, and the case study in student personnel and guidance work. Credit, 2 hours. Course should precede Ed. 320.

320 *Counseling*. A course concerned with the understanding and application of principles, methods, and techniques of counseling individual students. Primary emphasis is placed on how to counsel students effectively. Ed. 318 should precede this course. Credit, 2 hours.

325 *Vocational Guidance.* A study of the origin, philosophy, principles, practices, and services of vocational guidance, its relationship to other types of guidance, to organized education, and to the total student personnel program. Primarily for secondary teachers, counselors, principals, and directors of guidance. Credit, 3 hours.

330 *Contemporary Social Movements.* A critical study of current social theories in relation to the work of social reconstruction. A sociological approach to the problem of education in relation to social control in a dynamic society. Credit, 2 hours.

333 *Secondary School Curriculum Development.* Deals with the meaning and scope of the secondary school curriculum; the resources for curriculum development; methods and techniques of revision; curriculum trends; recent experimental practices with integrated, functional, and core curriculums; and the organization and administration of curriculum development programs. First semester. Credit, 2 hours.

390 *Individual Problems.* Designed to meet the needs of those students wishing to investigate a problem of their own in any field of Education. Credits and hours to be arranged.

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## Department of English and Speech

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SCHILLING (Acting Head of Department), PILCHER, SOUTHERN.

### The Major and Minor in English

*Major Requirements.* (1) Thirty-four hours in English, fifteen of which must be in upper division courses. Included in the thirty-four hours are the eleven hours required in the first two years of the teacher-education curriculums, Eng. 101, 102, 110, 153. The English major requires in addition Eng. 105, 106, 151, 152.

(2) English 105, 106, directed reading courses to be taken during the first and second years, are adjusted to the needs of the individual student. English 151, 152, the second year survey of English literature, covers most of the types of literature and the development of literary movements. With these courses as a guide, the student is expected to plan his upper division electives to meet his own inter-

ests and needs. The textbook of 151, 152 is a combined anthology and history of English literature which the student should keep as a reference and a guide. In addition he should have a good dictionary, a grammar, and a short history of England.

(3) The student is advised to take History 105, 106, the History of England, and some courses in foreign language, either ancient or modern. Students registering for the secondary certificate should elect courses in journalism and stage production in preparation for extra curricular activities.

(4) The student must maintain an average grade of C or better in all English courses. No student whose work in English falls below a C average for more than one semester will be allowed to continue as an English major.

*The Minor.* (1) Twenty-two hours in English, six of which must be in upper division courses. Included in the twenty-two hours are the eleven hours required in the first two years of the teacher-education curriculums, Eng. 101, 102, 110, 153. In addition to these courses, the English minor requires 103, 104, 152.

(2) English 103, 104, directed reading courses to be taken during the first two years, are adjusted to the needs of the individual student. English 152 covers the history of literature and the major writers of the nineteenth century. The six elective upper division hours should be chosen to fit the student's needs and interests as indicated in the preceding required courses.

## The Major and Minor in Speech

*The Major.* The required twenty-four hours may be taken with an emphasis on either dramatics or speech. The following courses must be included: Speech 110, 121, 123, 220, 257, 260. The remaining hours are to be selected with the approval of the student's adviser.

*The Minor.* Fifteen hours, selected in consultation with the speech adviser, are required. The courses required for the major are acceptable for the minor, but they may be modified for greater emphasis on either dramatics or speech. English majors who take a minor in speech must take a second minor in some other department.

## Description of Courses In English

### Composition And Grammar

101 *First Year English.* Narrative and descriptive writing; emphasis on paragraph structure, correctness in English fundamentals, exactness and concreteness of statement. Dictionary and library

practice. Intensive reading in anthology of readings; extensive reading in collection of current books especially selected for first year reading. Fee, 50 cents. Three times a week. Credit, 3 hours.

102 *First Year English*. Expository writing; emphasis on organizing and unifying long papers, improvement in style, expansion of vocabulary. Introduction to word study; practice in research, including the writing of a model term paper. Intensive and extensive reading. Prerequisite: Eng. 101. Fee, 50 cents. Three times a week. Credit, 3 hours.

128 *Advanced Composition*. Designed for students who are interested in further training in the organization and expression of ideas. Study and practice of both factual and imaginative discourse are treated in this course. Prerequisites: Eng. 101, 102. Twice a week. Credit, 2 hours.

130 *Introduction to Journalism*. A general course devoted to the study of basic principles of news-writing. Study and evaluation of news sources with illustrations from representative newspapers. Prerequisite to other courses in journalism. Fee, \$1.00. Three times a week. Credit, 3 hours.

140 *Journalism: Reporting*. A study and practice in the writing of all types of stories covered by a reporter. This course is designed to cover the problems confronted by the adviser of high school publications. Prerequisite: Eng. 130. Fee, \$1.00. Three times a week. Credit, 3 hours.

150 *Journalism: Staff Work*. A laboratory course in practical newspaper work. Devoted to the publication of the State Press, Associated Students' weekly newspaper. Prerequisites: Eng. 130, 140. Fee, \$1.00. Hours by arrangement. Credit, 1-2 hours.

155 *Advanced English Grammar*. A study of technical grammar based upon the prose structure and idiom of the best modern writers. Etymology, word and sentence formation, and terminology are discussed. Second semester, three times a week. Credit, 3 hours.

234 *Creative Writing*. Writing laboratory. Lectures and conferences dealing with the techniques of writing for publication. Prerequisites: Eng. 128. Twice a week. Credit, 2 hours.

### Literature And Language

103, 104 *Directed Reading for English Minors*. Two semesters of directed reading are required for the English minor. Fee, 50 cents. Hours arranged. Credit, 1 hour each.

105, 106 *Directed Reading for English Majors*. Two semesters of directed reading are required for the English major. Fee, 50 cents. Hours arranged. Credit, 1 hour each.

Ed. 207 *Literature for the Kindergarten-Primary Grades*. Offered by the department of education. May be counted toward the English major.

151 *Survey of English Literature*. English literature considered chronologically against the social and political background from Anglo-Saxon times to the end of the eighteenth century. Required of English Majors. Prerequisites: Eng. 101, 102. Three times a week. Credit, 3 hours.

152 *Survey of English Literature*. Nineteenth century literature. General consideration of the major writers in relation to the aesthetic, social, and economic trends of the century. Prerequisites: Eng. 101, 102. Required of both majors and minors in English. Three times a week. Credit, 3 hours.

151, 152 *Survey of English Literature*. Required of all sophomore English majors. Open to others only by consent of instructor. Second year, three times a week. Credit, 3 hours each.

153 *World Literature*. Selections from the great literature of the world in translation. Lectures on the cultural background out of which the writings grew. Three times a week. Credit, 3 hours each.

171 *Introduction to Literature*. An introduction to literature and literary types. Reading of short stories, essays, novels, biographies, plays, and poetry, mainly from modern writers. Not open to English majors. Three times a week. Credit, 3 hours each.

201 *History of the Novel*. The origins of prose fiction, the novel in England and America, with some attention to significant examples of foreign literature. Analysis of typical examples and reading of outside assignments. Three times a week. Credit, 3 hours each.

203 *History of the Drama*. The English drama from the Middle Ages to the present, together with selective examples of foreign influences. Reading of representative plays of each period. First semester, three times a week. Credit, 3 hours.

205g *Shakespeare: the Tragedies*. Critical study of five plays. An introduction to the problems of Shakespearean scholarship. Three times a week. Credit, 3 hours.

206g *Shakespeare: the Comedies*. A rapid reading of all the comedies. Studies of the comic spirit and Shakespeare's comic genius. Three times a week. Credit, 3 hours.

208 *Nineteenth Century Prose: Victorian.* A study of the prose writers of the second half of the nineteenth century, with readings of their most significant works. Three times a week. Credit 3 hours.

211g *Nineteenth Century Poetry: Romantic Period.* Study of and readings in the poetry of Wordsworth, Coleridge, Shelley, Keats, Byron. Three times a week. Credit, 3 hours.

212g *Nineteenth Century Poetry: Victorian Period.* The poetry of the second half of the century, with special study of Tennyson, Browning, Arnold. Three times a week. Credit, 3 hours.

213 *Modern Fiction.* A study of the modern novel beginning with Meredith. First semester, three times a week. Credit, 3 hours.

214 *Contemporary Fiction.* A study of important contemporary writers; their careers and distinctive traits, with particular attention to the relationship of their ideas with present day problems. Second semester, three times a week. Credit, 3 hours.

216 *Contemporary Poetry.* English and American poetry of the twentieth century; techniques, aims, and significance. Second semester, three times a week. Credit, 3 hours.

217 *Modern Drama.* The chief dramatic writers of the generation preceding the World War. Reading from representative plays. Study of the theatre as influenced by the national school of the period. First semester, three times a week. Credit, 3 hours.

218 *Contemporary American Drama.* A study of the American Drama since the World War, with special attention to experimental techniques. Second semester, three times a week. Credit, 3 hours.

221 *American Literature.* Study of American literature from colonial times to the civil war, including the growth of nationalism, the rise of the New England school. Open to majors from other departments who have junior standing. Prerequisites: Eng. 101, 102. Three times a week. Credit, 3 hours.

222 *American Literature.* From Whitman to the present. Study of the influence of westward expansion, the growth of regionalism, the literature of social protest. Open to majors from other departments who have junior standing. Prerequisites: Eng. 101, 102. Three times a week. Credit, 3 hours.

223g *Milton.* The life of Milton, his relation to the literary and social background of his period, and textual study of his chief works. Second semester, three times a week. Credit, 3 hours.

224 *Pope*. The life of Pope, his relation to the literary and social backgrounds of his period, and textual study of his chief works. First semester, three times a week. Credit, 3 hours.

226 *Short Story*. The development of the short story as a literary form; analysis of its technique through study of examples from the work of representative authors. Second semester, three times a week. Credit, 3 hours.

231g *Literature for Junior and Senior High School Students*. A study of prose and poetry which meets the interests, desires and capabilities of the high school boy and girl. Recent literature for the adolescent will be stressed. First semester, three times a week. Credit, 3 hours.

232g *Methods of Teaching English in the Junior and Senior High School*. Preparation of units in high school literature and composition, methods of teaching which provide for individual differences, and construction of measurement devices will be included. Second semester, three times a week. Credit, 3 hours.

254g *History of the English Language*. The development of English syntax and vocabulary, with emphasis on modern usage. Recommended for English majors. Three times a week. Credit, 3 hours.

### Speech and Dramatics

Speech 110 *Elements of Speech*. An introductory course in the field of speech and drama. Diagnosis of speech needs, with special clinical service available to those who need it. The minimum essentials of public speaking, the scientific attitude toward problems of pronunciation, principles of good conversation. An introduction to the aesthetic point of view, particularly as it pertains to the art of the theatre. Fee 60 cents. First year, either semester, twice a week. Credit, 2 hours.

121 *Dramatic Interpretation*. Principles of oral interpretation. Readings and selections for practice. Fee, 50 cents. Twice a week. Credit, 2 hours.

122 *Acting*. Readings in theory; laboratory projects. Fee, 50 cents. Three times a week. Credit, 3 hours.

123 *Stagecraft*. A study of the fundamentals of stage design and construction, lighting, costuming, make-up, and stage management. Fee, 50 cents. Twice a week and laboratory hours. Credit, 3 hours.

127 *Argumentation and Debate*. The principles of argumentation as illustrated in debate. Essential to students engaging in intercollegiate debate. First semester, twice a week. Credit, 2 hours.

220 *Public Speaking*. A course in the organization and delivery of various types of speeches, with emphasis on those types which occur most often in everyday life. Second semester, twice a week. Credit, 2 hours.

227 *Intercollegiate Debating*. Preparation for and participation in intercollegiate debates. Credit is given only to those who have completed Speech 127 and is awarded at the end of the second semester. Prerequisite: Speech 127. First semester, twice a week. Credit, 1, 2 hours.

230 *Creative Dramatics*. A study of the uses of dramatics in schools; the methods of making a play from a lesson or story; the methods of getting children to improvise their own roles. Two recitation hours, two hours of demonstration weekly. In cooperation with the Training School. First semester. Credit, 3 hours.

235 *Stage Directing*. Theory and practice in the directing of plays under faculty supervision. Fee, 50 cents. Three times a week with laboratory. Credit, 3 hours.

240g *Children's Dramatics*. The theory of creative dramatics, choral speaking, and story telling. Once a week. Credit, 1 hour.

241g *Children's Dramatics Laboratory*. Practice in creative dramatics, choral speaking, story telling, and formal dramatics, as assigned. Work with training school children. Prerequisites: Speech 235, 240g, or equivalent. Twice a week. Credit, 2 hours.

257g *Speech Correction*. Detailed study of the cause and correction of such minor defects of speech as lispings, nasality, dialects, and baby talk, and such major defects as cleft palate and paralytic speech, stuttering and stammering, tongue-tie speech, speech of the deaf, and abnormal voice qualities. Clinical practice in the College Speech Correction Clinic. Twice a week, and one hour of clinical practice. Credit, 3 hours.

258g *Speech Correction*. A clinical, laboratory course for intensive practice in the actual correction of speech defects. Seminar in conjunction for extensive acquaintanceship with literature in the field. Prerequisite: Speech 257. Hours to be arranged. Credit, 2, 4 hours.

259g *Clinical Practice*. Purely a laboratory course consisting of clinical practice in the College Speech Clinic. Open only to students of Speech Correction who have previously taken Speech 257 and 258. Both semesters, hours to be arranged. Credit, 1, 3 hours.

260g *Phonetics*. A practical study of phonetics, including the phonetic symbols, the production, the general characteristics and the

application of the sounds of American speech in the acquisition and teaching of good pronunciation. Second semester, once a week. Credit, 1 hour.

### Individual Problems

Designed to meet the needs of those students wishing to investigate a problem of their own in English, Speech or Dramatics. Time and credit to be arranged. All such courses are numbered 390.

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# Department of Foreign Languages

PORTNOFF (Head of the Department), WILSON

In Arizona the foreign language given in most high schools is Spanish, therefore this department offers a major in the Spanish language and literature providing special training for students who wish to qualify as teachers of Spanish. For the year 1945-1946 Latin, Spanish, French, Russian, and German will be offered.

## Majors and Minors

*Teacher Training Major and Minor in Spanish.* Thirty semester hours in Spanish are required for the teaching major. Fifteen hours must be in upper division courses. The following courses or equivalents are required: Spanish 101, 102, 103, 104, 203g, 204g, 205g, 206g.

The minor in Spanish consists of sixteen semester hours of work. The following courses or their equivalents must be included: Spanish 101, 102, 103, 104.

*The Non-Teaching Major and Minor.* For those not planning to teach, a major may be composed of two or more foreign languages of not less than six semester hours each. A total of at least twenty-four hours is required for this major. A non-teaching minor of fifteen hours may be obtained in one or two languages. Students majoring in Spanish are strongly advised to select French as a minor. English, the Social Sciences, and Commerce are also acceptable minors for foreign language majors.

## Description of Courses

### Spanish Language And Literature

Span. 101 *Elementary Spanish*. Designed to give the beginner a knowledge of the fundamentals of pronunciation and grammar. Open to beginners only. First semester, four times a week. Credit, 4 hours.

102 *Elementary Spanish*. A continuation of Span. 101 together with the reading of several elementary texts. Prerequisites: Span. 101 or equivalent. Second semester, four times a week. Credit, 4 hours.

103 *Intermediate Spanish*. Along with a review of grammar, reading is given which stresses vocabulary building and accuracy of expression. Prerequisites: Span. 102 or equivalent. First semester, four times a week. Credit, 4 hours.

104 *Advanced Spanish*. The work is similar to Span. 103 with greater emphasis upon rapid reading and oral expression. Prerequisite: Span. 103 or equivalent. Second semester, four times a week. Credit, 4 hours.

203g, 204g *Advanced Spanish Composition*. Translating of selected English prose into Spanish, and original composition. Grammar review through writing. Collateral reading of modern short stories, novels and plays. Conducted in Spanish. Prerequisite: Span. 104 or equivalent. Three times a week. Credit, 3 hours, each semester.

205g, 206g *Survey of Spanish Literature*. The chief characteristics of the Middle Ages, Renaissance and the Golden Age, the evolution of Spanish thought and literary ideals. Lectures, reading, discussion and reports. Conducted in Spanish. Prerequisite: Span. 204g or equivalent. Three times a week. Credit, 3 hours each semester. Not offered in 1945-1946.

207g *Spanish Literature of the Nineteenth Century*. A study of the Romantic dramatics of this century and the most representative novelists and poets of the second half of the century. Second semester, three times a week. Credit, 3 hours.

224g *Spanish American Literature*. A study of the outstanding novelists and poets. First semester, three times a week. Credit, 3 hours.

227g *The Regional Novel*. The chief characteristics of the Spanish regional novel. Two times a week. Credit, 2 hours. Not offered in 1945-1946.

## French

Fr. 101 *Elementary French*. For beginners. Grammar, reading, composition, and conversation. First semester, four times a week. Credit, 4 hours.

102 *Elementary French*. A continuation of Fr. 101. Emphasis on reading and conversation. Prerequisite: Fr. 101 or equivalent. Second semester, four times a week. Credit, 4 hours.

103 *Intermediate French*. Grammar review, and reading of modern novels, plays, and short stories. Prerequisite: Fr. 102 or equivalent. First semester, three times a week. Credit, 3 hours.

104 *Intermediate French*. Continuation of 103. Emphasis on reading and conversation. Second semester, three times a week. Credit, 3 hours.

203 *The French Theatre*. Plays from Moliere, Corneille, Victor Hugo, and modern writers. Prerequisite: Fr. 103 or equivalent. Three times a week. Credit, 3 hours. Not offered in 1945-1946.

## German

Ger. 101 *Elementary German*. Grammar, reading and conversation. First semester, three times a week. Credit, 3 hours.

102 *Elementary German*. A continuation of Ger. 101, with emphasis on reading. Second semester, three times a week. Credit, 3 hours.

## Latin

Lat. 101 *Elementary Latin*. A beginners' course for students desiring a general cultural background, and for majors in English and the sciences. Emphasizes vocabulary and derivations rather than grammar. First semester, four times a week. Credit, 4 hours.

102 *Elementary Latin*. A continuation of Lat. 101 with the use of a simple Latin reader. Second semester, four times a week. Credit, 4 hours.

## Russian

Rus. 101 *Elementary Russian*. Grammar, reading and conversation. First semester, three times a week. Credit, 3 hours.

102 *Elementary Russian*. A continuation of Rus. 101. Emphasis on reading and conversation. Prerequisite 101 or equivalent. Second semester, three times a week. Credit, 3 hours.

## Individual Problems

Open to graduates only who wish to do special work in French, Russian, Spanish, or German. Credit and hours to be arranged. All such courses are numbered 390.

# Department of Home Economics

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RANNELS (Head of the Department), ELLIFF, ELLSWORTH,  
WOODALL

This department offers training designed to meet the needs of students of the following types: (1) Those who wish to teach in this field in the elementary or junior high school. (2) Those wishing to secure a secondary certificate with a major in home economics. (3) Those who wish to meet the requirements for vocational certification. (4) Those wishing the special certificate in home economics. (5) Those who wish to prepare for the vocation of homemaking. (6) Those who desire a background for other vocations which grow out of the study of home economics.

## Majors and Minors in Home Economics

*For Elementary and Special Certification.* This major meets the needs of those planning to teach home economics with elementary or special certificates. The elementary certificate permits the holder to teach in grades one to nine inclusive. The holder of the special certificate may teach home economics in grades one to twelve inclusive except in those high schools receiving aid from the United States government. The major consists of thirty hours, with the following courses required: H. Ec. 100, 101, 102, 104, 105, 108, 203, 208, 214, 217. In addition five hours of the required teaching must be in home economics. The remaining courses may be H. Ec. 206 or 212, and 207 or 211.

*For Secondary Certification.* The requirements for the major are the same as given above; but, in addition, those seeking the master's degree must meet the requirements made by the graduate division.

*For Vocational Certification.* Those who are preparing for vocational certification will select courses to complete a major of forty semester hours, exclusive of the hours required in directed teaching and home economics education. The holder of the vocational certificate may teach home economics in all grades including high schools receiving aid from the United States government. This preparation includes: (a) A bachelor's degree in a four-year course covering all phases of homemaking. (b) Related subjects amounting to twenty-six hours. Those that are accepted include chemistry, bacteriology, physics, biology, physiology, hygiene, sociology and art.

(c) Five semester hours of directed teaching in homemaking. (d) General academic courses and electives to make up the total of 130 semester hours.

The following courses are required and should be taken in the years indicated: Freshman year, H.Ec. 100, 101, 102, 104; sophomore year, H.Ec. 105, 108, Chem. 110, 180; junior year, H.Ec. 202, 203, 206, 208, 211, 215; senior year, H.Ec. 207, 209, 212, 214, 217, and Biol. 172.

*The Minor.* Fifteen hours are required for the minor. H.Ec. 106 and 107 are recommended. The remaining courses must be approved by the head of the department.

## Description of Courses Offered

H. Ec. 100 *Orientation to Home Economics.* A preview of the home economics field, including opportunities for employment at the end of the course. Fee, 25 cents. First year, first semester. Credit, 1 hour.

101 *Elementary Nutrition.* The fundamental principles of nutrition, the selection of an adequate diet, and the significance of food in its relation to health. Open to men and women. Fee, 25 cents. First semester. Credit, 2 hours.

102 *Clothing Selection.* The selection of clothing with consideration of materials, cost, style, design, the individual, and the occasion. Fee, 25 cents. Credit, 2 hours.

103 *Introduction to Family Living.* This course is planned to give students not taking either a major or minor in Home Economics a better understanding of everyday living. Establishment of the home, children in the home, management of physical and social life of the family group, family finances, food (the actual planning and preparing of some meals), clothing, and art appreciation with its application in the home are some of the topics to be covered. Fee, \$1.00. Second semester. Credit, 3 hours.

104 *Home Nursing.* Information on good health for the family, special attention being given to care of the sick, a study of the mother through pregnancy and childbirth, and the care of the infant. Fee, 25 cents. Second semester. Credit, 1 hour.

105 *Applied Food Principles.* A study of the general principles of cookery and the nutritive facts involved. Open only to majors in the department. Fee, \$3.00. First semester, six hours a week. Credit, 3 hours.

106 *Food Preparation and Meal Service.* A consideration of the fundamental processes involved in food cookery, meal planning and table service. Designed especially for non-major students. Fee, \$3.00. First semester, six hours a week. Credit, 3 hours.

107 *Fundamentals of Clothing Construction.* Gives non-major students some experience in the practical aspects of clothing selection and construction. Fee, 25 cents. Second semester, six hours a week. Credit, 3 hours.

108 *Clothing Construction.* Develops the principles of dressmaking through the construction of inexpensive garments. Experience in the selection of materials and design. Open only to major students. Fee, 25 cents. Second semester, six hours a week. Credit, 3 hours.

110 *Household Equipment.* The construction, selection and use of all types of household equipment is studied in detail. Fee, 25 cents. Second semester. Credit, 3 hours.

202g *Problems of the Consumer.* A study of the problems, wants, needs, and practices of the consumer buyer in the fields of foods, textiles, clothing, and home equipment. Considers the influence of advertising, retail stores, and government agencies on the consumer. Fee, 50 cents. First semester. Credit, 2 hours.

203 *Child Development.* A study of the physical, mental, emotional and social development of the young child. Observation in the nursery school. Fee, 50 cents. First semester, three times a week. Credit, 3 hours.

206g *Food for the Family.* Stresses the production, the economic selection, and nutritive value of foods, types of meals, and table service. Practice is given in planning, preparing and serving family meals. Open only to majors in the department. Prerequisites: H. Ec. 101, 105. Fee, \$3.00. Second semester, six hours a week. Credit, 3 hours.

207g *Nursery School Education.* Opportunity is given for directed teaching in the nursery school. Studies in the development of the nursery school and the theories underlying current practices. Prerequisite: H. Ec. 203 or Ed. 234. Fee, \$1.00. Six hours a week. Credit, 3 hours.

208 *Home Economics Education.* A study of the philosophy, content and methods of teaching home economics applicable to both elementary and secondary schools. It includes much use of teaching aids, working out a home project, and emphasizes the part evaluation plays in such teaching. Fee, \$1.00. First semester. Credit, 3 hours.

209g *The Family*. A study of the organization of the family as a changing institution, and the development of guiding principles for the future family. Open to men and women. Fee, 25 cents. Second semester. Credit, 3 hours.

211g *Advanced Clothing*. Deals with wool and silk construction problems, advanced fitting problems, good style and design, and making and assembling illustrative material for the teaching of clothing. Prerequisites: H. Ec. 102, 108. Fee, 25 cents. First semester, six hours a week. Credit, 3 hours.

212g *Advanced Nutrition*. A study of special problems in diet and nutrition. Prerequisite: H. Ec. 101. Fee, \$1.00. First semester. Credit, 3 hours.

214g *Home Management House*. Students live in the Home Management House for a six-week period, and carry on all the duties involved in homemaking. Open only to senior home economics majors. Prerequisites: H. Ec. 104, 203, 206, 217. Fee, \$5.00 and board and room at the regular college rate. Second semester. Credit, 3 hours.

215 *Home Furnishing*. Considers the selection, combination, and arrangement of furniture; color schemes; choice of wall finishes, floor coverings, draperies, and accessories. Fee, 50 cents. Second semester. Credit, 3 hours.

217g *Home Management*. A study of goals of homemaking, standards of living, the budgeting of time and income, household accounting, and the selection, care, efficient arrangement and use of the house and equipment. Fee, 50 cents. First semester. Credit, 3 hours.

219g *Textiles*. Textile fibers and the construction and finish of fabrics, their sources, characteristics, identification, and uses. Fee, 50 cents. First semester. Credit, 2 hours.

220g *The Elementary Curriculum in Home Economics*. A study of the elementary curriculum in home economics with emphasis on adaptation to the needs of the groups to be served. It includes basic philosophy, content, methods, use of teaching aids, and evaluation. Provision for free exchange of teaching experiences. Attention to organization of guides which may be adapted to varying teaching situations. Fee, 25 cents. Second semester. Credit, 2 hours.

222g *The Teaching of Nutrition in the Elementary School*. Of service to all teachers and administrators who have a part in achieving the commonly accepted goal of "Better Nutrition for all of our

People". Emphasis on desirable goals based on needs of groups to be served. Ways and means that have proved effective will be studied. Exploration of pertinent available teaching materials and the latest available scientific investigations. Opportunity for developing special and unique problems will be provided. Fee, 50 cents. Offered summers only. Credit, 2 hours.

224g. *Evaluation in Home Economics Education.* Deals with newer concepts of the part of evaluation in the learning experience with emphasis on helping the learner to see his own growth. Newer testing instruments and techniques in the field of home economics education in both elementary and secondary areas. Prerequisite: H. Ec. 208. Fee, 50 cents. Offered summers only. Credit, 2 hours.

226g *The Teaching of Art Related to the Home.* Emphasizes use of methods for teaching the application of principles of art to problems of daily living. Much use will be made of pertinent illustrative material and opportunity will be provided to participate in practical teaching projects. Fee, 50 cents. Offered summers only. Credit, 2 hours.

Ed. 260 *Directed Teaching.* Majors must teach home economics for one-half semester under the supervision of the department. Prerequisite or parallel: H. Ec. 208. Either semester, every afternoon. Credit, 5 hours.

390 *Individual Problems.* Designed to meet the needs of those students wishing to investigate a problem of their own in any phase of Home Economics. Time and credit to be arranged.

# Department of Industrial Arts

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NEEB (Head of the Department).

*Preparation for Teaching.* Two types of work are offered to students preparing themselves to become teachers, supervisors, and directors of industrial arts. One concerns itself with the problems of the elementary and junior high schools, and the other with secondary school problems. In addition, students not interested in teaching industrial arts may select courses, majors, or minors to fit their needs.

*Preparation for Trades.* To meet the needs of civilians, veterans, and pre-induction trainees, the department offers a group of practical applied courses. The purpose of these courses is to prepare the student within a limited time for his job or trade. A full course runs the entire college year and requires six hours per day.

*Time Requirements.* All courses are so planned that three hours per week are required for each semester hour earned. These three hours include class work, laboratory work, or work of any other type.

## Majors and Minors

With the exception of the General Major, which requires only twenty-four hours, all other majors require thirty hours. All minors in Industrial Arts require fifteen hours. The different types of majors and minors and their requirements are given below. With the approval of the head of the department, students may select courses to fit their needs.

*The General Major.* This major is for those students who do not wish to teach Industrial Arts, and yet desire a background in industrial arts of a general nature.

*The Teaching Major.* Those planning to teach Industrial Arts will select thirty hours of work, at least fifteen hours being upper division work, from the following courses: I.A. 105, 106 or 114-a, 115, 121, 122, 132, 133, 154, 163, 207, 211, 212, 218, 257, 264.

*Special Majors.* These are designed to meet the needs of students wishing a major in the following special fields of industrial arts: (1) Building and Construction; (2) Electrical; (3) General Shop. Each requires thirty hours of work selected from the courses listed after each as follows: (1) *Building and Construction.* The following courses are required: I.A. 109, 211, 212, 257. Twenty-three hours should be selected from the following: I.A. 105, 106, 113, 114-a, 121,

122, 145, 154, 160, 163, 207, 208, 217, 218. (2) *Electrical*. The following courses are required: I.A. 109, 211, 212, 257. The remaining twenty-three hours are to be chosen from the following: I.A. 100, 101, 105, 107, 111, 113, 115, 116, 153, 160, 215, 216. (3) *General Shop*. The following nineteen semester hours of work are required: I.A. 109, 113, 121, 122, 163, 211, 212, and the remaining twelve hours are to be selected from the following: I.A. 100, 101, 105, 111, 112, 115, 116, 133, 154, 160, 164. It is recommended that students taking any of the special majors select a science minor.

*Minors*. The requirements for minors are as follows: (1) *Architectural Drawing*. Required, I.A. 211, 212. Select the remainder from the following: I.A. 105, 106, 201, 202. (2) *Mechanical Drawing*. Select from the following: I.A. 113, 114-a, 114-b, 155, 156, 211, 212. (3) *Woodworking*. Required, I.A. 211, 212. Select other courses from the following: I.A. 121, 122, 207, 208, 217. (4) *Mechanics*. Required, 211, 212. Select other courses from the following: I.A. 111, 112, 160, 164. (5) *Electrical*. Required, I.A. 211, 212. Select other courses from the following: I.A. 100, 101, 115, 116, 154. (6) *General Teaching Minor*. Courses are selected to meet the student's special needs.

## Description of Courses

I.A. 100 *Elementary Electricity*. Designed to acquaint the student with practical electrical work, including splicing; soldering; light, bell and annunciator circuits. A prerequisite for all electrical and radio courses. Fee, \$3.00. Three times a week. Credit, 3 hours.

101 *Auto Ignition*. Prepares the student for commercial shop practice, and includes testing, recharging, and repairing storage batteries; ignition coils; distributors; lighting systems; fuses and circuit breakers. Machine shop practice. Fee, \$3.00. Two lectures, four hours laboratory. Credit, 3 hours.

103 *Mechanical Drawing*. A study of the elements of orthographic projection. Fee, \$3.00. One lecture, six hours laboratory each week. Credit, 3 hours.

105 *Architectural Drawing*. For students preparing to teach in the junior and senior high schools or for architectural drafting and engineering work. Fee, \$3.00. One lecture, six hours laboratory a week. Credit, 3 hours.

106 *Architectural Drawing*. A continuation of I. A. 105. Complete plans and estimate of materials for a two story house. Open to all students. Prerequisite: I.A. 105. Fee, \$3.00. One lecture, six hours laboratory a week. Credit, 3 hours.

108 *Agricultural Mechanics*. Meets the needs of students of agricultural and farm management. Fee, \$3.00. One lecture, nine hours laboratory. Credit, 3 hours.

109 *Calculations*. The practical application of the fundamental arithmetical processes to problems of the shop with emphasis upon rapid calculations and theory and practical use of the slide rule. Three lectures a week. Credit, 3 hours.

110 *Blue Print Reading*. A study of blue prints and the symbols used in industrial practice in building and construction, machine shops, aeronautics, radio and electricity. Fee, \$2.00. Credit, 2 hours.

111 *Machine Shop*. A beginning course in machine shop practice including filing, drilling, turning, and polishing done with hand tools; and general use of machine equipment. Fee, \$3.00. One lecture, six hours laboratory. Credit, 3 hours.

112 *Machine Shop*. The making of industrial projects involving the use of the complete machine equipment of the department. Prepares men for machinists and auto mechanics, as well as for teachers in secondary schools. Fee, \$3.00. One lecture, six hours laboratory. Credit, 3 hours.

113 *Engineering Drawing*. A study of orthographic projections, lettering, tracing, and blue printing. Required of all engineering students. Prerequisite: one year high school drawing, or I. A. 103. Fee, \$3.00. One lecture, and six laboratory hours each week. Credit, 3 hours.

114-a *Descriptive Geometry*. Designed for students majoring in mechanic arts. The elements of descriptive geometry, including problems in warped surfaces and intersections of solids. Prerequisite: I.A. 113. Fee, \$3.00. One lecture, six hours laboratory each week. Credit, 3 hours.

114-b *Descriptive Geometry*. Same as I.A. 114-a with emphasis on shades and shadows. Primarily for architectural and art students. Prerequisites: I.A. 105, 106. Fee, \$3.00. One lecture, six hours laboratory. Credit, 3 hours.

115 *Radio Construction*. Covers the elements of electrical theory, electromagnetism, potential, current, resistance, capacitance, storage and dry cells, the vacuum tube, and vacuum tube circuits. Fee, \$3.00. Two lectures, four hours laboratory. Credit, 3 hours.

116 *Radio Construction*. A continuation of I.A. 115, involving a study of the more advanced types of receiving sets, testing and servicing, and vacuum tube characteristics. Constructional work and

laboratory practice. Fee, \$3.00. Two lectures, four hours laboratory. Credit, 3 hours.

118 *Industrial Machine Shop Practice.* Designed to give practical training in machine shop practice. The following regular courses in industrial arts together with twelve semester hours of supplemental work compose this course: 110, 111, 112, 223. The course runs six hours per day throughout the college year. Among the topics and processes included are the following: accepted shop standards; techniques, theory, and calculations necessary to progress in this work; use of tools; bench work; lathe work; drill press operations; operations on the shaper; use of planer; milling machine; grinding. Credit, 12 semester hours per semester. Twenty-four hours of work satisfactorily completed may be used to meet in part the requirements for a major in the department of industrial arts. Laboratory fee, \$50 per semester. Minimum of twelve students required.

121 *Wood Work.* A course in the basic types of furniture construction and furniture repair suitable for use in junior high school shop work. No machine work. Fee, \$3.00. One lecture, six hours laboratory a week. Credit, 3 hours.

122 *Cabinet Making.* Gives practice in the proper use and care of hand tools. The correct use of machines is emphasized. A study of the fundamental principles involved in furniture construction. Fee, \$3.00. One lecture, six hours laboratory a week. Credit, 3 hours.

131 *Aircraft Engines.* Provides training in the disassembly and assembly of aircraft engines including a complete top overhaul, timing of engines, and synchronizing of magnetos. Information relative to carburetion, ignition and oiling systems necessary for a complete understanding of the operation of aircraft engines will also be introduced. Fee, \$3.00. One lecture, six hours laboratory a week. Credit, 3 hours.

132 *Airplane Mechanics.* All types of wood rib construction, use of power sewing machine, covering, together with doping and painting of covered surfaces. Course will also include riveting and information concerning use of metals for aircraft construction. One lecture, and six hours laboratory a week. Credit, 3 hours.

133 *Plastics.* A study of the practical uses of plastics and their uses as an educational medium for school work shops, hobby shops, recreational shops, and industry. Fee, \$3.00. Credit, 3 hours. Six hours per week.

135 *Aircraft Maintenance.* A course designed to give practical training in various types of work required of airplane mechanics. The

course runs six hours a day through the college year. The course includes I.A. 132. Topics and processes covered include the following: aircraft wood work, metal working, fabric work, rigging, and maintenance and inspection of the same. Credit, 12 semester hours each semester. Twenty-four semester hours, satisfactorily completed, may be used to meet in part the requirements for a major in the department of industrial arts. Laboratory fee, \$5 per semester. Minimum of twelve students required.

137 *Aircraft Engine Maintenance*. This course gives practical and theoretical training in aircraft engines. Six hours per day throughout the college year are given to instruction in standard techniques, shop procedures, and theory. I.A. 131 and 255 together with eighteen semester hours of supplemental work make up this course. The topics studied include the following: a study of the physics and mechanics involved in engine operation; the tools, equipment, and methods used; construction details, servicing, and operations; fuels and fuel systems; instruments and propellers; general procedure in making checks; power plant installations; top overhauls; and trouble shooting. Credit, 12 semester hours each semester. Twenty-four semester hours, satisfactorily completed, may be used to meet in part the requirements for a major in the department of industrial arts. Laboratory fee, \$50 per semester. Minimum of twelve students required.

145 *Elementary Surveying*. Care, adjustment and use of surveying instruments, and computations. One lecture, six hours of laboratory per week. Fee, \$3.00. Credit, 3 hours.

151 *Broadening and Finding*. For students preparing to teach in the junior and senior high schools. Consists of model work, boats, steam engines, electrical motors, and similar projects, and special problems in woodworking, machine shop, radio, or electricity. Fee, \$3.00. One lecture, six hours laboratory a week. Credit, 3 hours.

154 *House Wiring*. The chief topics are the installation of lighting circuits, underwriters' regulations, conduit work, and the estimation of cost. Fee, \$3.00. Two lectures, four hours laboratory. Credit, 3 hours.

155 *Mechanisms*. The study and design of linkages, gears, cams, screws, and other machine elements, together with the relative motions of machine parts. Prerequisite: I.A. 114-a. Fee, \$3.00. One lecture, six hours laboratory each week. Credit, 3 hours.

156 *Machine Design*. Treats such topics as shafts, bearings, pulleys, belts, clutches, standard machine parts, and fastenings. Prerequisite: I.A. 155. Fee, \$3.00. One lecture, six hours laboratory each week. Credit, 3 hours.

157 *Jigs and Fixtures*. The design and construction of various devices that facilitate shop production in quantities. Fee, \$3.00. Credit, 3 hours.

158 *Building and Construction*. A course designed to give students preparation for entrance into construction work involved in home building, the erection of other buildings, and heavy timber construction. Six hours per day throughout the college year will be spent in the study of building design and generally accepted methods of construction. The following regular industrial arts courses together with six semester hours of supplemental work compose the course: 122, 207, 208, 217, 218, 287. Topics and processes covered are: foundations, framework, mill work, steel square, cement work, plastering, paint, contracting. Credit, 12 semester hours each semester. Twenty-four semester hours of work satisfactorily completed may be used in part to meet the requirements for a major in the department of industrial arts. Laboratory fee, \$50 per semester. Minimum of twelve students required.

160 *Sheet Metal Work*. Prepares the student to teach in junior high school. Laying out and cutting of sheet metal; soldering; riveting; projects including utensils and toys. Prerequisite: I.A. 114-a. Fee, \$3.00. One lecture, six hours laboratory. Credit, 3 hours.

163 *Wood Turning*. Drills in spindle, face plate, and chuck work, together with practice in finishing and polishing. Fee, \$3.00. One lecture, six hours laboratory a week. Credit, 3 hours.

165 *Industrial Drafting Room Practice*. Designed to give suitable training on a college level to those who wish to prepare for either the architectural or engineering professions. Six hours daily throughout the college year will be given to the study of accepted practices and theory of design and construction. This course is composed of the following regular courses together with six semester hours of supplemental work: I.A. 103, 105, 106, 113, 201, 202. Topics covered in mechanical drafting are: Orthographic projection; geometrical problems; shop sketching; one, two, and three view drawing; details; sections; isometric projections; perspective; problems in intersection of planes and curved or irregular surfaces; design of elementary mechanisms and machine parts. Among the topics covered in architectural drafting are the following: architectural details, single story house plans and design, two story house plans and design, design of farm buildings, blue print reading and estimating, perspective, shades and shadows, coloring, supervision of construction. Credit, 12 semester hours each semester. Twenty-four semester hours of work satisfactorily completed may be used to meet in part the requirements

for a major in the department of industrial arts. Laboratory fee, \$50 per semester. Minimum of twelve students required.

179 *Welding*. Oxygen-acetylene welding. Various types of welds, laying, use of fluxes on both light and heavy work. Fee, \$3.00. Credit, 3 hours.

200 *C.A.A. Primary Ground School Course*. Sponsored by the Civil Aeronautics Authority. A total of 72 hours in class are required as follows: History of Aviation, 2 hours; Theory of Flight, 15 hours; Civil Air Regulations, 12 hours; Practical Air Navigation, 15 hours; Meteorology, 15 hours; Parachutes, 1 hour; Aircraft Power Plants, 5 hours; Aircraft Instruments, 5 hours; Radio Uses and Terms, 2 hours. Arrangements for flight instruction will be made for students desiring the same. Flight instruction costs are extra. Fee, \$4.00. Four times a week. Credit, 4 hours.

201 *Architectural Drawing*. A study of some of the best classical elements in architecture, and of the fundamentals of design. Prerequisites: I.A. 114-b, 106. Fee, \$3.00. One lecture, six hours laboratory a week. Credit, 3 hours.

202 *Architectural Drawing*. A series of problems involving a study of the principles of architectural composition. Prerequisite: I.A. 201. Fee, \$3.00. One lecture, six hours laboratory a week. Credit, 3 hours.

204 *The Secondary Ground School Course*. Consists of a minimum of 128 hours in the following subjects: Aerodynamics and Structures, 32 hours; Navigation, 48 hours; Powerplants, 48 hours. Prerequisite: C.A.A. 200. Passing of Government Examination required for college grade. Fee, \$8.00. Eight lectures per week. Credit, 8 hours.

205 *Radio Code*. Sending and receiving of radio code messages using international Morse Code. Speed attained at close of course is ten words. Operation of communication receivers. Signals using light reception. Fee, \$2.00. Credit, 2 hours.

206 *Advanced Plastics*. An advanced study of plastics with emphasis on materials, machine operations, carving, cementing; embossing and inlaying. Six hours a week. Fee, \$3.00. Credit, 3 hours.

207 *Cabinet Making and Mill Work*. Deals with advanced types of furniture; construction, and tenoning; panel construction; methods of gluing; the application of finishes; design; the use of power machines. Prerequisite: I.A. 122. Fee, \$3.00. One lecture, six hours laboratory a week. Credit, 3 hours.

208 *Carpentry and House Construction*. Construction problems involved in the erection of building emphasizing the use of the steel

square and carpenters' tools; sharpening of cutting tools; framing processes; short cuts; trade terminology. Fee, \$3.00. One lecture, six hours laboratory a week. Credit, 3 hours.

211 *Job Analysis.* Jobs are analyzed into their various steps and their relationship is studied. This course is necessary in curriculum building. Fee, \$2.00. Two lectures and two laboratory demonstrations per week. Credit, 2 hours.

212 *Curriculum Making.* For students preparing to teach. Trade and technical material, tool processes, occupational information, and job analysis are arranged to form effective teaching guides. Prerequisite: I.A. 211. Fee, \$2.00. Two lectures and two laboratory demonstrations per week. Credit, 2 hours.

215 *Radio Construction.* Acquaints the student with the fundamentals of radio transmission. Oscillating circuits; system of modulation; antenna systems; frequency measurements; international Morse code; government regulations. The student is required to pass the equivalent of a government examination for an amateur operator's license. Prerequisite: I.A. 116. Fee, \$3.00. Two hours lecture, four hours laboratory. Credit, 3 hours.

216 *Radio Construction.* Seminar. Fee, \$3.00. Six hours per week. Credit, 3 hours.

217 *Stair Building.* Construction of straight stairways, platforms, and circular stairways to one-third scale. Prerequisite: I.A. 208. Fee, \$3.00. One lecture, six hours laboratory a week. Credit, 3 hours.

218 *Steel Square and Roof Framing.* A study of problems involving the use of the steel square in carpentry, framing, stair building, and sheet metal. Prerequisite: I.A. 208. Fee, \$3.00. One lecture, six hours laboratory a week. Credit, 3 hours.

223 *Tool Design and Grinding.* Construction, sharpening, and honing of various cutting tools. Study of the care and use of wood cutting tools and the rate and clearance needed for metal cutting tools. Fee, \$2.00. Credit, 3 hours.

224 *Estimating and Contracting.* Making cost analysis of various types of structures and the cost analysis of the utilities placed in the same. Procedures are studied concerning property, titles, mechanic liens, obligations of contractors, etc. Fee, \$3.00. Credit, 3 hours.

225 *Aircraft Instruments.* The construction and operation of instruments that are used in connection with aircraft powerplants and also those recommended for successful flight operation. Fee, \$3.00. Credit, 3 hours.

252 *Broadening and Finding.* A continuation of I.A. 151, with some machine lathe practice, drill press work, milling machine work, and special problems. Fee, \$3.00. One lecture, six hours a week. Credit, 3 hours.

257 *Supervision and Administration of Industrial Arts.* Shop organization including the general principles of supervision applied to the teaching of shop classes and the practical application of industrial training to production. Classification of tools, tool operations, and projects. Purchasing of supplies and equipment. Prerequisites: 211, 212, or equivalent. Fee, \$3.00. Three hours a week. Credit, 3 hours.

260 *Advanced Wood Turning.* Instruction in all kinds of built-up, segmented and jointed projects. Prerequisite: I.A. 163. Fee, \$3.00. One lecture, six hours laboratory a week. Credit, 3 hours.

264 *Patternwork.* A study of draft, shrinkage, finish, warp, and shake. The construction of patterns involving the common problems of the pattern maker. Prerequisite: I.A. 163. Fee, \$3.00. One lecture, six hours laboratory a week. Credit, 3 hours.

269g *Pre-Flight Aeronautics for Teachers and Laymen.* Gives an insight into the world of aviation and practical applications of navigation, meteorology, use and care of instruments, civil air regulations, and operation of aircraft engine power plants. Meets the needs of teachers, and of those planning to do technical work. Fee, \$3.00. Three lectures a week. Credit, 3 hours.

280 *Construction of Graphs and Curves.* Suitable for use in giving visual display for shop industrial purposes. Fee, \$3.00. Credit, 3 hours. Six hours per week.

390 *Individual Problems.* Meets the needs of graduate students specializing in industrial arts who wish to investigate a problem of their own. Problems must be approved by the head of the department. Fee, \$3.00. Either semester. Hours and credit to be arranged.

# Library Science

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## BACHELOR (Librarian)

L. S. 203 *Book Organization*. An elementary study of the principles and practices of the Dewey Decimal classification, simplified cataloging, subject headings, alphabeting and filing. Designed especially for the small public or school library. Fee, \$1.00. Credit, 3 hours.

205 *Library Book Selection*. An introductory study of the techniques and problems of selecting books for the school or small public library, with attention given guides and aids, reading interests and patterns, publishers and dealers, acquisition and preparation. Fee, \$1.00. Credit, 3 hours.

206 *School Library Administration*. A study of the school library, its educational backgrounds and aims, activities and functions, personnel and management, materials and equipment, organization and administration. Credit, 3 hours.

240 *Book Services*. A survey of the principles and practices of the loan, reference and reading guidance services suitable for the small public or school library. Fee, \$1.00. Credit, 3 hours.

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# Department of Mathematics

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## LYON (Acting Head of the Department)

*Purposes*. Mathematics serves many purposes in a college education. Chief among these are the following: (1) A practical tool-subject for those who will enter the teaching profession. (2) A background for any scientific work undertaken later. (3) An essential background for those interested in general culture.

*The Major*. The major consists of twenty-eight semester hours of work completed successfully. The work is planned so that at least one course is taken each semester. Courses are chosen to fit the student's needs.

*The Minor*. There are two types of minors offered. One is designed for those entering the teaching profession. The other is for those planning careers in science. At least fifteen semester hours of work are required for the minor.

## Courses In Mathematics

**Math. 105 *Basic Mathematics.*** An intensive study of the fundamental mathematics encountered in everyday life. The course does not presuppose any knowledge of algebra or geometry. The work begins with arithmetic and the extent of the work depends upon the background and ability of the class being taught. Either semester. Credit, 3 hours.

**106 *Intermediate Algebra.*** This course includes the fundamental operations of algebra, graphing, variation, linear and quadratic equations, exponents and radicals. Students who have credit for three semesters of high school algebra will not receive credit for this course. Prerequisites: one year of high school algebra and one year of plane geometry, or Math. 105. Credit, 3 hours.

**107 *College Algebra.*** Includes a study of progressions, partial fractions, theory of equations, permutations and combinations, probability, and determinants. Prerequisites: Math. 106 or three semesters of high school algebra.

**108 *Solid Geometry.*** Includes a study of the important theorems of solid geometry with problems in measurement of the various solids. Prerequisite: Math. 106 or three semesters of high school algebra and one year of plane geometry.

**118 *Plane Trigonometry.*** Includes the solution of plane triangles, use of logarithms, trigonometric identities and equations, and complex numbers. Prerequisite: Math. 106 or three semesters of high school algebra and one year of plane geometry.

**120 *Analytic Geometry.*** A study of the use of coordinates in two dimensions, the straight line, polar coordinates, conic sections, and solid analytical geometry. Prerequisites: Math. 107, 118. Credit, 4 hours.

**122 *Differential Calculus.*** The topics studied in this course are: variables and functions, theory of limits, differentiation, applications of the derivative, integration of elementary functions with applications. Prerequisite: Math. 120. Credit, 4 hours.

**123 *Integral Calculus.*** A continuation of Differential Calculus. Further study and application of the processes of differentiation and integration, and infinite series. Prerequisite: Math. 122. Credit, 4 hours.

**125 *Advanced Geometry.*** The geometry of the triangle. No prerequisite beyond high school geometry. Second semester. Credit, 2 hours.

221g *Advanced Calculus*. Includes Multiple Integration. Partial Differentiation, Line Integrals, Applications, and other topics as far as time allows. Prerequisite: Math. 123. First semester. Credit, 4 hours.

224g *Special Topics in Mathematics*. Subject matter will vary from year to year, but will be connected with the teaching of high school mathematics. Prerequisite: Math. 123. Second semester. Credit, 4 hours.

241g, 242g *Theory of Functions*. Concepts of limits, continuity, derivatives, and the theory that underlies modern mathematical analysis. Four times a week throughout the year. Credit, 4 hours each. Not offered in 1945-1946.

250 *Thesis Work in Mathematics*. Independent study undertaken by the student, with occasional conferences with the instructor. Either semester, hours to be arranged. Credit, 1 or 2 hours.

301 *Theory of Numbers*. Study of the properties of whole numbers. First semester. Credit, 3 hours. Not offered in 1945-1946.

302 *Theory of Finite Groups*. Groups of presentation, the Galois theory. Second semester. Credit, 3 hours. Not offered in 1945-1946.

311 *Differential Geometry*. Three dimensional curves and surfaces and their properties. First semester. Credit, 3 hours. Not offered in 1945-1946.

312 *Projective Geometry*. Analytic study of the projective properties of figures. Second semester. Credit, 3 hours. Not offered in 1945-1946.

390 *Individual Problems*. Designed to meet the needs of those students wishing to investigate a problem of their own in Mathematics. Time and credit to be arranged.

*Note.* Certain upper division and graduate courses cannot be offered each year. The selection will depend upon the demand.

# Department of Music

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HARELSON (Head of the Department), BARKLEY, BULLOCK, HARGISS,  
LYON, QUAID

Courses offered by the music department are designed to prepare students to teach music in the public schools. Students desiring to major in music are tested to determine their fitness for this field and their probable success as teachers of music. For those not interested in teaching, opportunities are offered to acquire such theoretical knowledge and performance skills as appeal to their individual talents and interests.

All music majors are required to study voice for at least two years. All music majors and kindergarten-primary majors are required to show the equivalent of two years of piano study before graduation. This must include ability to read at sight music of hymn-tune difficulty, piano accompaniments for songs sung in the grades, and rhythm selections for lower grades. A minimum of one year of class instrumental instruction is required of all music majors. A second year of instrumental instruction is provided for in the music curriculum and will be required of students not majoring in violin or other orchestral instruments.

Satisfaction of the requirement for graduation in all forms of applied music will be determined on the basis of proficiency in performance, rather than on the number of lessons which have been taken. Students who are able to meet the specified requirements in voice, piano, or instrumental instruction may, upon examination, be excused from applied courses in the given subject with the approval of the head of the department.

## Majors and Minors

*The Major.* Students planning to major in music must meet the requirements of one of the curriculums printed in the section of the catalog headed "Curriculums". In addition they must meet the requirements in music as outlined below:

**Freshman Year.** Mus. 100, 102, 109; Piano, 2 hours; Voice or instrument, 2 hours; Glee club, band, or orchestra, 2 hours.

**Sophomore Year.** Mus. 103, 104, 143, 144; Piano, 2 hours; Voice or instrument, 2 hours; Glee club, band, or orchestra, 2 hours.

**Junior Year.** Mus. 205 or 207, 211, 212; Instrumental instruction, 2 hours; Glee club, band, or orchestra, 2 hours.

Senior Year. Mus. 202; Instrumental instruction, 2 hours; Glee club, band, or orchestra, 2 hours.

*The Minor.* Students majoring in other fields may elect a minor in music of at least fifteen semester hours with the advice of the head of the department.

*Vocal Music Minor.* The following sequence of courses is suggested: 100, 102, 09, 211, or 212. In addition, courses should be chosen from Applied Music, Piano, Voice, Glee Club, Orchestra.

*Instrumental Music Minor.* The following sequence of courses is suggested: 100, 102, 103, 109, 207. Work in band and orchestra should also be taken.

## Music Fees

<b>PIANO—</b>		Per semester
Two private lessons a week (half hour).....		\$36.00
One private lesson a week (half hour).....		27.00
Class lessons, four in a class (one hour).....		12.50
<b>VOICE—</b>		
Two private lessons a week (half hour).....		\$36.00
One private lesson a week (half hour).....		27.00
Two class lessons a week (one hour).....		9.00
(Limited to 10 in a class)		
Class lessons in voice are restricted to music majors and minors.		
<b>VIOLIN—</b>		
One private lesson a week (one hour).....		\$36.00
<b>VIOLONCELLO—</b>		
Two private lessons a week (half hour).....		\$36.00
One private lesson a week (half hour).....		27.00
<b>BAND AND ORCHESTRA INSTRUMENTS—</b>		
Two private lessons a week (half hour).....		\$36.00
One private lesson a week (half hour).....		27.00

## Courses In Music

**Mus. 100** *Fundamentals of Music.* A study of the basic elements of music with emphasis on notation, rhythm, formation of the major and minor scales, sight singing with and without syllables, and creative melodic writing. First year, either semester, twice a week. Credit, 2 hours.

**102** *Advanced Sight Singing and Ear Training.* Further development of music reading with special attention to aural recognition and writing. Prerequisite: Mus. 100. First year, either semester, twice a week. Credit, 2 hours.

**103** *Harmony I.* Intensive study of the grammar and structure of music with particular emphasis on four-part harmonic writing. The material covered includes interval and triad study; melodic writing;

and four-part writing in triad root positions, first inversions. Prerequisite: Mus. 102. Second year, first semester, three times a week. Credit, 3 hours.

104 *Harmony II*. A continuation of Music 103. Part-writing of triads in second inversions, and the use of the Dominant Seventh and Dominant Ninth, are covered. Emphasis is placed on the study and development of harmonic style through listening and analysis of the works of representative composers. Prerequisite: Mus. 103. Second semester, three times a week. Credit, 3 hours.

105, 106 *Voice—Private Instruction*. Voice building for beginners. Either semester, two lessons a week and five hours practice. Credit, 1 hour each.

107, 108 *Voice—Private Instruction*. Second year, further development in technique of voice production in singing. Prerequisites: Mus. 105, 106 or equivalent. Either semester, two hours a week. Credit, 1 hour each.

109 *Music Appreciation*. Designed to develop judgment and discrimination in listening to music. The material used consists largely of phonographic recordings. First year, first semester, twice a week. Credit, 2 hours.

111, 112 *Class Voice*. For music majors and minors, and kindergarten-primary majors with little or no previous training in voice. Either semester, twice a week. Credit, 1 hour each.

113, 114 *Piano—Private Instruction*. Courses arranged to meet the needs of students. Opportunity for public performance is provided through informal afternoon recitals during freshman and sophomore years. Either semester, one or two lessons a week. Credit, 1 or 2 hours each.

115, 116 *Piano—Private Instruction, Second Year*. Either semester, one or two lessons a week. Credit, 1 or 2 hours each.

121, 122 *Class Piano*. For music majors or minors, first year. Study of the elements of piano, keyboard technique and sight-reading of simple folk songs and studies. First semester, two lessons a week; second, one a week. Credit, 1 hour each.

123, 124. *Class Piano*. For music majors and minors, second year. Study of more advanced keyboard technique, sight-reading and memorization of repertoire. Either semester, one lesson a week. Credit, 1 hour each.

125, 126 *Class Piano*. For kindergarten-primary majors. First semester, a study of elements of keyboard technique and sight-read-

ing of folk song material in all keys. Second semester, sight-reading, improvisation and kindergarten-primary rhythms. First semester, two lessons a week; second, one per week. Credit, 1 hour each.

127, 128 *Class Piano*. For kindergarten-primary majors. Second year. Further study of kindergarten-primary literature and technique necessary to fluency of performances. Either semester, one lesson a week. Credit, 1 hour each.

130 *Introduction to Music*. A non-technical study of the general field of music, with attention toward the correlation of music with literature, science and art. First semester. Twice a week. Credit, 2 hours.

151, 152. *Women's Glee Club*. Open to qualified women students. Apply to the director. Students should retain membership throughout the year in order to receive the benefit of public appearance in the mid-winter and spring. Any year, four times a week unless otherwise arranged. Credit, 1 hour each.

155, 156 *Class Violin*. Open to beginners only. A study of the fundamentals of violin and viola, and their use in public school music. Daily individual practice is required. No fee. Either semester, twice a week. Credit, 1 hour each.

161, 162 *Class Instrumental Instruction*. Brass, reed, and percussion instruments. Students sufficiently proficient are admitted to the college band or orchestra. A fee of \$2.50 per semester is charged for instruments furnished by the college. Each semester, twice a week. Credit, 1 hour each.

165, 166 *College Orchestra*. The major objective is the study of symphonic musical literature. The orchestra participates in college assembly programs and provides incidental music for major productions of the drama department. Membership is selective. Twice a week, either semester. Credit, 1 hour each.

171, 172 *Violin—Private Instruction*. First year. Either semester, one lesson a week. Credit, 1 hour each.

173, 174 *Violin—Private Instruction*. Second year. Either semester, one lesson a week. Credit, 1 hour each.

181, 182 *Violoncello—Private Instruction*. The study of cello technique and of works by representative classical and modern composers, graded according to the needs of the student. Either semester, two lessons a week. Credit, 1 hour each.

187, 188 *Band and Orchestra Instruments—Private Instruction*. Students with or without previous training may elect this course.

Instruction is adapted to the needs of the individual student. Either semester, two lessons a week. Credit, 1 hour each.

201 *Harmony III*. A continuation of Music 104. Material covered includes chords of the Eleventh and Thirteenth, the altered and mixed chord structures, modulation of all types, intensive analysis of the harmonic structures of modern music, and creative writing in various forms. Prerequisite: Mus. 104. Third year, first semester, three times a week. Credit, 3 hours.

202 *Literature and History of Music*. A general survey of music from its pre-Grecian sources down to the twentieth century with emphasis on style and form. Periods covered include the Grecian, Gregorian, Gothic, Discant, Renaissance, the growth of Opera, of instrumental music, and charting of the general trends from Bach through Schonberg. Prerequisite: Mus. 109. Fourth year, second semester, three times a week. Credit, 3 hours.

205 *Choral Conducting*. Study of all the elements of choral technique and interpretation. Required of all music majors unless registered for Music 207. Third year, first semester, three times a week. Credit, 3 hours.

206 *Accompanying*. Includes accompaniment of vocal and instrumental solos and of group and choral singing. Either semester. Credit, 1 hour.

207 *Instrumentation and Conducting*. For teachers of instrumental music. In addition to conducting, the work covers the range, tuning, and playing technique of the various band and orchestral instruments, transposition and possible substitution. Required of music majors unless registered for Music 205. Prerequisites: band or orchestra, and theory courses of the first three years or equivalent. Third year, first semester, three times a week. Credit, 3 hours.

211 *Music Education—Primary and Intermediate Grades*. Problems in supervising and teaching music in the modern elementary school. Prerequisites: Mus. 100, 102 or their equivalent. Third year, first semester, three times a week. Credit, 3 hours.

212 *Music Education—Junior and Senior High School*. The study of problems, materials, and rehearsal techniques. Emphasizes the relationship of the music department to the whole school program. Prerequisites: Mus. 100, 102, 211. Third year, second semester, three times a week. Credit, 3 hours.

233, 234 *Piano—Private Instruction*. Third year. Participation in formal public recitals required. Either semester. Credit, 1 or 2 hours each.

235, 236 *Piano—Private Instruction.* Fourth year. Participation in formal public recitals required. Either semester. Credit, 1 or 2 hours each.

237, 238 *Voice—Private Instruction.* Third year. Participation in formal public recitals required. Either semester, two lessons a week. Credit, 1 hour each.

239, 240 *Voice—Private Instruction.* Fourth year. Participation in formal public recitals required. Either semester, two lessons a week. Credit, 1 hour each.

250 *Music in the Kindergarten and Primary Grades.* Considers materials, problems, and the place of music in the modern primary school. Opportunity is provided for observation and directed teaching. Prerequisites: Mus. 100, 102. Third year, twice a week. Credit, 2 hours.

271, 272 *Violin—Private Instruction.* Third year. Participation in formal public recitals required. Either semester. Credit, 1 hour each.

273, 274 *Violin—Private Instruction.* Fourth year. Participation in formal public recitals required. Either semester. Credit, 1 hour each.

284g *Counterpoint.* The Polyphonic vocal style of the sixteenth century. Prerequisite: Mus. 201. Second semester, three times a week. Credit, 3 hours.

288g *Composition.* Analysis and practical application of harmony to the smaller formal designs and methods of structural treatment in musical composition. Prerequisite: Mus. 201. Second semester, three times a week. Credit, 3 hours.

292g *Form and analysis.* The intimate study of various musical forms with emphasis on the development and application of the sonata to the symphony and chamber music. Admission by permission of instructor. First semester, three times a week. Credit, 3 hours.

390 *Individual Problems.* For graduates only who wish to pursue a special problem in any phase of music. Credit and hours arranged.

# Department of Health and Physical Education

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LAVIK (Head of Department), MURPHY (Director of Women),  
KLANN, LEVIS, REDMAN

*Purposes.* It is the purpose of this department: (1) To provide an interesting and beneficial program of activity for each student. (2) To prepare teachers who are interested in teaching Health and Physical Education. (3) To provide coaching and supervision experiences in intramural and intercollegiate athletic events.

*General Information.* No student is excused from Physical Education but program adjustments are arranged to care for those with physical handicaps. Physical Education uniforms for both men and women are required for certain activity classes and may be obtained at the college book store. Opportunity is provided for all men to take part in intramural and intercollegiate athletic participation. Intercollegiate athletics are subject to the eligibility rules of the Border Faculty Athletic Conference. The intramural sports and dance programs for women are sponsored by the Women's Athletic Association, and provide opportunity for all to participate in some form of physical activity and recreation. The major requires from twenty-four to thirty, and the minor from fifteen to eighteen semester hours of work.

*The Major.* A student desiring to major in Physical Education, or a student desiring the special certificate in Physical Education must include in his program certain of the following courses according to the recommendation of the head of the department.

Men. First and second years, P. E. 109, P. E. activity courses, Biol. 171, 172. Third and fourth years, P. E. 217, 218, 222, 236, 251, 254, and activity courses.

Women. First and second years, P. E. 109, 131-I, 132-II, 161, 162, 186, 187, P. E. Activity courses, Biol. 171, 172. Third and fourth years, P. E. 131-III, 132-IV, 222, 236, 251, 254.

*Minor in Physical Education.* A student wishing to minor in Physical Education should take the following courses:

Men. P. E. 217, 218, 222, 236, 251, and 2 hours P. E. activity courses.

Women. P. E. 161 or 162, 171 or 172, 186, 187, 109 or 236, 222, 175, 251, one hour dance and one hour sport activity or P. E. 131, 132.

*Minor in Health Education.* A student wishing to minor in Health Education should take the following courses: P. E. 185, 236, 240, and P. E. activity courses. Biol. 171, 172, H. Ec. 101.

## Description of Courses In Health and Physical Education

### Activity Courses for Men

P. E. 107, 108 *Sports Survey.* Instruction in individual and team sports. Required of all men in the freshman year. Participation in varsity or freshman athletics may not be substituted. Twice a week. Credit,  $\frac{1}{2}$  hour each.

111, 112 *Athletics.* Open to men accepted as candidates for varsity or freshman teams representing the college. Five times a week. Credit,  $\frac{1}{2}$  hour each.

115, 116 *Minor Sports.* A continuation of P. E. 107, 108. Includes such sports as golf, tennis, swimming, handball, volleyball, badminton, shuffleboard, deck tennis, hiking. Second year, twice a week. Credit,  $\frac{1}{2}$  hour each.

125, 126 *Boxing.* Twice a week. Credit,  $\frac{1}{2}$  hour each.

127, 128 *Wrestling.* Twice a week. Credit,  $\frac{1}{2}$  hour each.

### Theory Courses for Men

172 *Fundamentals of Scouting.* The philosophy of scouting organization and practices. Actual practice in scoutcraft. Those completing the course receive Elements of Scoutmastership Certificates, Parts I and II. First semester, three times a week. Credit, 3 hours.

217, 218. *Coaching.* Theory and techniques of major sports. These include football, basketball, track and baseball. Required of all men who major in health and physical education. Twice a week. Credit, 2 hours each.

256 *Advanced Scouting.* Principles of scout and cub leadership, and special organization courses. Leadership certificates awarded on completing course. Prerequisite: P. E. 172 or equivalent. Second semester, three times a week. Credit, 3 hours.

### Activity Courses for Women

Two semester hours of activity courses are required of all women during their freshman and sophomore years. It is suggested that one hour be elected from the sport activities, the other hour from

the dance activities. Not more than one-half hour in Beginning Social Dance may be applied toward this requirement.

101 *Sports Survey*. Badminton, volleyball, and basketball. First semester, twice a week. Credit,  $\frac{1}{2}$  hour.

102 *Sports Survey*. Speedball, softball, track, and minor team games. Second semester, twice a week. Credit,  $\frac{1}{2}$  hour.

103, 104 *Athletics*. Advanced work in touch football, basketball, volleyball, softball, and track. Four times a week. Credit,  $\frac{1}{2}$  hour each.

### Activity and Theory Courses (Open to Men and Women)

100 *Hygiene*. Required of all students. Separate sections for men and women. Twice a week. Credit, 2 hours.

H. Ec. 101 *Elementary Nutrition*. See description under Home Economics. First semester, twice a week. Credit, 2 hours.

109 *Introduction to Physical Education*. An orientation and guidance course. Required of all freshmen majoring in physical education. Separate sections for men and women. Three times a week. Credit, 3 hours.

110a *Tap and Clog*. Beginning elementary techniques; simple routines. Either semester, twice a week. Credit,  $\frac{1}{2}$  hour.

110b *Advanced Tap and Clog*. Advanced techniques and routines. Prerequisite: P. E. 110a. Twice a week. Credit,  $\frac{1}{2}$  hour.

120a *Golf*. Beginning class. Fee, 50 cents. Twice a week. Credit,  $\frac{1}{2}$  hour.

120b. *Advanced Golf*. Advanced technique, fundamentals and course experience. Prerequisite 120a or previous playing experience. Fee, 50 cents. Twice a week. Credit,  $\frac{1}{2}$  hour.

Biol. 171-172 *Human Anatomy and Physiology*. See description under Biology. Fee, \$2.00. Three times a week. Credit, 3 hours each.

123, 124 *Tumbling*. Beginning and advanced sections for men. A separate beginning section for women. Twice a week. Credit,  $\frac{1}{2}$  hour each.

130a *Tennis*. A class for beginners. Twice a week. Credit,  $\frac{1}{2}$  hour.

130b *Tennis*. An advanced class. Prerequisite 130a or previous playing experience. Twice a week. Credit,  $\frac{1}{2}$  hour.

131 *Technique I.* Modern dance, hockey, volleyball, touch-ball, and golf. Required of all women majors. First semester, five times a week. Credit, 1 hour.

132 *Technique II.* Tap, clog, folk dance, basketball, softball, track, archery and tennis. Required of all women majors. Second semester, five times a week. Credit, 1 hour.

140a *Archery.* A beginning class. Bows and arrows furnished. Fee, \$1.00. Three times a week. Credit, ½ hour.

140b *Archery.* An advanced class. Bows and arrows furnished. Fee, \$1.00. Three times a week. Credit, ½ hour.

150a *Beginning Social Dancing.* The fundamentals of this type of dancing. Not more than one semester accepted for required physical education credit. Twice a week. Credit, ½ hour.

150b *Advanced Social Dancing.* Advanced steps and combinations, and practice in current steps. No credit toward the two hour P. E. requirement. Twice a week. Credit, ½ hour.

160 *Fencing.* A class for beginners. Twice a week. Credit, ½ hour. Not offered in 1945-1946.

161 *Dance In Education.* A study of the history and values of the various types of dances, fundamentals of dance composition, and analysis of rhythmic form. Theory and practice in the use of percussion instruments in teaching rhythmic activities. First semester, three times a week. Credit, 2 hours.

162 *Techniques of Dancing.* Methods of teaching folk, tap, social, and creative dancing. Problems in dance production, costume, and organization. Prerequisite: P. E. 161. Second semester, three times a week. Credit, 2 hours.

167 *First Aid.* The principles of first aid and their applications in practice. Demonstrations of the proper use of first aid materials and methods. Once a week. Credit, 1 hour.

169 *Nurses Aide.* Gives instruction in theory and history of nursing, bedside nursing, and hospital practices. After completion of this course, forty-five hours spent in hospital work gives the nurses-aide diploma. Twice a week. Credit, 2 hours.

170 *Folk and Character Dance.* A study of European, cowboy, early American, and barn dances suitable for elementary grades and high schools. Either semester, twice a week. Credit, ½ hour.

180a *Beginning Modern Dance.* Fundamentals of body movement through exercise are given and carried out in simple dance forms. Twice a week. Credit,  $\frac{1}{2}$  hour.

180b *Advanced Modern Dance.* A study of advanced techniques and creation of dances suitable for programs. Prerequisite: P. E. 180a. Twice a week. Credit,  $\frac{1}{2}$  hour.

185 *Principles of Health Education.* A study of the underlying principles, the aims, and objectives of school health education. A survey of available teaching materials. A study of official and non-official health agencies. First semester, three times a week. Credit, 3 hours.

186, 187 *Coaching.* Theory and technique of major and individual sports. Practical experience in game officiation. Required of all women majors. Twice a week. Credit, 2 hours each.

210 *Camp Fire Leadership.* Theory and practice of Camp Fire with special attention to practical programs. Successful completion of course leads to a certificate of training from National Camp Fire Headquarters, antecedent to later appointment as a Guardian. Fee, 75 cents. Second semester, once a week. Credit, 1 hour. Not offered during 1945-1946.

220 *Playground Leadership.* A study of the games suitable to the playground and other phases of the physical education program in the elementary school. Practical experience in organizing, promoting, and directing them. Should be taken before or with directed teaching. Required of all students seeking the elementary certificate. Five times a week. Credit, 2 hours.

222 *The Teaching of Physical Education.* Required of major students prior to student teaching. First semester, twice a week. Credit, 2 hours.

230 *Social Recreation.* Study in social recreational activities for the home, school and community and their leadership. Twice a week. Credit, 2 hours. Not offered in 1945-1946.

236g. *Organization and Administration of Health and Physical Education.* A study of the organization, administration, and supervision of the physical education program in elementary and high schools. Separate sections for men and women. Three times a week. Credit, 3 hours.

Ed. 238g *Extracurricular Activities.* See description under the Department of Education.

240 *Public Health Education.* A nine weeks' course in communicable diseases and health education. Three times a week. Credit, 1½ hours. Not offered in 1945-1946.

251 *Applied Anatomy and Kinesiology.* Origins, insertions, and actions of muscles with emphasis on postural problems. Prerequisites: Biol. 171, 172. Three times a week. Credit, 3 hours.

254g *Physiology of Exercise.* The effects of exercise upon bodily functions. Required of all majors. Prerequisites: Biol. 171, 172. Three times a week. Credit, 3 hours.

390 *Individual Problems.* Study and investigation of current problems in health and physical education.

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## Department of Psychology

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SKINNER (Head of Department), GRIMES, BURKHARD,  
GURNEE, RICHARDSON, ROLL

*Purposes.* The first aim of the work of the department is to give college students an understanding of the psychological principles that will enable them to make a satisfactory adjustment to the problems of everyday living. A second important aim is to apply these principles to the problems of the schoolroom so that the children may make a better adjustment to their problems. A third aim is to give the background necessary to those who plan to do special work in the field of psychology.

*Majors and Minors.* The major consists of at least twenty-four semester hours of work, and the minor of at least fifteen hours. The courses constituting the major or the minor will be selected to meet the needs of the individual student.

### Description of Courses Offered

Psych. 100 *Elementary Psychology.* A study of such activities as emotions, motives, thinking, observing, learning, and intelligence. The purpose of the course is mainly twofold: to acquaint the student with psychological facts which are known to be an important condition of vocational and social adjustment, and to supply a foundation for work in advanced psychology and in education. Credit, 3 hours.

200 *Educational Measurements.* The meaning of measurement and its place in education; types of educational and psychological tests and their functions; selection, interpretation and use of tests in guidance, classroom situations, supervision and administration; practice in giving standardized tests and interpreting results. Prerequisite: Psych. 100. Fee, 50 cents. Either semester. Credit, 3 hours.

208 *Mental Hygiene and Abnormal Psychology.* Considers the psychological and environmental factors essential to the building of good mental health. Stresses the origin, development, prevention, and treatment of behavior problems in children and adults. Attention is given to mental deficiency and prevalent types of insanity. Prerequisite: Psych. 100. Credit, 3 hours.

211g *Statistical Methods.* Stresses the interpretation and application of statistics as employed in education and psychology instead of mathematical theory. Topics include the assembling and analysis of data, the computation, interpretation, and use of measures of central tendency, variability, reliability, and simple correlation. Prerequisite: Psych. 100. Credit, 3 hours.

213 *Educational Psychology.* An analysis and application of psychological facts and laws which are particularly relevant to the problems of education. Among the topics to which attention is given are: transfer of training; the development of comprehension, perception, and various mental abilities; conditions of emotional and social adjustment and their effect on behavior in the classroom; varieties and principles of learning; guidance in learning and problem-solving. Prerequisite: Psych. 100. Credit, 3 hours.

214 *Applied Psychology.* Application of psychological principles in business, industry, medicine, law and personnel. Considers social and vocational problems, factors making for personal efficiency. Vocational and personality tests. Prerequisite: Psych. 100. Credit, 3 hours.

220g *Individual Mental Testing.* For students who wish to do individual testing while in teaching or other service. A study of the Stanford-Binet and other scales, and of performance tests. Students practice giving these tests until proficiency is reached both in administration and interpretation. Prerequisites: Psych. 100, 200. Fee, \$1.00. Credit, 3 hours.

224g *Clinical Psychology.* Survey of clinical work on diagnosis and adjustment of problem children. Intelligence, performance, and achievement tests are analyzed and demonstrated. Educational and other adjustment problems are diagnosed and remedial measures

are suggested. Individual testing. Prerequisites: Psych. 100, 200. Fee, \$1.00. Credit, 2 hours.

225g *Social Psychology*. A study of the behavior of man in his social relations. Problems of crowd behavior, social control, propaganda, suggestion, imitation, competition, cooperation, and leadership are among those considered. The main purpose is to develop an understanding of the major psychological forces which are at work in community, state, and nation, both here and abroad. Prerequisite: at least two courses in Psychology. Credit, 3 hours.

231g *Psychology of Adolescence*. A presentation of facts on growth and development; physical, mental, moral and social traits of adolescence; the prediction and control of behavior; and their bearing upon the problems of instruction in junior and senior high schools. Prerequisite: Psych. 100. Credit, 2 hours.

234 *Child Psychology*. A study of physical, mental, emotional, and social development of the child from birth to adolescence. The period from five to ten years is especially emphasized. Designed to meet the needs of those planning to teach in the kindergarten, primary, or intermediate grades. Prerequisite: Psych. 100. Credit, 3 hours.

235g *Individual Differences*. The nature and the extent of psychological differences, among both individuals and groups, and the significance of these differences for curriculums and educational methods. Prerequisites: Psych. 100, 200, 213. Credit, 2 hours.

240g *Psychology of Personality*. The elements of personality, and the conditions which determine the pattern and the direction of its growth; an analysis of temperament, disposition, and other traits; characteristics of arrested, regressive, and mature personalities; methods of judging personality and character. Prerequisite: at least two courses in psychology. Credit, 2 hours.

241g *Psychology Problems and Research*. Considers psychological subjects which are not adequately covered in the introductory course, such as: Psychological methods of research, results of important investigations, physiological psychology, and schools of psychology. Each student will carry out some research work. Credit, 3 hours.

245g *Psychology of Religion*. A scientific approach to problems and experiences in the field of religion. The course will deal with methods and techniques for gathering and evaluating data. Activity will be directed toward making constructive evaluations of social experiences acquired in community life. Prerequisites: at least two courses in psychology. Credit, 3 hours.

308 *Advanced Educational Psychology.* A critical review of the more important scientific publications on the facts, laws, and theories of learning, with particular reference to those problems of education to which such contributions apply. Prerequisites: at least two courses in psychology. Credit, 3 hours.

313 *Recent Studies in Educational Psychology.* A critical survey of some of the latest experimental reports, particularly the reports which are most relevant to current problems of teaching, administration, and supervision. Prerequisites: at least two courses in psychology. Credit, 2 hours.

322 *Psychology and Education of Exceptional Children.* Presents the psychological principles most essential for the understanding and education of exceptional children. Considers the education and training of children suffering from common forms of defect, and the education of gifted children. Prerequisite: Psych. 100. Credit, 2 hours.

333 *Personnel Techniques and Problems.* Application of psychological principles to student, business and industrial personnel problems. Prerequisite: at least eight hours in psychology. Credit, 2 hours.

335 *Aptitudes and Aptitude Tests.* A study of the theory of aptitudes, types of aptitude tests, and the use of aptitude tests, their selection, administration, and interpretation in the guidance program. Credit, 3 hours.

390 *Individual Problems.* Designed to meet the needs of those students wishing to investigate a problem of their own in any field of Psychology. Credit and hours to be arranged.

# Department of Sciences

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BATEMAN (Head of the Department), JUDD, OSTRANDER, MORTENSEN, STAHNKE, MORAN

The department of sciences offers courses in the following fields: Biology, Chemistry, Geography, General Science, Geology and Physics. The work in this department is designed to meet the needs of the following: (1) Students desiring a cultural or broadening training in the field of science. (2) Prospective elementary and secondary teachers who plan to major in one of the divisions of science. (3) Prospective teachers who require prerequisite training in science for majors, such as Home Economics or Physical Education. (4) Pre-professional or other students requiring lower division science courses to meet the requirements of the various professional, academic and vocational fields such as Agriculture, Medicine and Research, and who plan to continue their work at another college.

## Science Majors and Minors

The science department offers science majors for elementary teachers, and for secondary teachers. Preprofessional majors in Biological Science and Physical Science are also available for students who desire basic training in these fields. Students electing to concentrate in science will plan their program under the direction of the department head and the special adviser in the field of their concentration.

*Majors for Elementary Science Teachers.* Students following the elementary curriculum may elect a major in elementary science. A total of twenty-four or more hours are required for this major. The following courses are required: G. S. 100, 110, Geog. 100, Chem. 110, Biol. 172, 231.

A total of twelve additional hours may be selected from the following: Geog. 101, Phys. 116, Geol. 151, Chem. 180, Biol. 204.

*Majors for Secondary Teachers.* Students following the secondary curriculum may elect a science major. Those who plan to teach science in the secondary schools should take basic courses in mathematics, chemistry, physics and biology. Over-specialization is to be avoided, since the prospective teacher may find it necessary to instruct in one or all of the above fields. To complete a secondary science major, twenty-four hours, exclusive of the curriculum requirement in general science, must be completed from the following sequences:



Getting ready for tomorrow's food . . . Nursing  
Dietician . . . Commercial Art





Preparation for a new age of Science . . . Biology Laboratory . . . Chemistry Laboratory  
. . . Research Laboratory . . .



First Year. Chem. 111, 112 or Biol. 130, 140.

Second and Third Year. Chem. 111, 112, or Biol. 130, 140, Math. 111, 112, Chem. 131, 142, Biol. 134, 163, 172, Geol. 151, Phys. 111, 112.

Fourth and Fifth Year. Chem. 180 or 211, 212, 282, Biol. 183, 203, 204, 213, 222, 224, 234.

*Majors for Preprofessional Students.* Individuals planning to study pre-medicine, pre-dentistry, medical technology, nursing and related fields should consult the type curriculums which are listed in this catalog. Majors are offered in Biological Science, Chemistry, Geography or combinations of these fields. Two, three or four year curriculums may be arranged for students who may desire to qualify for positions in Civil Service, Forestry, National Park Service, Soil Conservation, Fish and Game Propagation, Quarantine Stations, Rodent Control, Biological Survey and other fields. If these students plan to graduate from this college, they should meet the requirements of the general curriculum for graduation. In addition they should complete a major of twenty-four hours or more from one of the sequences given below:

#### Biological Sciences.

First Year. Chem. 111, 112, Biol. 130, 140.

Second and Third Years. Biol. 133, 134, 163, 171, 172, 183, 204, Chem. 180.

Fourth Year. Biol. 213, 216, 219, 224, 234, Chem. 282.

#### Physical Sciences.

First and Second Years. Chem. 111, 112, 131, 142, Math. 111, 112, Phys. 111, 112, Biol. 130, 140, Geol. 151, G. S. 121.

Third and Fourth Years. Chem. 211, 212, 282, 290, Geol. 252, Phys. 201, 202, Biol. 183.

*The Minor.* Fifteen hours representing the student's minor interest to be chosen in conference with the department head and the instructor. This work may be selected from any one of the following fields: biology, chemistry, geography, physics, or general sciences.

## Description of Courses

### General Science

G. S. 100 *Introduction to the Physical Sciences.* A richly demonstrated treatment of the fundamental facts of the physical sciences found in the fields of physics, chemistry, meteorology, geology, and

astronomy. The scientific method of approach to problem solving and the applications of the physical sciences to daily life are stressed. This course does not meet the science requirements in preprofessional curriculums, such as medicine, agriculture, and dentistry. Fee, \$1.00. Either semester, four lecture-discussions per week. Credit, 4 hours.

110 *Introduction to Biological Science*. A study of fundamental concepts that govern the activities of living things from the standpoint of origin of life, structure and function of both plant and animal bodies, genetics, geographic distribution, ecology and behaviorism. Emphasis on conservation and improvement of animals and plants in general and of man in particular. Laboratory work is based upon specimens from representative groups of plants and animals. This course does not meet the science requirement in preprofessional curriculums such as medicine, agriculture, and dentistry. Lab. fee, \$2.00. First year, either semester. Three lectures and one three-hour laboratory period each week. Credit, 4 hours.

121 *Elementary Photography*. Light and its behavior, lenses, camera construction and performance, exposures, developing, printing, enlargement, making of lantern slides, copying, intensification, composition. For the amateur, or the teacher who wishes to make use of photography as an aid to his teaching. Prerequisite: Chem. 110 or Chem. 112. Fee, \$3.50. First semester, two lectures and three hours of laboratory a week. Credit, 3 hours. Not offered in 1945-1946.

231 *Science For The Elementary School*. A combination "content-methods" course emphasizing the development of an integrated science program in each grade from the kindergarten through the junior high school. Lectures, library reports, class discussions, field observations, and camping trips. Prerequisites: G. S. 100, 110, or equivalent. Fee, \$1.00. First semester, three lecture-discussion periods a week. Credit, 3 hours.

## Geography

Geog. 100 *Elements of Geography*. An introduction to the elements of geography, such as climate, relief of the land, drainage, soils, plant and animal life; their inter-relationship and influence upon man and his activities. To provide the student with background and a technique for the teaching of geography. Fee, 50 cents. Either semester, three times a week. Credit, 3 hours.

101 *Economic Geography*. A study of the production, distribution and consumption of the various types of commodities related to

agriculture, herding, lumbering, mining, fishing, manufacturing, and other leading activities of man. Special emphasis upon international trade and the trade routes of the world. Prerequisite: Geog. 100. Fee, 50 cents. Three times a week. Credit, 3 hours.

120 *Map Interpretation*. An introductory course to the reading of topographic maps of the United States. Emphasis is placed on the construction and profiles; the interpretation of graphic and fractional scales; and cultural, relief, and water symbols. Correlations made to determine their influences upon man's activities. Prerequisite: Geog. 100 or Geol. 151. Fee, \$1.00. Twice a week. Credit, 2 hours. Not offered 1945-1946.

203 *Geography of Europe*. A study of the natural regions of Europe, their climates, relief features, drainage, soils, plants, and animals, as well as their influence upon man's activities. Prerequisite: Geog. 100. Fee, \$1.00. Three times a week. Credit, 3 hours. Not offered 1945-1946.

204 *Geography of North America*. A study of the physiographic provinces of the continent with their respective climates, products, and major activities of man. Prerequisite: Geog. 100 or 101. Fee, \$1.00. Three times a week. Credit, 3 hours. Not offered 1945-1946.

205 *Geography of South America*. A regional study of a continent. An analysis of the various physiographic regions, their climates, products, and human activities. Prerequisites: Geog. 100, 101, or 204. Fee, \$1.00. Three times a week. Credit, 3 hours. Not offered 1945-1946.

206g *Geography of Arizona*. A study of the physical features of the landscape, their origin and distribution throughout the state. Emphasis upon the climate, soils, minerals, drainage, plant and animal life, and their influence upon man's activities. Prerequisite: Geog. 100 or Geol. 151. Fee, \$1.00. Twice a week. Credit, 2 hours. Not offered 1945-1946.

210g *Geography Of Trade and Transportation*. A geographical analysis of the world's trade routes by land, sea and air, with emphasis upon the world's leading railway routes, steamship lanes, inland waterways, auto highways, and modern air routes to leading trade centers of the world. Prerequisite: Geog. 100. Fee, \$1.00. Three times a week. Credit, 3 hours. Not offered 1945-1946.

217g *Conservation Of Natural Resources*. A study of the distribution of the natural resources of the United States. Emphasis is placed upon the most efficient use and conservation of our resources, including a study of the problem of land reclamation, soil erosion,

forest depletion, control of water supply for domestic and industrial uses, development of water power, flood control, improvement of mining methods, preservation of wild life, and establishment of recreational facilities. Fee, \$1.00. Three times a week. Credit, 3 hours.

222g *Physiography of the United States*. The analysis of the physiographic regions of the United States, with emphasis upon the various geological processes involved in their formation and their influences upon the major activities of man. Two recitation-lectures and one two-hour laboratory per week. Prerequisite: Geog. 100, or Geol. 151. Fee, \$1.00. Credit, 3 hours. Not offered 1945-1946.

## Geology

Geol. 151 *Fundamentals of Geology*. A study of the processes that change the character of the earth's surface and its interior. Includes a study of wind, weathering, rivers, waves, currents, underground waters, ice, and volcanism. A study of the earth's interior, character of its rocks, origin and deformation of its crust by internal forces. Laboratory work with rocks and minerals, topographic maps. Field trips. Three recitation-lectures and two hours of laboratory per week, and minimum of eighteen hours of field work per semester. Fee, \$2.00. Credit, 4 hours. Not offered 1945-1946.

252 *Historical Geology*. A study of the distribution, origin and chronological succession and development of earth rock formations and of organisms, as well as of contemporaneous events that marked the beginning or end of a geologic time period. Prerequisite: Geol. 151. Three recitation-lectures together with laboratory assignments. Fee, \$2.00. Credit, 3 hours. Not offered 1945-1946.

## Biological Sciences

Biol. 130 *General College Botany*. A brief survey of the lower plant groups—their morphology and ecological relationships. More detailed study of the flowering plants—their taxonomy, morphology, ecology, growth and propagation. The principles of genetics with particular application to plant improvement. Fee, \$2.00. Three lectures and three hours laboratory per week. Credit, 4 hours.

133 *Plant Anatomy*. The morphology of plant cells, tissues, and the tissue system. A study of prepared slides and fresh materials in the laboratory. Required for majors in biological science and in agriculture. Prerequisite: Biol. 130. Fee, \$2.50. First semester, two hours lecture and six hours laboratory a week. Credit, 4 hours.

134 *Plant Physiology*. A study of the plant functions of absorption, food synthesis, nutrition, respiration, growth and reproduction, with special reference to agricultural practices. Prerequisites: Biol. 133, Chem. 111, 112. Fee, \$3.00. Second semester, two lectures, six laboratory hours a week. Credit, 4 hours.

140 *General Zoology*. General principles of animal structure and function and comparative methods of reproduction. Systematic classification and a consideration of the geographical distribution in relation to the origin and development of animal life. Fee, \$3.00. Either semester, three lectures, three hours of laboratory a week. Credit, 4 hours.

163 *Comparative Anatomy of Vertebrates*. A study of the structure, development, and homology of the organ systems of vertebrates. Laboratory dissection of the shark, frog, pigeon, and cat. Alternates with Biol. 225. Prerequisites: Biol. 112, 120. Fee, \$5.00. Two lectures, two three-hour laboratory periods a week. Credit, 4 hours.

171 *Human Anatomy-Physiology*. A study of the normal structure and function of the following systems of the human body: skeletal, articulatory, muscular, integumentary and nervous systems, as well as the organs of special sense. Partially fulfills the anatomy and/or physiology requirements for physical education majors and pre-nursing students. Prerequisites: none, however, either high school biology or chemistry, or G. S. 110, or Biol. 140 and Chem. 110, or the equivalents are strongly recommended. Fee, \$2.00. Three lectures per week. Credit, 3 hours.

172 *Human Anatomy-Physiology*. A study of the normal structure and function of the following systems of the human body: circulatory, respiratory, digestive, excretory, endocrine, and reproductive systems. Partially or completely fulfills the anatomy and/or physiology requirements for physical education and home economics majors, and for pre-nursing students. It is desirable to take Biol. 171 first; however, it is not required.

183 *General Bacteriology*. Emphasis upon the fundamental principles of bacteriology, and their hygienic, industrial and agricultural application. Organisms representing the principal groups are studied in cultural and microscopic preparations. Milk, soil, water and hygienic surveys are conducted by the students. Prerequisite: Biol. 110 or equivalent. Fee, \$5.00. First semester, two lectures and three two-hour laboratory periods per week. Credit, 4 hours.

204g *Genetics and Eugenics*. The principles of heredity and their application to social and educational problems. A continuation of

the study of the biological principles underlying race betterment. Prerequisites: Biol. 130, 140 or equivalent. Three lectures a week. Credit, 3 hours.

204Ag *Laboratory Course In Genetics*. The study is based on fruit fly breeding and herediscope problems. Prerequisite: Biol. 204 or concurrent registration. Fee, \$1.00 per hour. Credit, 1-2 hours.

213g *Plant Ecology*. Origin and development of vegetation, and measurements in the field of factors of the environment, with applications to agriculture, forestry, grazing, and general crop production. Prerequisite: Biol. 130. Fee, \$2.00. First semester, three lectures and one laboratory period a week. Credit, 4 hours.

Ag. 216g *Plant Breeding*. The principles and practice of plant breeding, techniques, and improvements by selection and hybridization. Prerequisite: Botany, Plant Industry, and Genetics. Fee, \$2.00. Second semester, three lectures a week. Credit, 3 hours.

Ag. 219g *Animal Breeding*. The principles of genetics are applied to the problems and techniques of animal breeding. Includes the study of pedigrees, line-breeding, in-breeding, out-cross, hybridization, and breeding indices. Prerequisites: Biol. 140, 204. First semester, three lectures a week. Credit, 3 hours.

221 *Poisonous Animals of Arizona*. A study of the animals of Arizona that are poisonous or are thought to be poisonous by the layman. Includes identification, nature of venom, structure of poison injecting apparatus, reaction of poison in animals and treatment for counteracting the effects of the venom injected in man. Lecture-demonstration. Alternates with Biol. 222. Prerequisite: G.S. 110 or equivalent. Fee, \$1.00. Second semester, two lectures and one four-hour laboratory or field trip per week. Credit, 3 hours.

222 *General Entomology*. A study of insects including general structure, physiology, habits, life histories, and classification. Special emphasis will be given to the economic importance of insects. Laboratory work consists of field observations and in making and naming a personal collection of insects. Alternates with Biol. 160. Prerequisite: Biol. 140 or equivalent. Fee, \$3.00. Second semester, two lectures, and one four-hour laboratory or field trip per week. Credit, 3 hours. Not offered 1945-1946.

224g *Animal Ecology*. A survey of the wild animals of North America stressing responses and adaptations, natural organization of animal communities, population equilibrium, succession, habitat, types, and methods of conservation. Second semester, three lectures a week. Credit, 3 hours.

234 *Embryology*. Animal development, mainly of vertebrates, from the egg to the period of extra-uterine or extra-ovular existence. Includes principles and processes, germ cell origin and structure, maturation, fertilization, cleavage, cell layers, tissue and organ formation, foetal membranes, and their uses. Prerequisite: Biol. 140 or equivalent. Fee, \$4.00. First semester. Three lectures, four hours of laboratory a week. Credit, 4 hours.

290 *Special Problems*. Open to undergraduates wishing to do work on special problems or techniques in biology. Prerequisites: one year of biological sciences or equivalent, and approval of the instructor under whom the work is to be done. Credit, arranged.

## Chemistry

Chem. 110 *Introduction to Chemistry*. Fundamentals of chemistry and their applications to modern life. For majors of home economics, pre-nursing and similar fields. Fee, \$4.00. Three recitation-lectures and three hours laboratory a week. Credit, 4 hours.

111, 112 *General College Chemistry*. Intensive treatment of the fundamental facts and principles of general chemistry, in connection with the metals, non-metals and their compounds. Qualitative analysis is introduced in the second semester. Primarily for students of science, mathematics, engineering, pre-medicine, and agriculture. Fee, \$4.00 each semester. Three lectures and three hours laboratory a week. Credit, 4 hours each semester.

131 *Qualitative Analysis*. A systematic separation of the most important metals and acids, together with a careful consideration of the theories, principles and laws involved. Prerequisite: Chem. 112, or equivalent. Fee, \$4.00. First semester, two lecture-recitations and six or more hours of laboratory a week. Credit, 4 hours.

142 *Elementary Quantitative Analysis*. Fundamentals of volumetric and gravimetric analysis. Includes practice in the standardization of acids, bases and oxidizers, and analysis of common substances. Careful manipulation of apparatus, integrity, and accuracy are stressed in the laboratory. Prerequisite: Chem. 131 or equivalent. Fee, \$5.00. Second semester, one lecture and nine or more hours of laboratory. Credit, 4 hours.

180 *Elementary Organic Chemistry*. A brief survey of the compounds of carbon, including the representative groups of the aliphatic and aromatic series. Adapted to the needs of students of home economics, agriculture and biology. Prerequisite: Chem. 100 or equivalent. Fee, \$4.00. Second semester, three lectures and three hours of laboratory a week. Credit, 4 hours.

211g, 212g *General Organic Chemistry*. An intensive treatment of the chemistry of organic compounds including the aliphatic and aromatic hydrocarbons and their derivatives. Theories and reactions of organic chemistry. The laboratory work includes the study and preparation of typical carbon compounds. Prerequisite: Chem. 112 or equivalent. Fee, \$5.00. Three lectures and three or more hours of laboratory each week. Credit, 4 hours. Not offered 1945-1946.

280g *Biochemistry*. A study of the chemistry of animal and plant life; the physical and chemical properties of compounds of biological origin; the chemistry of the tissues, secretions, excretions; the composition of foodstuffs, and phenomena of their digestion, absorption, and metabolism; and the role of enzymes in the plant and animal world. Prerequisites: Biol. 120, Chem. 180 or 211. Fee, \$4.00. First semester, three lectures and three hours of laboratory a week. Credit, 4 hours.

285g *Elementary Physical Chemistry*. Includes a brief consideration of the properties of liquids, gases, solids, solutions, equilibrium, phase rule, osmotic pressure, electrochemistry colloids. Prerequisites: Chem. 142, Phys. 112, and Calculus. Fee, \$5.00. Three lectures and three or more hours of laboratory work a week. Credit, 4 hours. Not offered 1945-1946.

## Physics

Phys. 111, 112 *General College Physics*. A detailed lecture and laboratory treatment of general physics covering mechanics, heat, sound, light, electricity, and magnetism. Fee, \$3.00 per semester. Three lecture-recitations and three hours of laboratory a week. Credit 4 hours.

116 *Descriptive Astronomy*. A non-mathematical treatment of general astronomy. Includes a detailed study of the members of the solar system and their characteristics, stars, constellation, nebulae, and the structure of the universe. Three lectures a week. Credit, 3 hours. Not offered 1945-1946.

118 *Meteorology*. Composition and circulation of the atmosphere; hygrometry; weather, methods of observation and prediction; frost warnings; climate in its relations to man and agriculture. Fee, \$1.00. Three times a week. Credit, 3 hours. Not offered 1945-1946.

201 *Mechanics and Heat*. A more advanced presentation of mechanics and heat than is given in general physics. Calculus is used in the development of the subject matter. Prerequisites: Phys. 112,

Calculus. First semester, three lectures a week. Credit, 3 hours. Not offered 1945-1946.

202 *Electricity and Magnetism*. An advanced treatment of the theory of electricity and magnetism. Electrostatics, magnetism, direct and alternating current theory, electromagnetic waves, including radio. Prerequisites: Phys. 112 and Calculus. Second semester, three lectures a week. Credit, 3 hours. Not offered 1945-1946.

## Medical Technology and Health

The following courses are offered at St. Joseph's Hospital in Phoenix and are restricted to seniors following the curriculum in Medical Technology and Health. Hours and fees for the following courses by arrangement with the instructor.

Biol. 225 *Pathogenic Bacteriology*. Disease-producing bacteria studied by special stains, culturing and animal inoculation. Preparation of differential media for bacterial isolation and differentiation. First semester. Credit, 4 hours.

240 *Biological Laboratory Technique*. Routine laboratory procedures. Examinations of stained smears for morphological identification of bacteria, sputum examinations, routine blood counting, blood typing and matching, and urinalysis. First semester. Credit, 4 hours.

250 *Histology*. The study of the structure of tissues and organs and the preparation of stained sections for microscopic examination. Second semester. Credit, 4 hours.

265 *Serology*. Serological and immunological procedures. Special emphasis on complement fixation and precipitation tests for the diagnosis of syphilis. First semester. Credit, 2 hours.

271 *Parasitology*. Parasites of the intestines and blood in their relation to the problem of public health. The recognition of ova, the life cycle of parasites and their mode of transmission. First semester. Credit, 2 hours.

273 *Hematology*. Study of normal and abnormal blood cells. Alteration of the formed elements of the blood are considered in their relationship to different pathological processes. First semester. Credit, 4 hours.

Chem. 282a *Biochemistry*. The chemistry of animal life, the chemical properties of biological compounds, digestion, secretions and body metabolism. Normal values of blood and urine chemical compounds are stressed. Second semester. Credit, 4 hours.

284 *Blood Chemistry.* Examination of the blood for pathological compounds in the blood, abnormal changes in its chemical constituents, and examination for abnormal chemical substances in the blood. Second semester. Credit, 4 hours.

286 *Chemical Examination of the Urine.* Changes in chemical composition of the urine. Abnormal values of the usual constituents are studied in their relationship to disease. Second semester. Credit, 2 hours.

288 *Chemistry of Digestion.* Chemical examinations of the gastric contents, duodenal contents, bile, and feces are made, and the relationship of the findings to abnormal absorption and secretion is studied. Second semester. Credit, 2 hours.

### Individual Problems

Problems of biology, chemistry, geography, and physics, with special emphasis on science teaching. Open to graduate students majoring in science. Time and credit to be arranged. All such courses are numbered 390.

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## Department of Social Studies

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WYLLYS (Head of the Department), VAN PETTEN

Courses in the Social Studies are designed to make one's college education well-rounded, and to produce intelligent, broad-minded and tolerant graduates of this institution. Not all students are preparing to enter the same profession, but nearly all expect to be citizens of the United States. In order to be able citizens, it is desirable to have some knowledge of human and cultural backgrounds and relationships, gained through the study of history, sociology and political science.

### Majors and Minors

*History Major.* Eighteen of the thirty hours required for the major in History should be in lower division courses and taken in the freshman and sophomore years. The student may choose one of the following sequences of courses (in addition to Hist. 110 and 120): S. S. 101, 102, or Hist. 101, 102, or Hist. 103, 104. The remaining lower division work may be chosen from elective courses, such as

Hist. 105, 106, 107, 108, 111, 112, 113, 114, 116, or P. S. 101, 102. Twelve hours of the History major should be in the upper division work, chosen from the following: Hist. 202, 203, 204, 205, 206, 207, 208, 209, 210, S. S. 212, or P. S. 200, 201, 202, 203, 206.

*Political Science Major.* Students majoring in Political Science should select eighteen of the thirty hours of work in lower division courses. It is suggested that the student majoring in Political Science complete a year's sequence in at least one of the following fields: Hist. 101, 102, 103, 104, Econ. 131, 132. The remaining lower division work may consist of the elective courses in P. S. 101, 102. The required twelve hours of upper division work may be chosen from P. S. 200, 201, 202, 203, 206.

*Minors.* A minor in History or Political Science consists of at least fifteen hours, including (for teacher certification), P. S. 200. Nine of these hours should be in lower division work, six in upper division courses, chosen from those listed above or from equivalent work. The actual selection of the courses will depend largely upon the desires and preparation of the student. The major or minor should be planned and worked out under the direction of the departmental staff.

## Suggested Sequence of Courses

*First Year.* First semester: required of all students, Hist. 110 or Ed. 120; electives which may be chosen from Hist. 101, 105, 107, 111, 113. Second semester: required of all students, Hist. 110 or Ed. 120; electives, Hist. 102, 106, 108, 112, 114, 116, P. S. 102.

*Second Year.* First semester: required of all majors, Hist. 120 or Economics; electives, Hist. 101, 103, 105, 107, 111, 113, P. S. 102. Second semester: required of all majors, Hist. 120 or Economics; electives, Hist. 102, 104, 106, 108, 112, 114, 116, S. S. 102, P. S. 102.

*Third Year.* First semester: elective from Hist. 203, 205, 207, 209, 210, or P. S. 201, 203, provided all prerequisites have been completed. Second semester: elective from Hist. 202, 204, 206, 208, 210, or P. S. 204, 206, provided all prerequisites have been completed.

*Fourth Year.* First semester: elective from Hist. 203, 205, 207, 209, 210, or P. S. 200, 201, 203, provided all prerequisites have been completed. Second semester: elective from Hist. 202, 204, 206, 208, 210, S. S. 212, or P. S. 200, 202, 206, provided all prerequisites for these courses have been completed.

## Description of Courses

### General Social Studies

S. S. 101 *Introduction to the Social Studies*. General approach to the subject of Social Studies. Includes introductory material on History, Economics, Sociology, Anthropology, Political Science. First semester, three times a week. Credit, 3 hours. Not offered 1945-1946.

102 *Introduction to the Social Studies*. Continuation of S. S. 101. Second semester, three times a week. Credit, 3 hours. Not offered 1945-1946.

212 *Teaching the Social Studies*. Deals with the methods of teaching history, civics, and other branches of social science. Conducted on the semi-project method, with observation and reports. Open to seniors and graduate students only. Given, if demand is sufficient. Prerequisites: Hist. 101, 102, P. S. 100, and Hist. 103, 104 or S. S. 101, 102. Second semester, twice a week. Credit, 2 hours.

### History

Hist. 101 *Survey of Western Civilization, I*. This course traces the origins of western civilizations, especially in the Near East and the Mediterranean area, and deals also with medieval times. Cultural aspects stressed. First semester, three times a week. Credit, 3 hours.

102 *Survey of Western Civilization, II*. This course, a continuation of Hist. 101, deals with the growth and expansion of western civilization, and with cultural and economic changes to the present day. Second semester, three times a week. Credit, 3 hours.

103 *United States to The Civil War*. American history is surveyed for political, cultural, economic and social developments leading up to the War Between the States and affecting foreign policies. First semester, three times a week. Credit, 3 hours.

104 *United States Since Civil War*. The subject matter of this course is the economic and social revolution in the United States following the Civil War. It deals with the rise of capitalism, the growth of cities, foreign relations and social movements. Second semester, three times a week. Credit, 3 hours.

107 *The Ancient Orient and Greece*. First semester, three times a week. Credit, 3 hours. Not offered 1945-1946.

108 *History Of Rome*. Second semester, three times a week. Credit, 3 hours. Not offered 1945-1946.

110 *The Growth Of American Institutions.* This course is introductory to the subject of American History and is designed to satisfy one-half of the social studies requirements. Each semester, three hours a week. Credit, 3 hours.

111 *The Southwest To 1865.* First semester, three times a week. Credit, 3 hours. Not offered 1945-1946.

112 *The Southwest Since 1865.* Second semester, three times a week. Credit, 3 hours. Not offered 1945-1946.

113 *Medieval Europe.* First semester, three times a week. Credit, 3 hours. Not offered 1945-1946.

114 *Colonization Of North America.* Second semester, three times a week. Credit, 3 hours. Not offered 1945-1946.

116 *Hispanic America.* Second semester, three times a week. Credit, 3 hours. Not offered 1945-1946.

120 *Introduction To World History.* A general approach to the history of civilizations. Designed to satisfy one-half of the social studies requirements. Each semester, three hours a week. Credit, 3 hours.

202g *The Far East.* A study of the early as well as the modern history of China, Central Asia, Japan, Malaysia and India. Prerequisites: Hist. 101, 102, or equivalent. Upper division students only. Second semester, three times a week. Credit, 3 hours. Not offered 1945-1946.

203 *American Foreign Relations.* Deals with the machinery of American diplomacy and the development of American foreign policy. Prerequisites: Hist. 103, 104, or equivalent. Upper division students only. First semester, three times a week. Credit, 3 hours.

204g *The American Frontier.* A course designed to show the effect of the westward movement and the frontier upon American national life. Social and economic factors are stressed. Prerequisites: Hist. 103, 104, or equivalent. Open to upper division students only. Second semester, three times a week. Credit, 3 hours. Not offered 1945-1946.

205g *The French Revolution and Napoleon.* The central theme is the critical period of history, 1789-1815, together with the Old Regime in France and the results of Napoleon Bonaparte's career. Prerequisites: Hist. 101, 102, or equivalent. Open to upper division students only. First semester, three times a week. Credit, 3 hours.

206g *Contemporary Europe*. A brief survey of the First World War followed by international problems and the approach and conduct of the Second World War. Proseminar. Open to upper division students only. Prerequisites: Hist. 101, 102, or equivalent. First semester, three times a week. Credit, 3 hours.

207g *History of Mexico*. An advanced course dealing with the formation of the Mexican people from colonial times to the present. A knowledge of Spanish is desirable but not essential for students taking this course. Open to upper division students only. Prerequisites: Hist. 103, 104, or equivalent. First semester, three times a week. Credit, 3 hours. Not offered 1945-1946.

208g *American Cultural History*. Second semester, three times a week. Credit, 3 hours. Not offered, 1945-1946.

209 *Economic History of the United States*. A survey of the economic development of the American people from 1783 to the present. Proseminar. Prerequisites: Hist. 103, 104, or equivalent. Upper division students only. First semester, three times a week. Credit, 3 hours.

210g *Renaissance and Reformation*. Deals with the antecedents and development of the Renaissance in Italy, its spread into the rest of Europe, and the resultant revolution in religious and political thought. Open to upper division students only. Prerequisites: Hist. 108, 113, or equivalent. Second semester, three times a week. Credit, 3 hours.

300 *Seminar in History*. Assignments and reports in individual research work, covering any field of history. Offered if demand is sufficient. Hours to be arranged. Credit, 2 hours.

301 *Contemporary United States*. Studies in American political, social and economic history since 1900. The problem or project approach may be used in the conduct of this course, if desirable. Offered if demand is sufficient. First semester, hours to be arranged. Credit, 3 hours.

302 *Historiography and Historical Philosophy*. Studies in historical method and in the literature and theories of history. Offered if demand is sufficient. Second semester, hours to be arranged. Credit, 3 hours.

## Political Science

P. S. 102 *State and Local Government*. The workings of the typical American State government, and its principles of administration,

together with some consideration of county and local government. First semester, three times a week. Credit, 3 hours.

104 *American Political Parties*. A survey of the formation and history of the leading political parties, and the principles of famous party leaders. Second semester, three times a week. Credit, 3 hours.

200 *Constitutional Government*. This course meets the requirements of the Arizona State Law regarding teachers' qualifications, and is required of all students for certification. Fourth year, second semester, three times a week. Credit, 3 hours.

201 *Comparative National Governments*. This course deals with the background of present-day leading and typical governments throughout the world, with some consideration of the principles underlying each of them. Open to upper division students only. Prerequisites: P. S. 200, Hist. 101, 102, or equivalent. First semester, three times a week. Credit, 3 hours.

203 *Public Administration*. First semester, three times a week. Credit, 3 hours. Not offered in 1945-1946.

204 *International Law and Relations*. The principles and practices of national governments under the laws and customs of war and peace. Open to upper division students only. Prerequisite: P. S. 200. Second semester, three times a week. Credit, 3 hours.

206g *Contemporary Political Thought*. A critical survey of political ideas and philosophy from the French Revolution to the present. Prerequisite: P. S. 200. Open to upper division students only. Second semester, three times a week. Credit, 3 hours. Not offered in 1945-1946.

300 *Seminar In Political Science*. Offered if the demand is sufficient. Either semester, hours to be arranged. Credit, 2 hours.

### Individual Problems

Problems may be worked out in history, political science, teaching methods, or sociology. All such courses are numbered 390.

# Statistics

## Summary of Registration, 1943-1944

### COLLEGE

#### *Resident Students—Regular Session*

	Freshmen	Sophomore	Junior	Senior	Graduate	Unclass.	Total
Men	39	13	16	7	24	1	100
Women	198	75	96	56	40	2	467
	<u>237</u>	<u>88</u>	<u>112</u>	<u>63</u>	<u>64</u>	<u>3</u>	<u>567</u>

#### *Summer Session 1943*

Men	66
Women	279
Total	<u>345</u>

#### *Extension Courses and Correspondence*

Men	110
Women	235
Total	<u>345</u>

#### *Total Registration*

<i>In College</i>	
Men	276
Women	981
Total	<u>1257</u>

#### *Counted More Than Once*

Men	22
Women	125
Total	<u>147</u>

#### *Net Enrollment—Total Different Students*

Men	254
Women	856
Total	<u>1110</u>

### TRAINING SCHOOLS

Boys	445
Girls	510
Total	<u>955</u>
GRAND TOTAL	<u>2065</u>

## Summary of Graduates, 1943-1944

Through August, 1943 .....				5898
<b>B. A. Degrees—</b>	<b>Men</b>	<b>Women</b>	<b>Total</b>	
January 21, 1944 .....	0	14	14	
May 17, 1944 .....	4	44	48	
August 31, 1944 .....	5	26	31	
<b>M. A. Degrees—</b>				
May 17, 1944 .....	2	12	14	
Total .....				197
Through August, 1944 .....				6005

### Bachelor of Arts In Education

January 21, 1944

Ernestine May Barney	Alma Ruth Miller
*Leona C. Burgess	Mary Lou Schlesinger
Mary Lea Cole Joplin	*Mildred Eveline Simpson
Vivian Pauline Hart	Crystal Irene Townsend
Evelyn Helen Henry	Georgina Wight Willis
*Bernice Mildred Holdeman	Elsie Louise Woodard
Bonnie Gene McDowell Horne	*Deicina Sophie Wright

### Bachelor of Arts In Education

May 17, 1944

Marigold Lynette Akin	Clara E. Lund
Freda Fay Alexander	Helen McElroy
*Frances Giroux Benedict	Aleene Neely
Helen Gertrude Bennett	Bernyce Pyland Nichols
Beth Butler Calhoun	Lela May Oliver
Jean C. Curry	Rose Ong
Patsy Jeanette Daniels	Pauline Phelan
Mary Daou	*Alberto Ramirez
Wilma Dean	*Oakley Ray
Jeannette Ummel Dyrud	Elizabeth Ann Reynolds
Donald Lee Ellis	Olive Nina Riddle
Dorothy Jeanne Evans	Barbara Jane Shea
Pauline E. Fees	Genevieve Smith
Dorothy Nell Gaither	Lois Virginia Smith
Adelaide M. Giacoma	Malva Laureth Smith
Betty R. Gregg	Nina Lou Survant
*Juanita Ground	Clara Porter Townsend
Doris Jeanne Holbert	William Warren
Mary Evelyn Howard	Olive Marie Wheeler
Margaret Irene Jackman	Vivian Ruth White
Marietta Johnson	Mildred Mae Wichens
Sarah Kearns	Freda L. Wilson
Mary Jean Kennedy	Marjorie Ann Wyman
Mary Elaine Kechen	Harriet Moss Zenor

## Bachelor of Arts In Education

### August 31, 1944

Ellis D. Biggs  
 Iva Wantland Boerger  
 Mary G. Brandenburg  
 Gladys Lockwood Brown  
 Clara Bryant  
 Betty Jane Conniff  
 Edith Clanton Crowe  
 Laura Mildred Donham  
 Marlon E. Ewan  
 Virginia Lillian Fogarty  
 Frank Groseta  
 Ruth Hartsook  
 Evelyn Smith Henderson  
 Audrey E. Hume  
 Glenna Jones

Vera Martin Logan  
 Catherine A. Martin  
 Zenobia Traylor Meyer  
 Dan Louise Miller  
 Ruth Bowen Morris  
 Aileen G. Neeley  
 Katherine Geraldine Nelson  
 \*Edith Curnow Ollson  
 George W. Pettis  
 Meryl Reber  
 Walter Relfe  
 Charlotte Roach  
 \*Ethel Stabler  
 Gladys Sweeney  
 Mary Louise Wilde

Clarice Hope Worthen

## Master of Arts In Education

### May 17, 1944

Gladys Ralston Anderson  
 Marion Lester Brooks  
 Marjorie Josephine Brown  
 Ada Frances Case  
 Juanita G. Favors  
 Geraldine Ellis Groover  
 Maxine Wakefield Hagan

Caroline Contreras Kirkpatrick  
 Ruth E. Neer  
 Myrna Rea  
 Myrtle M. Rodgers  
 Willimina Snyder Schultz  
 Ruth Elizabeth Staley  
 Hsien-Lin Tseng

\*Absentia

## Senior Honors

1944

## With High Distinction

Bernice Mildred Holdeman	Olive Marie Wheeler
Marietta Johnson	Clarice Hope Worthen
Olive Nina Riddle	

## With Distinction

Edith Clanton Crowe	Aleene Neely
Laura Mildred Donham	Edith Curnow Ollson
Jeanette Ummel Dyrud	Rose Ong
Donald Lee Ellis	Walter Relfe
Juanita Ground	Lois Virginia Smith
Mary Evelyn Howard	Gladys Sweeney
Catherine A. Martin	Freda L. Wilson

## Awards To Graduates

1943-1944

Alumni Scholarships.....	Freda Alexander Olive Nina Riddle
Accounting Award.....	Oakley Ray*
Dunbar Club.....	Helen McElroy Crystal Townsend
Gibbons Award.....	Jeannette Ummel Dyrud
Home Economics and Beta Chi.....	Freda Alexander Aleene Neely
Kappa Delta Pi Pin .....	Olive Riddle
Kellogg Award for Medical Technology.....	Malva Smith
Moeur Medal.....	Bernice Holdeman Pomeroy
Moeur Pin.....	Olive Riddle
Mu Rho Alpha.....	Meryl Reber
Pi Omega Pi.....	Marietta Johnson
Theta Chi Epsilon.....	Elsie Woodard
West Hall.....	Nina Survant

\*Absentia

# Gifts and Bequests

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Public-spirited individuals in increasing numbers are making gifts of money or are bequeathing part or all of their estates to the educational institutions of their choice.

Arizona State College at Tempe is a growing, progressive institution, and the State of Arizona has not been able to care for some of its special needs. Individuals with money can make their influence felt with present and future generations of young people by making gifts or bequests to the College.

Some donors name the fund given for themselves, or for a wife, son, or daughter. An investment in growing personality is a long-time investment. Moreover, it pays large dividends, and these dividends continue long after the investor is gone.

The needs are many and urgent. The student loan fund is far too small. The College should have many more scholarships for worthy students. Endowments for special types of work are needed. Money is needed for the endowment of a Student Center building. The students, themselves, have already started a fund for this purpose. There are many other needs.

It is suggested that those desiring to make such a gift or bequest go to an attorney and make out a form such as is given below.

I give, devise, and bequeath to the Board of Regents of Arizona State College at Tempe, Arizona, the sum of.....

.....  
dollars. This is to be known as the.....

.....  
Fund, and is to be used as indicated below:.....

.....  
.....  
.....  
.....

# For Information

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## CONCERNING

Catalogs  
General Information  
Admission  
Transcripts  
Evaluation of Records  
Instruction and Curriculum

} Write.....OFFICE OF REGISTRAR

Student Progress  
The Summer Session  
Extension Classes  
Correspondence Courses

} Write.....DEAN OF THE COLLEGE

Questions Involving Women Students  
Dormitory Residence  
Employment of Students

} Write.....DEAN OF WOMEN

Room Reservation Deposit  
All Other Financial Matters

} Write.....BUSINESS OFFICE

Teacher Placement

Write..THE PLACEMENT BUREAU

Educational Policies  
Administrative Questions

} Write.....THE PRESIDENT

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ARIZONA STATE COLLEGE AT TEMPE

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# Request For Information

*Detach this sheet, fill out the blanks and mail to:*

THE REGISTRAR  
ARIZONA STATE COLLEGE, TEMPE, ARIZONA

Please send me the printed materials and information indicated below. Annual catalog....., Summer session bulletin....., A copy of the student pictorial bulletin, Life....., Send any other printed material available.....

Please give me the following information:.....

.....  
.....  
.....

If you are planning to enter Arizona State College, please answer these questions:

Graduate of what high school?..... Date.....

What colleges have you attended?.....

Approximate number of semester hours earned?.....

What curriculum are you now planning to take?.....

When do you plan to enter?.....

Have you sent your room and breakage deposit of \$5.00?.....

Name.....

Street Address.....

City..... State.....



Dormitory and Campus . . . A pleasant environment for work and recreation







*Arizona State College*

1945-46  
TEMPE  
ARIZONA