Bulletin
San Diego State College and
Announcement of Courses
1936-1937

June, 1936
SAN DIEGO STATE COLLEGE
Administered Through
STATE DIRECTOR OF EDUCATION

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SAM H. COHN..................................................Deputy Director of Education
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GEORGIA C. AMSDEN.........................................Faculty Secretary

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SAN DIEGO, CALIFORNIA

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CALENDAR 1936-1937

SUMMER SESSION, 1936.
Term I, six weeks, June 22-July 31.
Term II, three weeks, August 3-August 22.

FALL SEMESTER, 1936-1937.
September 10, 8:30 a.m., Examination in Subject A (English Composition).
11:00 a.m., Assembly of New Students (Attendance Required).

September 11, 8:30 a.m., Fundamentals Test.
1:00 p.m., College Aptitude Test.

September 14, 8:00-12:00 a.m., and 1:00-2:00 p.m. Registration of Old Students (including Payment of Fees by Students Who Preregistered).

September 15, 8:00-12:00 a.m., and 1:00-2:00 p.m., Registration of Entering Freshmen, New Students with Advanced Standing, and Returning Students.

September 16, Class Work Begins. Late registration fee becomes effective.

November 11, Armistice Day Holiday.

November 26-29, Thanksgiving Recess.

December 19, Christmas Recess Begins.

January 4, Class Work Resumes.

January 28-February 4, Mid-Year Examinations.

SPRING SEMESTER, 1937.
February 8, 8:30 a.m., Examination in Subject A (English Composition).
11:00 a.m., Assembly of New Students (Attendance Required).

February 9, 8:30 a.m., College Aptitude Test.
1:00 p.m., Fundamentals Test.

February 9, 8:00-12:00 a.m., and 1:00-2:00 p.m. Registration of Old Students.

February 10, 8:00-12:00 a.m., and 1:00-2:00 p.m. Registration of Old Students.

February 10, 1:00-3:00 p.m., Registration of Entering Freshmen, New Students with Advanced Standing, and Returning Students.

February 11, Class Work Begins. Late registration fee becomes effective.

March 20-28, Easter Recess.

April 25, Open House.

May 1, Founders' Day.

May 31, Memorial Day Holiday.

June 10-17, Final Examinations.

June 18, Annual Commencement Exercises.

SUMMER SESSION, 1937.
June 28-August 6.
FACULTY

For the Year 1935-1936

WALTER R. HEPNER, A.M.—President.
A.B., A.M., University of Southern California.
Graduate student, University of Chicago and University of California.
Instructor, La Verne College; High School Teacher: Chicago, Illinois; Long Beach and Oxnard, California. Vice-Principal; Principal, Fresno High School; Assistant Superintendent; Superintendent of Schools, Fresno; Superintendent of Schools, San Diego. Summer Session and extension instruction: State Colleges of Fresno, San Jose, and San Diego; Claremont Colleges; Stanford University; University of California at Los Angeles. Chief, Division of Secondary Education, California State Department of Education. (Appointed September, 1935.)

IRVING E. OUTCALT, M.A.—Vice President and Professor of English.
A.B., M.A., Stanford University.
Student, University of Illinois; graduate study and research work, Stanford University. Travel in Europe. Head of Department of English, San Diego High School. (Appointed September, 1912)

J. W. AULT, M.A.—Dean and Professor of Education.
B.S., Valparaiso University; M.A., University of South Dakota.
Student, Miami University; graduate student, University of Iowa and University of Southern California. Superintendent of city schools; conductor and instructor in teachers institutes; Professor of Education at Southern State Teachers College, Springfield, South Dakota. (Appointed September, 1925.)

ARTHUR G. PETERTSON, M.A.—Dean of Liberal Arts, ex officio in general charge of Lower Division studies, and Professor of Economics.
A.B., College of Pacific; M.A., Stanford University.
Graduate student, University of Southern California. Vice Principal of San Diego High School and Director of Junior College. (Appointed September, 1921.)

CHARLES E. PETERTSON, A.B.—Dean of Men and Associate Professor of Physical Education and Director of Physical Education for Men.
A.B., San Diego State College.
Student, Oregon Agricultural College and University of California. Graduate student, Claremont Colleges. Director of Playgrounds, Portland, Oregon; Director of Physical Education, Y. M. C. A.; Physical Education and Recreation work in the United States Army Camps; Director of Physical Education in Junior High School, Berkeley, California. (Appointed July, 1921.)

MARY IRWIN McMULLEN, A.B.—Dean of Women and Placement Secretary and Associate Professor of Educational Guidance.
A.B., San Diego State College.
Graduate student, University of Chicago, and Stanford University. Public school teacher, Oakland, California.
JOHN R. ADAMS, M.A.—Associate Professor of English.
A.B., M.A., University of Michigan.
Graduate student, University of Southern California.
Instructor in Rhetoric, University of Michigan; Associate in English, University of Washington. (Appointed September, 1925.)

GEORGIA C. AMSDEN—Associate Professor of Commerce.
Gregg School, Chicago; special secretarial training in various institutions; University of California summer session and extension division work.
Teacher in University of California summer school; Traveling Representative and Secretary for the Federal Board for Vocational Education, Enemy, War of War; in charge of Stereographic Division, Department of Personnel, American Red Cross Headquarters, Paris, World War; Secretary, Standard Life and Accident Insurance Company, Detroit, Michigan; Assistant Editor and Reporter, Daily Press, Ypsilanti, Michigan; Instructor, San Diego High School. (Appointed September, 1925.)

GUINIVERE KOTTER BACON, M.A.—Training Supervisor and Associate Professor of Education.
B.S., Utah Agricultural College; M.A., Stanford University.
Graduate student, Stanford University; University of California; Teachers College, Columbia University.
Teacher in Public Schools; Primary Supervisor. (Appointed July, 1928.)

O. W. BAIRD, M.A.—Professor of Physics.
A.B., University of Wisconsin; M.A., University of California.
Graduate student, University of Minnesota.
Head of Science Department, University of Wisconsin High School and Stadium High School, Tacoma, Washington; Assistant in Physics Department, University of Washington, Seattle. (Appointed September, 1921.)

FRED REIDLEMAN, B.Mus.—Associate Professor of Music.
B.S., B.Mus., Columbia University.
National Music Camp, Interlochen, Michigan, 1933.
Teacher of Music, Boys High School, Brooklyn, N. Y.; Instructor, Columbia University; Head of Violin Department, University of Illinois; Professor of Music and Director of the Conservatory, College of Puget Sound, Tacoma, Washington. (Appointed September, 1927.)

GERTRUDE SUMPTION BELL, M.A.—Professor of Psychology.
A.B., Indiana University; M.A., Stanford University.
Graduate, Indiana State Normal School; Research Work, Clark University. Travel in Europe.
Assistant in Education and Director of Practice Teaching, University of Colorado; State Institute Lecturer, Montana; Instructor, School of Education, Indiana University. (Appointed August, 1916.)

MARJORIE KELLY BORSUM, M.A.—Assistant Professor of Art.
B.E., University of California at Los Angeles; M.A., University of Southern California.
Pupil in Paris of Andre Lhote, Painter, and of Mme. Alexandra; Instructor in Fine Art, Pasadena Junior High School. (Appointed September, 1927.)

BAYLOR BROOKS, B.A.—Assistant Professor of Geology.
B.A., Stanford University.
Graduate student, University of Arizona; Harvard University; Oxford University; Stanford University. Travel in Europe.
Member of staff, Yosemite Field School of Natural History; Summer Lecturer, National Park Service, Yellowstone and Yosemite. (Appointed September, 1931.)

ELIZABETH MCPIKE BROWN, Ph.D.—Assistant Professor of French.
Ph.B., M.A., Ph.D., University of Chicago.
Diplôme de Phénomique, Ecole des Hautes Études, Paris, France; Certificate d’ Études Françaises, University of Paris.
Assistant in French, University of Chicago; Head of French Department, Rockford College, Rockford, Illinois; Instructor in University of California, Extension Division, San Diego.

LESLEY P. BROWN, Ph.D.—Professor of French and Spanish.
A.B., Yale University; M.A., Harvard University; Ph.D., University of Southern California.
Instructor in French and Spanish, Northwestern University; Harvard University; University of North Carolina; University of Chicago. (Appointed July, 1922.)

LEO BLAKELEY CALLAND, M.S.—Assistant Professor of Physical Education.
A.B., University of Southern California; M.S., University of Idaho.
Graduate student, University of Southern California.
Director of Athletics, Page Military Academy, Los Angeles; Freshman Coach, University of Southern California; Director of Athletics and Physical Education, Football and Basketball Coach, Whittier College; Director of Intramural Athletics, Freshman Football and Varsity Basketball Coach, University of Southern California; Director of Physical Education and Head Football Coach, University of Idaho. (Appointed September, 1925.)

ROY E. CAMERON, PH.D.—Professor of Economics.
A.B., Ph.D., University of California.
Student, Creighton University; Professor of Economics, University of Omaha; Teaching Fellow in Economics, University of California. (Appointed September, 1929.)

VINNIE B. CLARK, A.B.—Associate Professor of Geography.
A.B., University of Wisconsin.
Graduate student, University of Chicago; University of Mexico.
Travel in Mexico and Europe.
Assistant in Geography, University of Wisconsin; Teacher, Oak Park High School, Illinois; Instructor in summer session, University of California at Los Angeles. (Appointed September, 1914.)

KATHERINE E. CORBETT, A.M.—Training Supervisor and Associate Professor of Education.
Graduate, Public School Music Course, Ypsilanti Conservatory of Music.
Teacher in Public Schools, Ypsilanti, Michigan; Training Supervisor, Kent State Normal College, Ohio; Evening High School, San Diego. (Appointed July, 1921.)

JAMES ENSIGN COUCH, M.S.—Assistant Professor of Biology.
B.S., M.S., Cornell University.
Assistant in Ornithology, Cornell University. (Appointed September, 1932.)
ERBY CHESTER DEPUTY, Ph.D.—Associate Professor of Education and Principal of the Training School.
A.B., University of Denver; A.M., Ph.D., Columbia University.
Graduate student, University of Southern California.
Teacher in rural schools and principal of high schools, Indiana.
Assistant Professor, University of Arkansas and Kansas State Teachers College.
(Appointed September, 1931.)

FLORENCE L. SMITH DICKHAUT, M.A.—Professor of English.
A.B., Northwestern University; M.A., University of Chicago.
Graduate student, Medill School of Journalism, Chicago.
Instructor, State Normal School, Oshkosh, Wisconsin.
(Appointed July, 1917.)

JOHN MORTIMER GLEASON, M.A.—Assistant Professor of Mathematics.
A.B., M.A., University of California.
Student, Hope College, University of Michigan, and University of Southern California.
Teaching Fellow in Mathematics, University of California.
(Appointed September, 1936.)

MORRIS HUBBARD GROSS, A.B.—Director of Athletics and Associate Professor of Physical Education.
A.B., San Diego State College.
Graduate student, University of Southern California.
Teacher, Chula Vista Grammar School; Basketball Coach, U. S. Marines and U. S. Naval Hospital.
(Appointed September, 1929.)

ILSE HAMANN, B.A.—Instructor in Art.
B.A., University of California at Los Angeles.
Student, Radcliffe School; graduate student, Teachers College, Columbia University; pupil of Douglas Donalson.
Teacher, San Bernardino City Schools; Instructor, Northwestern University, Evanston, Illinois; Instructor, Santa Ana Junior College.
(Appointed February, 1944.)

EDITH C. HAMMACK, B.A.—Training Supervisor and Associate Professor of Education.
B.A., San Jose State College.
Graduate, State Normal School of San Diego; graduate student, University of California.
Public school teacher.
(Appointed February, 1911.)

DOROTHY R. HARVEY, M.A.—Assistant Professor of Botany.
A.B., San Diego State College; M.A., University of Southern California.
Graduate student, Scripps Institute for Biological Research, La Jolla; University of California; University of Chicago.
Public school teacher.
(Appointed September, 1924.)

ROBERT D. HARWOOD, Ph.D.—Professor of Zoology.
B.A., Pomona College; Ph.D., Cornell University.
Assistant in Biology, Cornell University; Field Ectomologist, Natural Survey of Illinois; Teacher, Kern County Union High School and Junior College, Bakersfield; Assistant in Entomology, Cornell University; Stream Survey, Conservation Department, New York.
(Appointed September, 1928.)

EVERETT GEE JACKSON, A.B.—Associate Professor of Art.
A.B., San Diego State College.
Student, Agricultural and Mechanical College of Texas; Art Institute of Chicago. Graduate student, University of Southern California.
Associate Professor, Sul Ross Teachers College, Alpine, Texas: three years of travel and art study in Mexico; painter.
(Appointed November, 1936.)

MARQUERITE VEASEY JOHNSON, A.M.—Registrar and Associate Professor of Latin.
A.B., Radcliffe College; A.M., Columbia University.
Teacher of Latin, History and French; Assistant in the Registrar's Office, Teachers College, Columbia University.
(Appointed July, 1927.)

MYRTLE ELIZABETH JOHNSON, Ph.D.—Professor of Zoology.
B.S., M.S., Ph.D., University of California.
Research Assistant, Scripps Institute for Biological Research, La Jolla; Instructor, Pasadena High School.
(Appointed September, 1921.)

SYBD ELIZABETH JONES, M.L.—Assistant Professor of English.
B.L., M.L., University of California.
Director, Junior Players of Pasadena Community Playhouse; Drama Instructor in Chouinard Art School, Los Angeles; Organizing Secretary and Instructor in Playwriting of Summer Art Colony at Pasadena Community Playhouse; Drama Organizer and Director of San Diego Community Service.
(Appointed September, 1925.)

JOSEPH SUMNER KEENEY, Ph.D.—Instructor in English.
A.B., Yale University; Ph.D., University of California.
Instructor in English, Yale in China, Chiangsha, China; Instructor, San Diego Army and Navy Academy; Instructor in English, University of California.
(Appointed February, 1933.)

GENEVIEVE KELLY, A.M.—Instructor in Sociology.
A.B., University of California; A.M., Columbia University.
Student, Los Angeles Public Library School. Graduate student, University of Chicago. Travel in Europe.
(Appointed September, 1924.)

CHARLES B. LEONARD, Ph.D.—Professor of History.
A.B., M.A., Ph.D., University of California.
Instructor in History, Lowell High School, San Francisco; Teaching Fellow in History, University of California.
(Appointed September, 1921.)

LEWIS B. LESLEY, Ph.D.—Professor of History.
A.B., Stanford University; M.A., Ph.D., University of California.
Native Sons' Traveling Fellow in Europe from University of California.
Instructor, Principia School, St. Louis, Missouri; Teaching Fellow in History, University of California; Assistant Professor of American History, Pomona College; Summer session staff, Claremont Colleges. Member, University of California Lecture Bureau.
(Appointed September, 1924.)

GEORGE R. LIVINGSTON, M.A.—Associate Professor of Mathematics.
B.S., M.A., University of California.
Graduate student, University of California at Berkeley and Los Angeles; University of Southern California.
Instructor, San Diego High School and Junior College; Head of Department of Mathematics, Santa Barbara High School and Junior College.
(Appointed September, 1921.)

ELMER ALLEN MESSNER, M.A.—Assistant Professor of Chemistry.
A.B., M.A., Stanford University.
Student, Marquette University, Milwaukee, Wisconsin; San Diego State College, Registered Assistant Pharmacist, State of Wisconsin; Licentiate in Pharmacy, State of California. Graduate student, University of Breslau, Germany. (Appointed September, 1931.)

CHESNEY RUDOLPH MOE, M.A.—Assistant Professor of Physics.
A.B., M.A., Stanford University. Student, San Diego State College. Graduate student, University of Southern California. (Appointed September, 1931.)

ABRAHAM P. NASATIR, Ph.D.—Professor of History.
A.B., M.A., Ph.D., University of California; Native Sons' Traveling Fellow in History in Europe. Assistant Teaching Fellow in History, University of California; Instructor in History, University of Iowa. Social Science Research Council Fellow, 1928-1931. (Appointed January, 1928.)

WILLIAM L. NIDA, M.A.—Professor of Education, Supervisor of Public School Practice Teaching.
Ph.B., Ohio State University; M.A., University of Southern California. Graduate student, University of Chicago. Principal of Ohio High Schools; Superintendent of Schools in Illinois; Supervisor, Junior High School, San Diego. (Appointed July, 1921.)

LENA PATTERSON, M.A.—Associate Professor of Art.
A.B., B.S., Ohio University; M.A., Columbia University. Student, Cincinnati Art Academy; Chicago Art Institute; Oils Art Institute; Rudolph Schaeffer School; International School of Art; Roseanna School and Itten School, Berlin, Germany; Zwettsbruck School, Vienna, Austria. Assistant, Ohio University; Professor, State Teachers College, Kirksville, Missouri; Assistant Scholar, Art Department, Columbia University; Instructor, Chouinard School of Art, Los Angeles. (Appointed July, 1932.)

RAYMOND CARVER PERRY, Ed.D.—Assistant Professor of Education.
A.B., Stanford University; M.A., Ed.D., University of Southern California. Student, California Institute of Technology. Graduate student, George Washington University; Public school teacher in Texas and California; Instructor, Long Beach Junior College; University of Southern California. (Appointed September, 1932.)

PAUL LEWIS PFAFF, B.A.—Instructor in English.
B.A., Stanford University. Student, San Diego State College. Graduate student, Claremont Colleges; University of Southern California. (Appointed September, 1931.)

WALTER T. PHILLIPS, M.A.—Associate Professor of Spanish and French.
A.B., University of Washington; M.A., Stanford University. Graduate student, National University of Mexico; Institute of French Education, Pennsylvania State College. Teaching Assistant in Spanish, Stanford University; Assistant Professor of Modern Languages, Willamette University; Instructor in Spanish, Brown University. (Appointed September, 1927.)

MABEL M. RICHARDS, A.M.—Training Supervisor and Associate Professor of Education.
B.S., A.M., University of Missouri.

Graduate student, University of Southern California.
Rural, City and High School Teacher; City Superintendent of Schools; Supervisor of Mathematics, Training School, State Teachers College, Warrensburg, Missouri; Director in Demonstration School, Northeast Missouri State Teachers College. (Appointed September, 1921.)

DONALD JAMES ROBERTSON, A.B.—Instructor in Commerce.
A.B., San Diego State College. Graduate student, University of Southern California. (Appointed September, 1934.)

DUDLEY H. ROBINSON, M.S.—Associate Professor of Chemistry.
B.Sc. in Sugar Engineering, University of Louisiana; M.S., University of Iowa. Chemist, University of Louisiana Sugar House, Raceland Sugar Factory; State Sugar House, Louisiana; Research Chemist, Thorneley and Company; Chief Chemist, Pacific Marine Chemicals, Inc. (Appointed September, 1928.)

SPENCER L. ROGERS, A.M.—Assistant Professor of Anthropology.
A.B., San Diego State College; A.M., Claremont Colleges. Student in Archaeology, School of American Research, Santa Fe, New Mexico. Graduate student, University of Southern California. Curator in Anthropology, San Diego Museum; honorary curator in prehistory, San Diego Museum. (Appointed September, 1939.)

MARIAN LYON SCHWOB, M.S.—Associate Professor of Physical Education and Acting Director of Physical Education for Women.
B.A., University of Iowa; M.S., University of Southern California. Graduate, Department of Hygiene and Physical Education, Wellesley College. Student, Denishawn School of Dancing. Director of Department of Physical Education for Women, University of Iowa. (Appointed September, 1934.)

FLORENCE I. SHAFER, A.B.—Instructor in Physical Education.
A.B., University of California. Graduate student, University of California; University of Southern California. Instructor in Physical Education, Y. W. C. A., Denver, San Francisco, San Diego; Instructor in Physical Education, Suzzalo Session, University of California. (Appointed September, 1933.)

W. T. SKILLING, M.S.—Professor of Astronomy.
B.S., M.S., University of California. Student, State Normal School, Los Angeles; Stanford University. Teacher, Los Angeles County and City public schools; Assistant in Physics, University of California. (Appointed September, 1901.)

CHARLES ROBERTS SMITH, A.B.—Instructor in Physical Education.

L. DEBORAH SMITH, A.M.—Associate Professor of Music.
Mus.B., A.B., Oberlin College; A.M., Columbia University. Graduate student, Stanford University; University of Southern California. Head of Department of Music, State Teachers College, Winona, Minnesota. (Appointed September, 1922.)
MARIAN DEEK SMOOR, A.M.—Training Supervisor and Associate Professor of Education.
A.B., A.M., Stanford University. Travel in Europe.
Teacher in Public Schools; Assistant in History, Stanford University; Dean of Women, State Normal School, Cheney, Washington; Instructor, Francis W. Parker School, San Diego, California.
(Appointed September, 1925.)

CHRISTINE SPRINGSTON, B.M.—Associate Professor of Music.
B.A., B.M., University of Redlands.
Graduate student, University of Redlands, University of Southern California and University of Washington; Piano study with Arnold Guerne, Olga Steeb, Charles Marsh, Isidore Philipp; harmony with Nadia Boulanger. Diploma in execution, Conservatoire Americain, Fontainebleau, France.
Supervisor of Music, Needles, California; Assistant Professor of Piano, Organ and Theory, University of Redlands; Instructor, San Diego High School.
(Appointed September, 1936.)

HARRY H. STEINMETZ, A.M.—Associate Professor of Psychology and Philosophy.
A.B., University of California; A.M., University of Southern California.
Assistant in Journalism, University of the Philippines, Manila; Assistant in Educational Psychology, University of California; Instructor, Glendale Union High School and San Mateo Junior College.
(Appointed September, 1936.)

JOHN PAUL STONE, M.S.—Head Librarian and Associate Professor of Library Instruction.
B.S., Northwest Missouri State Teachers College; M.S., University of Illinois Library School.
Instructor in English and Public Speaking, Senior High School, Joplin, Missouri; Library work, Univeristy of Illinois Library; Professor of Library Science, Louisiana State Teachers College.
(Appointed September, 1936.)

ALVENA SULL STORM, M.A.—Associate Professor of Geography.
A.B., M.A., University of California.
Teaching Fellow, University of California; teacher in public schools; Instructor, San Francisco State College.
(Appointed September, 1926.)

MABEL COY TRAIL, M.A.—Instructor in English.
B.A., Parsons College; M.A., State University of Iowa.
Graduate student, University of Southern California.
Editorial assistant, Philological Quarterly; national editor for Sigma Tau Delta, honorary English fraternity. Instructor in English, high schools, Dubuque, Iowa, and Long Beach, California; Instructor, Summer Session, University of Dubuque; Instructor, English and Journalism, Long Beach Junior College.
(Appointed February, 1935.)

FRANKLIN D. WALKER, Ph.D.—Professor of English.
B.A., (Hons., Oxon.), University of Oxford; Ph.D., University of California.
Student, University of Arizona; Holder of Arizona Rhodes Scholarship to Oxford.
Instructor in Dramatics, Francis W. Parker School, San Diego, California.
(Appointed September, 1926.)

HILDE MARIE KRAMER WALKER, M.A.—Instructor in German.
A.B., M.A., Northwestern University.
Graduate student, University of Chicago.
Teacher in high schools of Illinois; Assistant, Northwestern University.
(Announced September, 1921.)

CURTIS REYNOLDS WALLING, E.E.—Assistant Professor of Mathematics and Industrial Arts.
A.B., E.E., Stanford University.
Student, Fresno State College; graduate student, Stanford University.
Graduate student training course, Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pennsylvania.
(Appointed September, 1931.)

DOROTHY E. WRIGHT, R.N., M.A.—Assistant Professor of Health and Hygiene.
A.B., Oberlin College; M.A., Teachers College, Columbia University.
Graduate, Washington University Training School for Nurses, St. Louis, Missouri, Public health nurse, California. Student, St. Louis School of Social Economy.
(Appointed September, 1935.)

W. H. WRIGHT, M.A.—Associate Professor of Commerce.
B.S., M.A., University of California.
Head of Department of Commerce, Visalia Union High School, Visalia, California.
(Appointed September, 1921.)
ASSOCIATE MEMBERS OF THE FACULTY

FLOYD ADAMS—Instructor in Industrial Education.
Student, United States Naval Aviation School, Great Lakes, Illinois.
Varied experience as technician and mechanic in aeronautics.
Instructor in aeronautics, Pacific Scientific Company, Los Angeles;
Western College of Aeronautics and Curtiss-Wright Flying Service;
Ryan Aeronautical Corporation, San Diego, United States Naval
Aviation.

DEAN BLAKE—Instructor in Meteorology.
Meteorologist, United States Weather Bureau; San Diego.

MARIAN EVANS, B.S.—Instructor in Education.
B.S., New York University.
Graduate, State Normal School, Los Angeles; Student, University
of California, University of New Mexico, San Diego State College.
Teacher, San Bernardino, Sierra Madre, San Marino; Director of
Visual Education Activities, San Diego City Schools.

M.E. in E.E., Ohio State University.
Student, San Diego State College.
Varied public school experience. Head of Department of Physics
and Electrical Engineering, University of Notre Dame; Professor of
Mechanical and Electrical Engineering, University of Southern Cali-
fornia.

DONAL HORD—Instructor in Art.
Student, Santa Barbara School of Fine Arts. Gould scholarship
student, Escuela de Bellas Artes, Mexico, D. F.; Pennsylvania Acad-
emy of Fine Arts.
Instructor, Santa Barbara School of Fine Arts. Sculptor.

EDWIN ATHELSTAN ROSS, A.B.—Assistant Professor of Industrial Edu-
cation.
P.d., Colorado State Teachers College; A.B., University of Southern
California.
Graduate, Bradley Polytechnic Institute, Peoria, Illinois. Graduate
student, Universities of Illinois and California, Columbia University,
California and Massachusetts Institutes of Technology.
Varied experience in public schools as teacher, supervisor, and
administrator. Instructor, Boeing School of Aeronautics, Oakland, Cali-
fornia; Vocational Director and Aeronautics Instructor, High School
and Junior College, Taft, California; Technical Instructor and student
aviator, California Flying School. Office in United States Naval
Aviation; Research Aeronautical Engineer, Government Laboratories,
Langley Field, Virginia.

WILL J. STANTON, LL.B.—Assistant Professor of Law.
LL.B., University of Michigan.
Graduate student, University of Michigan.
Editor legal Journal; Practicing attorney, Michigan and California.
Instructor, San Diego High School and Junior College.

FRANK M. WATENPAUGH, M.A.—Instructor in Commerce.
A.B., Pomona College; M.A., University of Southern California.
Graduate student, University of California.
Instructor in Extension Division, University of Southern California; Instruc-
tor in and Principal of high schools in California; public accountant.

ASSISTANTS

ARTHUR JAMES O. ANDERSON, A.M. .................................... English
MURIEL BENNETT, B.A. ............................................ Physical Education
VIRGINIA E. CULVER, A.B. ........................................ Training School
ROBERT S. HOARD, A.B. ............................................ Zoology
JOHN D. WIMMER, M.A. ............................................ History

SUPERVISORS IN THE EUCLID SCHOOL

HELEN K. SYLVESTER ............................................. Principal
RUTH M. COOPER ................................................ MURIEL CLAYTON
MARIE M. JOHNSON ............................................ MARGARET J. TROXEL

SPECIAL LECTURERS

GEORGE D. HUFF, M.D., F.A.C.S. .......................................................... F. G. LINDEMULDER, M.D.

MEDICAL STAFF

O. S. HARBAUGH, M.D. ........................................ Medical Examiner (Men)
RIETA C. HOUGH, M.D. ........................................ Medical Examiner (Women and Training
School)

MARILYNN M. FENWICK, R.N. ............................................ College Nurse

LIBRARY STAFF

JOHN PAUL STONE, M.S. in Library Science .....................................Head Librarian
ELSIE ANDERSEN, A.B. ................................................ Assistant Librarian
LULU GERMANN, B.S. ................................................ Assistant Librarian
EVELYN HOLCOMB, A.B., and Certificate of Librarianship....................... Assistant Librarian
GENEVIEVE KELLY, A.M. ................................................ Assistant Librarian
GERALDINE KIRKHAM, A.B., B.S. ......................................... Assistant Librarian
HARRIET B. STOVALL .......................... Assistant Librarian in charge of Training
School Library Department

STAFF OF REGISTRAR'S OFFICE

MARGUERITE V. JOHNSON, A.M. ................................................ Registrar
DOROTHY MAY COOPER ........................................ Assistant Registrar
MADOLY J. BARNES, B.A. ............................................ Secretary to the Registrar
VERNA E. SHACKELFORD, A.B. ...................................... Clerk

STAFF OF BUSINESS OFFICE

F. W. VAN HORN ................................................ Financial Secretary
L. J. CROUCH ................................................ Assistant Financial Secretary
MAYME J. SULLIVAN ................................................ Telephone Operator
THE COLLEGE

HISTORICAL SKETCH

The San Diego State College has developed through three definite cycles. It was first known as the State Normal School of San Diego. It was established by legislative enactment in 1897 and opened in the fall of 1898.

The second stage of its growth began in 1921, when the legislature converted all the California normal schools into state teachers colleges. During the same year, the San Diego Junior College was merged with the teachers college. This combination made lower division collegiate courses available in a single institution for the various types of students in the community. From 1927 to 1934, the junior college relationship was discontinued, and the teachers college carried the lower division offerings. These offerings were enriched when the junior college arrangements were resumed in September, 1934. In 1928, the four-year curricula were established leading to the A.B. degree with a major in education. The complete list of teaching credentials authorized by the State Board of Education at that time and subsequently, to be granted in connection with the degree, are as follows: general elementary, general junior high school; special secondary in art, business education, music, and physical education. Presecondary curricula were first authorized by the State Board of Education in 1928 and major subjects were approved from time to time until a total of thirteen was finally reached: art, chemistry, commerce, economics, English, geography, history, mathematics, music, physical science, physics, Romance languages, and zoology.

In September, 1935, the college entered upon its third phase when it became, by legislative enactment, the San Diego State College. This enabled the college to drop the requirement in education courses from the curricula previously known as presecondary and to convert them into liberal arts curricula leading to the A.B. degree with any one of the thirteen majors enumerated above. Thus, while still retaining teacher education as a major function, the San Diego State College is now able to offer a rather broad liberal arts program for students with varied objectives and needs.
ENVIRONMENT AND STANDARD

OPPORTUNITIES FOR CULTURE AND RECREATION

In cultural standards in art, music, literature, and science, San Diego is a favorable college city. While it is not large, it has certain distinctive metropolitan advantages for the student. Many of these are to be found in the heritage resulting from the expositions of 1915-1916 and 1935-1936, including the buildings themselves, which in their consistent and effective carrying out of motifs of the best types of Spanish colonial art, make up one of the finest exhibits in architecture in America. HOUSES in these buildings are exhibits in anthropology and culture history which are unsurpassed in certain fields, together with natural history collections, and materials for the study of American archaeology. There is complete cooperation with the directing boards controlling the collections. The Fine Arts Gallery contains excellent exhibitions of paintings. There are plans for the development of a Public Conservatory of Music for which the great out-of-doors in Balboa Park furnishes a beginning. Balboa Park, in which all of these facilities are located, also contains a modern horticultural farm and a great stadium for games, community gatherings, and pageants.

At La Jolla, within the city limits, the Scripps Institution of Oceanography, operated by the University of California, gives opportunity for important cooperation in the biological field.

The courses in commerce and other branches of economics will be considerably aided by San Diego's growing importance as a commercial point, particularly as the college will be able, as is planned, through its department of economics, to assist the local Chamber of Commerce in industrial and commercial surveys.

The teacher-training program profits because of the policy of cooperation generously followed by the City School Department, which has resulted in a plan for laboratory work in practice teaching in the city schools. San Diego's fine system of schools, with all of the modern divisions of kindergarten, elementary school, junior high schools, and senior high schools, furnishes unusual opportunities for observation and demonstration to students in training, and for cooperation between the specialists of the city school system and the college.

PHYSICAL CONDITIONS: CLIMATE

The physical conditions in San Diego for study are unsurpassed, since sustained intellectual effort can be maintained always with comfort in the cool, even climate of the place. Temperatures are usually shown on a globe by lines which pass through regions of the same degree of heat or cold. Red lines of 60 degrees and 70 degrees, showing the summer temperature at San Diego, enclose Alaska and Siberia. Blue lines of 59 degrees and 60 degrees, showing the winter temperature at San Diego enclose Egypt and Arabia. Thus San Diego may be said to have Alaskan summers and Egyptian winters.

Recreational opportunities of an unusual number and variety are open to students because of the combination of bay, sea beach, mesas, foothills, and mountains, all within compass of two hours travel by automobile. Outdoor sports of all kinds, including swimming and rowing, are possible the year round.

BUILDINGS AND EQUIPMENT

On February 1, 1931, the college was moved to the new buildings and campus, located one mile north of the city's principal east-west boulevard, El Cajon Avenue. The campus has an area of one hundred twenty-five acres. The new buildings are part of a general plan to be completed within the next few years. This plan calls for one style of architecture for the entire group of the Spanish-Moorish type, which is well suited to the landscape and climate of the region. The buildings now in use include the Academic Building, which houses lecture halls, classrooms, and administrative offices; Science Building; Library; Little Theater; Training School; Scripps Cottage (a social clubhouse for women students); the Student Building, housing the soda fountain, cafe, and bookstore; the Physical Education Building, a structure of the duplex gymnasium type, with adequate facilities for the physical education and development of both men and women. The campus also contains playing fields and courts for collegiate sports and athletics. The training school is supplied with its own, separate play spaces.

A concrete stadium with wooden seats is in the process of construction, and a portion of it to accommodate about 10,000 persons is expected to be ready for the football season of 1936. The ultimate seating capacity will be approximately 45,000 and the final cost about $425,000; it will be equipped with an electric score board, public address system, and flood lights for night games.

AFFILIATED PRACTICE SCHOOL

The Euclid School, a San Diego City elementary school, is affiliated with the college for practice teaching purposes. Cadets are assigned to teach in this school after having had successful initial experience in the Training School or elsewhere. The assignment is for a full half-day for the semester and carries a maximum of seven and one-half units of credit.

STANDARDS OF HEALTH, SCHOLARSHIP AND CHARACTER

All entering students are required to meet the health standards set by the department of physical education, and all lower division students, unless excused for cause, are required to take the courses in physical education, prescribed for freshmen and sophomores. Furthermore, each student is expected as a matter of efficient student and community life to keep himself in the best possible physical condition. Standards of scholarship are based upon high entrance standards. Frequent ratings of the student are made by his instructors, so that he may at all times know how he stands; but the ability of the student to manage his own educational career and to come reasonably near to his best capabilities are factors that will count in his final ratings.
Since standards of character, as developed by and measured by honest student work and as revealed by evidences of the possession of thorough-going self-respect and community feeling, particularly as to ideals in the important matters of citizenship and future parenthood, are more important than all else, every student will have full opportunity to show that he is worthy and that he has the capacity and the will to manifest and develop character.

**ROUTINE AND PROCEDURE**

Outside of the necessary routine and procedure in the conduct of registration, class attendance, conduct of examinations, and the like, college affairs are controlled by standards which are the result of experience or which reflect a very definite public opinion and college morale. There is no honor "system," but there is a standard of honor as to honesty in college work. Matters of personal conduct are not the subject of rules and regulations, but are affairs of personal and individual responsibility. Problems of conduct and control affecting the student body or student groups are dealt with as they arise (if they are not already the subject of custom, or of student body by-laws) and usually are settled by student action.

**ORGANIZATION**

**THE CALENDAR AND REGISTRATION**

The college year is divided into the fall and spring semesters of eighteen weeks each, followed by a summer session consisting of terms of six and three weeks. Students may enter at the beginning of either semester and at the beginning of either the six or the three weeks' summer term.

The Summer Session meets the needs of regular students who wish to gain credits toward the A.B. degree, of teachers in service, and of liberal arts students who wish to secure supplemental credit or to shorten the time for completion of work in the lower division.

Registration of students will be made September 14 and 15 for the fall semester, and February 9 and 10 for the spring semester. Entering freshmen are required to file the high school principal's recommendation or the high school transcript before registration day. This recommendation must be made on a form furnished by the college. Those entering with advanced standing must submit transcripts of record covering high school and college work by August 21, January 22, and June 4, for admission to the fall and spring semesters of 1936-1937, and the summer session of 1937, respectively. An application for evaluation must also be filed, stating which curriculum is desired. In the case of transcripts arriving after the dates specified, persons will run the risk of being obliged to register as special students, without adequate advice concerning their programs with reference to requirements.
strate to the satisfaction of the state college authorities that a satisfactory degree of proficiency has been attained in the courses in question.

From junior colleges. Credits earned in accredited junior colleges shall be evaluated in accordance with the following provisions: (1) Not more than sixty-four semester hours of work may be allowed for credit. (2) No credit may be allowed for professional courses in education.

N. B.—Transcripts of record from other institutions will not be returned or copies of them made.

III. Special Standing

Applicants over twenty-one years of age, who are not high school graduates and who do not possess equivalent preparation but whose score on a standard college aptitude test indicates ability to do satisfactory college work in the chosen curriculum, may be granted provisional admission as special students but such persons may be granted full matriculation only upon the removal of all deficiencies and upon the completion of one full semester's satisfactory college work in the chosen curriculum.

MATRICULATION RECOMMENDATIONS FOR CERTAIN CURRICULA

In planning to comply with the foregoing requirements for freshman standing, the prospective student is advised to arrange his high school program so as to enable him to enter without handicaps the work of the curriculum to which he seeks admission. Although deficiencies in certain subjects may be removed after admission to freshman standing, such removal will not only reduce the student's opportunity for elective study but may make it necessary for him to extend his college course beyond the normal period of time required for its completion.

In general preparation for a teacher-training curriculum, the prospective student should have attained proficiency in reading, spelling, handwriting, arithmetic, and the use of English.

In preparation for major work in the biological sciences and in the premedical and predental curricula, the prospective student is advised to include chemistry or physics and French or German. For a college major in mathematics or physics, the student should include French or German, geometry, algebraic theory and trigonometry in his high school program, and for a major in chemistry he should include algebraic theory and physics or chemistry. Algebraic theory and trigonometry are recommended for a major in commerce. In his preparation for engineering curricula, the prospective student is strongly urged to lay a good foundation in the study of elementary algebra, plane geometry, algebraic theory, trigonometry, physics, chemistry, and mechanical drawing. For a major in English or a foreign language, the study of Latin is recommended.

MATRICULATION

A student is matriculated when he has satisfied all entrance requirements. The standing of all students is conditional during the first semester of residence.

REGISTRATION

Registration takes place on regularly appointed days at the beginning of each semester. Faculty advisers representing every curriculum assist students in the planning of their programs, but students are urged to study the requirements of the curriculum they intend to follow and to decide upon their choice of electives before consulting their advisers. New students should not expect assistance with their programs until registration day. Upper division students in teacher-training curricula, however, are given the privilege of planning their programs during a preregistration period held in the latter part of each semester, when they may hold more lengthy consultations with their advisers than on registration day. Since payment of fees is one of the first steps in the registration procedure, students should be careful to provide themselves with sufficient funds on registration day.

TESTS REQUIRED AT REGISTRATION TIME AND LATER

(See Calendar for dates)

1. An examination for the determination of physical fitness is required of all students at entrance. Appointments are made during registration.

2. All students entering the college are required to take the College Aptitude Test, mainly for purposes of guidance and assistance. Exceptions may be made for students who register for five units of work or less, for former graduates of this college, and for graduates of approved four-year colleges.

3. The Subject A Test (English Composition) is required of all entering students. English 1A must be taken by all students whose tests indicate that they are not qualified for English 1B, even though they may not intend to take that course. No student may enroll for his third semester of attendance unless he has qualified for English 1B or is enrolled in English 1A. Exceptions may be made for students transferring credit in English from another college.

4. Passing the Fundamentals Test in reading, spelling, arithmetic and handwriting is a prerequisite for admission to upper division courses in teacher training curricula. Students should take this test upon entrance to college in order that they may have sufficient time to make up deficiencies, if any, before applying for admission to the upper division. Exceptions may be made for former graduates of this or other California State teacher training institutions who have been teachers in service.

5. All candidates for a teaching credential are required to take a Speech Test. Remedial work will be required of all who fail to pass the test.
LATE REGISTRATION

A new student who registers after the close of the first week of the semester is subject to a limitation of his program. A fee of $2 must be paid for registration after the regular registration period. After the first week of the semester, the instructor's approval must be secured for each course entered.

CHANGES IN REGISTRATION

Changes in program may be made only with the approval of the student's adviser. In addition, the instructor's approval must be secured for entering a course after the first week.

A statement regarding withdrawals from class is to be found on page 30.

AUDITORS

Regular auditors must register in the usual way, though this may be done on the first day on which they have classes, without payment of the late fee.

FEES (SUBJECT TO REVISION)

Fees Payable at Time of Registration

<table>
<thead>
<tr>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resident students</td>
<td>$6.50</td>
</tr>
<tr>
<td>Limited students and auditors (5 units or less)</td>
<td>2.50</td>
</tr>
<tr>
<td>*Nonresident students—1st semester</td>
<td>75.00</td>
</tr>
<tr>
<td></td>
<td>2nd and subsequent semesters</td>
</tr>
<tr>
<td>Training school pupils</td>
<td>2.50</td>
</tr>
<tr>
<td>Late registration fee (effective after the registration period)</td>
<td>2.00</td>
</tr>
<tr>
<td>Locker (key or combination padlock each issue)</td>
<td>25.00</td>
</tr>
<tr>
<td>Local Organizations—</td>
<td></td>
</tr>
<tr>
<td>Student Body Fee</td>
<td>5.50</td>
</tr>
<tr>
<td>Associated Men Students or Associated Women Students Fee</td>
<td>50.00</td>
</tr>
</tbody>
</table>

Fees Payable When Service Is Rendered

<table>
<thead>
<tr>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Aptitude Test</td>
<td>$2.00</td>
</tr>
<tr>
<td>English—Subject A Test</td>
<td>25.00</td>
</tr>
<tr>
<td>Fundamentals Test</td>
<td>50.00</td>
</tr>
<tr>
<td>Placement Office</td>
<td>2.00</td>
</tr>
<tr>
<td>Placement Office—copy of papers—3 for</td>
<td>25.00</td>
</tr>
<tr>
<td>Evaluation of Record for Advanced Standing</td>
<td>20.00</td>
</tr>
<tr>
<td>Duplicate Library Card</td>
<td>10.00</td>
</tr>
<tr>
<td>Transcript of Record</td>
<td>1.00</td>
</tr>
<tr>
<td>Carbon copy of Transcript of Record</td>
<td>25.00</td>
</tr>
<tr>
<td>Special Examination</td>
<td>2.00</td>
</tr>
</tbody>
</table>

*See page 27 for definition of residence for fee-paying purposes.

State Teaching Credential**

Elementary
Junior High School
Elementary and Junior High School
Special Secondary
School Administration
School Supervision

Each Credential $3.00

Fees Payable During Seventh Week of Each Semester

<table>
<thead>
<tr>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library</td>
<td>$1.25</td>
</tr>
<tr>
<td>Mimeographing</td>
<td>50.00</td>
</tr>
<tr>
<td>Health</td>
<td>75.00</td>
</tr>
<tr>
<td>Towel, men</td>
<td>1.50</td>
</tr>
<tr>
<td>Towel, women</td>
<td>1.00</td>
</tr>
<tr>
<td>Parking</td>
<td>50.00</td>
</tr>
</tbody>
</table>

In addition to the above, there are laboratory fees and course charges for certain courses, ranging from 50c to $7.50 per course, which are payable during the seventh week of each semester.

LIVING EXPENSES

Since no dormitories are maintained by the college, it is impossible to supervise the living quarters of college students. Students are required to keep the office of the Dean informed of their places of residence if not living with parent or guardian, and every effort is made to assist them in choosing suitable living accommodations.

The Dean of Women will furnish upon request addresses of homes in which board and room may be secured; also lists of apartment houses and single rooms which may be patronized by students.

Board and room, two meals per day, may be procured at from $35 to $45 per month. While at present there are very few accommodations in the immediate vicinity of the college, all of those listed are within reasonable distance and easily accessible to the college.

SELF HELP AND LOAN FUND

A limited amount of clerical work in offices and library may be offered from time to time, but ordinarily is not sufficiently remunerative to reduce expenses materially. An employment service is conducted by an administrative committee, members of which are the Dean of Women, the Dean of Men and the Dean of Liberal Arts.

The San Diego State College Loan Foundation is administered by the Alumni Association for the purpose of helping worthy students with insufficient financial resources to continue their education. Both long and short term loans are available to students who have been in attendance at the college for at least one year. Loan funds are also administered by the San Diego City Teachers' Association, the Scottish Rite Woman's Club, and the Thursday Club.

**The credential fee is collected through the college office by post-office money order payable to State Department of Education.
SCHOLARSHIPS AND PRIZES

Cap and Gown, Senior Women’s Honorary Society, awards a fifty-dollar scholarship annually. Any upper division woman student with a grade-point average of at least 2.01 is eligible to apply. Application is made to the Dean of Women in May of the year preceding awarding of scholarship.

Miss Vivian Conway, past president of the San Diego chapter of the American Association of University Women, offers an annual award, consisting of a first prize of $10 and a second prize of $5, for essays written on a subject in the field of French literature. This competition is open to students in the upper division French classes.

The Spanish Department offers an annual award, consisting of a first prize of $10 and a second prize of $5, for essays written on a subject in the field of Spanish literature. This competition is open to students in the upper division Spanish classes.

ADMINISTRATIVE REGULATIONS

OFFICERS FOR CONSULTATION

Concerning the housing and living arrangements of students, dates and arrangements for all student social affairs, personal advice (women)—The Dean of Women.

Concerning matters of student-body policy, personal advice (men), etc.—The Dean of Men.

Concerning supervision of practice teaching, conference, credential requirements, etc.—The Dean of Education.

Concerning matriculation, program of studies and teaching, credits, etc.—The Registrar and the Board of Student Advisers.

Concerning health and physical condition, physical education, athletics, etc.—The Director of Physical Education (women); The Director of Physical Education (men).

Concerning relations to the training school, to pupils, routine, etc.—The Principal of the Training School.

Concerning student-body affairs—The executive officers of the student body; the Dean of Liberal Arts; the Dean of Women; the Dean of Men.

Concerning Appointments to teaching positions—The Placement Secretary.

Concerning use of the buildings—The Superintendent of Buildings.

RESIDENCE

For fee-paying purposes, residence is defined as “the place where one remains when not called elsewhere for labor or other special or temporary purpose, and to which he returns in seasons of repose. There can be only one residence. The residence of the father during his life and after his death, the residence of the mother while she remains unmarried, is the residence of the unmarried minor child. The residence of the husband is the residence of the wife.” (Sec. 52, Political Code of the State of California.)

CLASSIFICATION

Regular students are those students who have complied with the requirements of admission and are registered in 5½ or more units of work.

Limited students are partial course students who, for adequate reasons, have been permitted to register for 5 units of work or less.

Special students are mature students who have not satisfied all entrance requirements and who are registered for such courses as their ability and
preparation qualify them to pursue. Special students may also be limited
students.
For convenience in administration, students who have completed 0 to
29 units of work are classified as freshmen; those who have completed
30 to 59 units, as sophomores; those who have completed 60 to 89 units,
as juniors; and those who have completed 90 or more units, as seniors.

UNITS OF WORK AND STUDY-LISTS LIMITS
A unit of credit represents approximately, for the average student, three
hours of actual work per week through one semester—one hour of
lecture or recitation, together with two hours of preparation; or three
hours of field or laboratory work.
Sixteen units, in addition to physical education (½ unit), constitute a
normal semester's program for all students. An entering freshman, how-
ever, is allowed to enroll for a maximum of 17 units, and all other
students for a maximum of 18 units, provided such additional enrollment
seems to the adviser necessary or advisable in order to round out the
study program. Ordinarily, only 16 units, in addition to physical edu-
cation, will be credited toward graduation; except that, after a student's
first semester at the college, a program of 17 units, in addition to physical
education, will be credited provided the student was registered for at
least 12 units in the preceding semester and attained an average of not
less than 1.5 grade points; 18 units will be credited provided the student
attained an average of not less than 2.0 grade points. Any course in
which a student received a passing grade may be used in the satisfac-
tion of course requirements, even though such course is in excess of the
units credited for graduation. Credit for a program that does not con-
tin to the above regulations can be obtained only by permission of the Scholar-
ship Committee, upon petition. No student will be allowed to register
for less than 12 units without the approval of the academic dean of his
department.

SCHOLARSHIP GRADES AND GRADE POINTS
The following grades are used in reporting the standing of students at the
end of each semester: A, excellent; B, good; C, fair; D, passed; E,
conditioned; F, failed; I, incomplete.
Grade points are assigned as follows: Grade A, 3 points per unit; B,
2 points per unit; C, 1 point per unit; D, no points; E, minus 1 point
per unit; F, minus 1 point per unit.
The grade E is used to record work which is of low order but which
may be made passable. If by the close of the next semester the work
has been satisfactorily completed the grade E is changed to a D; oth-
erwise it is changed automatically to an F. The grade I is used to record
work which may be of higher order but which is incomplete for some
acceptable reason. Ordinarily to change an I to another grade the work
must be completed within a year. In case of failure in a course, no
credit is given until the course has been repeated.
To qualify for a certificate in any curriculum or for a diploma of gradu-
ation or for a transcript of record with recommendation, in transferring
to another collegiate institution, a student must have earned as many
grade points as the number of units he has attempted; that is, he must
have attained an average of at least C grade in all work undertaken at

the college. On a transcript of record for a student whose scholarship is
below a C average, the honorable dismissal shall be qualified by the
phrase "except for scholarship."

ELIGIBILITY FOR PRACTICE TEACHING
No student shall be eligible for practice teaching (Education 116) who
has not completed 75 units, been admitted to upper division teacher
training, and whose entire record, and also his record for the preceding
semester, does not average C grade.

PROBATION AND DISQUALIFICATION
A scholarship record below an average of grade D per unit of work
undertaken in any single semester disqualifies a student for further attend-
ance at the college.
Any student whose scholarship record shows a cumulative deficit of 12
or more grade points for all work undertaken in the college to the close
of any semester will be placed on probation.
A student whose study lists have averaged less than 12 units per
semester will be placed on probation if his cumulative deficit equals or
exceeds the average number of units carried per semester.
Any probationary student whose scholarship falls below an average grade
of C in any single semester is disqualified for further attendance at the
college. Probationary status may be continued until the cumulative
grade-point deficit be reduced, in the case of a regular student to an
amount less than 12 and, in case of a limited student, to an amount less
than the average number of units carried per semester.
A disqualified student may be reinstated after an interval of one semester
for reasons satisfactory to the Executive Committee. All applications
for reinstatement must be in writing.

SPECIAL EXAMINATIONS
Special examinations are classified as (1) matriculation examinations;
(2) final examinations taken at other than the regular time; (3) exami-
nations taken for the purpose of removing conditions; (4) examinations
for advanced standing.
For every special examination given, the student shall pay a fee of two
dollars at the business office. The instructor shall give such examination
only on the presentation by the student of a receipt showing that the fee
has been paid.

EXAMINATIONS AT SPECIAL TIMES
No final examinations shall be given to individual students before the
regular final. Any student who finds it impossible to take a final exami-
nation on the date scheduled must make arrangements with the instructor
to have an incomplete grade reported and must take the deferred final
examination not later than the end of the second semester following that
in which the incomplete was given. No exceptions shall be made to this
rule without the approval of the dean of the department and the instructor
concerned.
CONDUCT OF EXAMINATIONS

All final examinations shall be written in Official Examination Books or other forms which shall be furnished by the college and distributed by the instructor at the beginning of the examination period. No books or papers of any kind shall be brought into the examination room, except by special order of the instructor.

WITHDRAWALS FROM CLASS

A student may not withdraw from class without the permission of the proper study-lists officer on a "change of registration card," which must be filed in the Registrar's Office. An unauthorized withdrawal from a class will result in a mark of failure on the student's record. A withdrawal after the third week of a semester except for reasons beyond the student's control is interpreted as a failure in the course. A student who is obliged on account of ill health to withdraw completely from college after the third week may, upon presentation of a physician's certificate, have his courses dropped from his record without penalty if he has maintained a C average in all his studies up to the beginning of the current semester. Any student who withdraws completely from college for any other cause after the third week may have those courses in which his grade was C or better at the time of his withdrawal dropped from his record without penalty, but a grade of F (failure) will be recorded for all courses in which his work was below C at that time.

PLACEMENT SERVICE

A Placement Office is maintained by the college as a clearing house of employment information for superintendents and employing boards and students of the college. While the purpose of this office is to assist candidates in securing positions, it is the primary aim of the office to bring about a better adjustment of the teacher to the community. A complete record of college attainments is kept in a confidential file for each registrant of the office and this material is made available to employers. Recommendations are based on records which indicate every item in the candidate's equipment, and particular care is taken to select in each case the candidate who can best meet the requirements of the position. A fee of $2 is payable each year in which active service is desired.

STUDENT LIFE

ORGANIZATIONS

Student affairs, and organizations to foster them, are many and varied, but are well coordinated through the central student body organization. The Associated Students. The following lists indicate the fields of activity:

Amphi (Library Assistants); Art Guild; Biology Club; College Orchestra; Delvers (Geology); El Club Azteca; International Relations Club; Le Cercle Francais; Masquers; Nu Alpha Chi (Japanese); Photophans; Press Club; Roadrunners (Geography); Skull and Dagger (drama).

National Honor Societies: Alpha Mu Gamma (Language); Kappa Delta Pi, Alpha Sigma Chapter (Education); Lambda Delta Lambda; Delta Kappa Chapter (Chemistry).

Men's: Alpha Phi Omega (National); Associated Men Students; Aztec Fencing Club; Blue Key (National); College Band; Glee Club; Oceotl (Lower Division); Physical Education Club; Tau Sigma (Economics); Toastmasters' Club.

Social Fraternities: Delta Pi Beta; Epsilon Eta; Eta Omega Delta; Kappa Phi Sigma; Omega Xi; Phi Lambda Xi; Sigma Lambda; Tau Delta Chi.

Women's: Associated Women Students; Cap and Gown; Cetza (Lower Division); College Y. W. C. A.; Mu Gamma (Music); Mu Sigma Pi (Music); Pi Phi Epsilon (Economics); Physical Education Club; Toastmistresses' Club; Treble Cief (Glee Club); Women's Athletic Association.

Social Sororities: Alpha Sigma Alpha, Omega Omega Chapter; Delta Chi Phi; Epsilon Pi Theta; Gamma Phi Zeta; Kappa Theta; Phi Kappa Gamma; Phi Sigma Nu; Shen Yo; Sigma Pi Theta; Tau Zeta Rho; Theta Chi.

Men's Athletics: Football; baseball; basketball; track; swimming; tennis, cross country; wrestling; fencing; and golf.

Women's Athletics: Rowing; swimming; tennis; golf; horseback riding; and seasonal sports.

Publications: The Aztec (weekly); Del Sudoeste (year book); and El Palenque (quarterly).

ALUMNI ASSOCIATION

The college has an active Alumni Association. Since its reorganization in March, 1929, the association has steadily gained in membership. The annual Homecoming is an important event each year; other meetings take place on dates of important athletic contests. The association also sponsors the organization of Aztec clubs in various communities. Information concerning the association may be obtained by writing the secretary at the college.
DEGREE REQUIREMENTS

GENERAL REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS IN THE CURRICULA WITH TEACHING CREDENTIALS

Total Units, Length of Time, and Residence

A minimum of 124 units of college work is required, representing a four-year course. Students who are planning to secure California teaching credentials through graduation from this college are urged to follow the curriculum pattern for the credential or credentials which they wish to earn, throughout the entire four years. Not less than 54 units must be earned in the junior and senior years; at least 30 units of work at this college; twenty-four of these residence units must be taken with the rank of senior, at least twelve of which must be taken in the fall or spring semester of the final year before graduation.

Admission to Upper Division Teacher Training

Students are not admitted to upper division status in teacher training on the basis of merely having completed the lower division work. Application for admission to upper division work should be made during the final semester of the sophomore year and a committee of the faculty, appointed for this purpose, will review the candidate's records and make recommendations regarding admission. In the main, this committee will be guided by the following factors:

1. The completion of the lower division work of a given teacher training curriculum including all the preliminary tests required of teacher training candidates with a scholastic record of C or better.
2. Physical fitness as shown by a prescribed examination given by a college physician.
3. Fitness for teaching to be determined by interviews and evaluations by a committee of the faculty who will consider the following additional factors established by the State Board of Education: intelligence, scholarship, professional aptitude, personality and character, speech and language usage, and many-sided interest.

Upper Division Course Requirements

At least 40 of the units completed during the junior and senior years shall be in upper division courses (see definition under heading Courses of Instruction); junior standing requires 60 units of credit. Introductory courses open to first semester freshmen when taken in the junior or senior year may involve either additional work or reduction in the number of units of credit.

Advanced Standing in Teacher Training

A maximum of 18 units in courses in education will be credited toward degree requirements in case such work was taken more than 5 years before entering upon the degree curriculum at this college (date of first work taken after an evaluation of record has been made, for students entering with advanced standing). After an interval of 5 years subsequent to last attendance, evaluations are subject to revision with respect to deduction of credit in education courses and such new requirements as may have been put into effect.

Students formerly in attendance will not be considered to be working in the degree curriculum until an evaluation and statement of credit has been secured from the registrar's office. All courses taken either at this college or elsewhere must be approved by an official adviser or the registrar (for those taken elsewhere) in order to be credited toward meeting degree requirements.

Summary of Basic Requirements, Common to All Curricula in This Group

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>18 units</td>
</tr>
<tr>
<td>Lower division courses in English</td>
<td>6 units</td>
</tr>
<tr>
<td>Lower division courses in natural sciences</td>
<td>14 units</td>
</tr>
<tr>
<td>Physical Education activity</td>
<td>2 units</td>
</tr>
<tr>
<td>Political Science 101</td>
<td>2 units</td>
</tr>
<tr>
<td>Psychology 1A</td>
<td>3 units</td>
</tr>
<tr>
<td>Lower division courses in social sciences</td>
<td>14 units</td>
</tr>
</tbody>
</table>

Explanation of the basic requirements:

In the different curricula leading to the various teaching credentials, specific courses are required in the various subjects listed in the summary which may total more than the minimum given in the summary. In addition, the following information must be taken into consideration in connection with fulfilling the requirements in each subject.

English

Courses in journalism or in speech arts are not accepted in satisfying this requirement. The following courses or their equivalents are required: English 1A, 1B, and 2 or 3.

Natural Sciences

The electives in natural science may be reduced to a minimum of 8 units if the student presents acceptable grades from the high school in natural science in laboratory courses offered exclusively for the third or fourth year students. In general, each year's work of high school science will thus reduce the requirements by 3 units of credit. No college credit will be given for the high school work; merely an exemption of the requirements will be permitted. The college courses which may be used in
satisfaction of this requirement are: Agriculture 20, Astronomy 1, 5, 11; Biological Science 1, 10A-10B, Botany 2A-2B, 4, 5, 7; Chemistry, 1A-1B, 5, 7-8; Geography 1, 3; Geology 1A, 1B; Physical Science 1, Physics 1A-1B, 1C-1D, 2A-2B, 3A-3B; Zoology 1A-1B.

Political Science 101

Political Science 113 or 152, or History 171A-171B or 173A-173B will be accepted as substitutes for this requirement.

Social Sciences

Courses in the following departments may be used in satisfaction of this requirement: Anthropology, economics (except 14A-14B), geography (except 1 and 3), history, political science, social science, sociology.

Major and Minor Requirements

For the elementary school credential, two academic teaching minors are required; for the junior high school credential, or for both the elementary and junior high school credentials together, an academic teaching major and an academic teaching minor are required. For the special credentials, the requirement consists of a major in the special subject and an academic teaching minor. An academic teaching major consists of a minimum of 24 units in a field other than education, twelve of which must be in the upper division. A C average in scholarship is also required in all upper division courses in the field of an academic teaching major. A major in a special subject varies from 24 to 40 units as specified in the requirements for the various curricula. An academic teaching minor consists of 12 units in a field other than education, six of which must be in the upper division. Academic teaching majors and minors may be established in the following fields: English, foreign languages, general science, mathematics, and social sciences (economics, geography, history, political science, sociology). Academic teaching minors may also be established in art, music, and physical education.

Candidates for the academic teaching major in the field of English will be expected to show credit in English 1A, 1B and 2 or 3 with six units of electives in the lower division; English 130A and 130B and six units of electives in the upper division. Candidates for the academic teaching minor in this field will be expected to show credit in English 1A, 1B and three units elected from 2, 3, 4A, 4B, 52A, 52B in the lower division; three units elected from English 130A or 130B, the remaining three units elected from English 101, 117, 130A, or 130B in the upper division.

Candidates for the academic teaching major in the field of general sciences must meet the general requirements of fourteen units of natural science in the lower division including Biological Science 10A-10B, unless taken in high school. The remaining units in the major must be chosen so as to include a year course in a biological science unless Biological Science 10A-10B is taken in college, a year course in physics and a concentration of twelve units, at least six of which are upper division, in one major subject (botany, chemistry, physics, zoology). Candidates for an academic teaching major in the field of the social sciences must meet the general requirements of fourteen units of social science in the lower division including Geography 2 and Social Science 1.

The remaining twenty units must be chosen so as to include a year course of six units in history in either the lower or upper division and a concentration of twelve units, at least six of which are upper division, in one major subject (economics, geography, history, political science). The following courses in economics may not be applied to the teaching major in social science: 14A-14B, 15A-15B, 125A-125B, 140, 160A-160B, 161, 162, 163, 164, 165.

Women candidates for an academic teaching minor in the field of physical education will be expected to show credit in Physical Education 30A, 30B, 37 or 38A, 38B, 53, and Hygiene 2 in the lower division; six units elected from Physical Education 102, 157A, 157B, 158, 161, 164, 170, 175A, or 178B in the upper division.

Combinations of Credentials

In the case of students seeking more than one teaching credential, the curriculum for each credential must be completed in full, with only such exceptions as are indicated in the requirements. After July 1, 1936, for each credential in addition to one, at least 12 additional units of credit must be earned, this work to be in electives in nonprofessional fields only, after the basic curriculum requirements have been satisfied.

Scholarship

The number of grade points acquired in this college by the candidate for a degree must be equal to the number of units attempted. (See page 28 for an explanation of scholarship grades and grade points.)

Preparation for Graduate Work

Students who take the A.B. degree with only a special credential and who contemplate doing graduate work for a master's degree in an academic field at another institution of higher learning, will find it advantageous to use their electives to lay a foundation for that work. The student who plans to do graduate work in the field of his academic teaching major is advised so to arrange his electives as to complete the liberal arts major to avoid the necessity of making up an undergraduate deficiency.
MEMORANDA FOR STUDENTS WHO WISH TO BECOME CANDIDATES FOR TEACHING CREDENTIALS

The college offers curricula leading to the A.B. degree with the following teaching credentials:

1. Elementary school credential authorizing the holder to teach any or all subjects in all grades of any elementary school in California.
2. Junior high school credential authorizing the holder to teach any or all subjects in the seventh, eighth, and ninth grades of any elementary or secondary school in California.
3. Special secondary credential in art authorizing the holder to teach art subjects in any grade of the public schools of California.
4. Special secondary credential in business education authorizing the holder to teach commercial subjects in any grade of the public schools of California.
5. Special secondary credential in music authorizing the holder to teach music in any grade of the public schools of California.
6. Special secondary credential in physical education authorizing the holder to teach physical education in any grade of the public schools of California.

For the requirements for the School Administration and School Supervision Credentials, see page 32 of this bulletin.

On the following pages of this bulletin are outlines of the curricular requirements for the A.B. degree with each of the credentials enumerated above. These outlines are for the purpose of guiding the student in his preparation for professional work. Any serious lack of preparation or scholarship in any of the subjects therein indicated, whether it be in the student’s high school or lower division college record may require additional work in that subject if, in the opinion of the Committee of Admission to Upper Division Teacher Training, the candidate’s record shows the need of such additional work.

Freshmen and students transferring to the college from another collegiate institution should take the following tests at their earliest opportunity: (Consult the College Calendar for the dates when these tests are to be given.)

1. College Aptitude Test.
2. Subject A Test (English Composition).
3. Fundamentals Test (Reading, Spelling, Arithmetic and Handwriting).
4. Speech Test.

The College Aptitude Test is for the purpose of assisting the student in overcoming his weaknesses and guiding him in his future work in the college. In case of failure to pass either of the last three tests enumerated above the student should immediately consult with his adviser relative to the remedial work he must do in that subject and arrange his program accordingly.

Several faculty members who are acquainted with teacher training curricula have been designated as teacher training advisers. There are advisers for lower division (freshman-sophomore) and upper division (junior-senior) students. The student should secure the assistance of one of the advisers for his group in making out his program of studies and learn to rely upon his adviser and the information contained in this bulletin and not to depend upon unreliable sources of information.

The subjects in the first two years of a given teacher training curriculum are quite similar to those being taken by most college students. In the last semester of the sophomore year the student who wishes to begin his professional work in teacher training must apply for admission to upper division teacher training. This is done by going to the office of the secretary of this committee and filing an application. The remaining procedure is explained under the general heading Admission to Upper Division Teacher Training, found on page 32 of this bulletin. The student’s record for his first two years in college is of considerable weight in securing admission to teacher training, so it is of importance to him to make the most of his opportunities. The committee will not be impressed favorably by excuses from students who have deficiencies in their records.

It is recommended that the student give careful consideration to the teaching field in which he is most interested and best fitted to function and concentrate upon preparation in that field rather than scatter his efforts by attempting to secure several types of teaching credentials. After July 1, 1936, the A.B. degree and only one teaching credential may be secured upon completion of a given curriculum and one hundred and twenty-four units of work; each additional credential will require a minimum of twelve additional units of work.

Finally, the student’s admission to college is predicated upon the assumption that he has reached a stage of maturity that will enable him to pursue his daily work and preparation in the courses in which he is enrolled without any considerable supervision and direction from his instructors. He will have a greater degree of freedom in the use of his time than he has had hitherto. One of the challenges of college life is the ability to meet and assume the responsibilities found therein in a satisfying way. The student may easily fall into the habit of justifying his failures or he may seek intelligently to determine their real causes and proceed to correct them. A definite budgeting of the student’s time, both while at home and on the campus, will be of great assistance to him.

If the student finds that his work is unsatisfactory for any considerable period of time he should consult with his dean in order to try to solve his difficulty.
### CURRICULA LEADING TO TEACHING CREDENTIALS

**A.B. Degree With Elementary School Credential**

#### FRESHMAN YEAR

<table>
<thead>
<tr>
<th>Units</th>
<th>First Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Art 6A, Structure</td>
</tr>
<tr>
<td></td>
<td>&quot;Biological Science 10A, Science of Life&quot;</td>
</tr>
<tr>
<td></td>
<td>English 1A or 1B, Freshman English</td>
</tr>
<tr>
<td></td>
<td>Geography 1, Elements (Natural Science)</td>
</tr>
<tr>
<td></td>
<td>Physical Education 1A or 36A</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Units</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Biological Science 10B, Science of Life</td>
</tr>
<tr>
<td></td>
<td>English 1B, Freshman English, or 2 or 3 Sophomore English</td>
</tr>
<tr>
<td></td>
<td>Geography 2, Regions (Social Science)</td>
</tr>
<tr>
<td></td>
<td>Music 1A, Music Reading and Ear-training</td>
</tr>
<tr>
<td></td>
<td>Physical Education 1B or 36B</td>
</tr>
</tbody>
</table>

#### SOPHOMORE YEAR

<table>
<thead>
<tr>
<th>Units</th>
<th>First Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>English 2 or 3, Sophomore English (unless taken in freshman year)</td>
</tr>
<tr>
<td></td>
<td>Physical Education 1C or 37, Games and Rhythms for the elementary school</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Units</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Physical Education 1D or 38A</td>
</tr>
<tr>
<td></td>
<td>Physical Education 53, Physical Education in the Elementary School, or Physical Education 54, Administration of Physical Education</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Units</th>
<th>Either Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Art 61A, Elementary Crafts</td>
</tr>
<tr>
<td></td>
<td>Art 61B, Elementary Crafts</td>
</tr>
<tr>
<td></td>
<td>Psychology 1A, General</td>
</tr>
<tr>
<td></td>
<td>Social Science 1, Pol., Soc. and Econ. Problems</td>
</tr>
<tr>
<td></td>
<td>Electives to meet requirements in Natural Sciences, Social Sciences, and minors</td>
</tr>
</tbody>
</table>

#### SUMMARY

| Units | Art 6A, 61A, 61B | 6 |
|-------| Education 106, 108, 116, 147, 148 | 32 or 33 |
|       | English | 6 or 7 |
|       | Music 1A | 2 |
|       | Natural Sciences (incl. Biol. Science 10A-10B and Geog. 1) | 14 |
|       | Physical Education 1A-B-C-D or 36A-36B, 37, 38A; 53; 151 | 6 |
|       | Political Science 101 | 2 |
|       | Psychology 1A, 102 | 6 |
|       | Social Sciences (including Social Science 1 and Geography 2) | 30 or 33 |
|       | Electives, including two academic teaching minors | 124 |

---

1. May be deferred until senior year and elective taken, if desired.
2. Candidates for the elementary school credential in combination with practice teaching in the elementary school are required to do not less than 6 units of any other type of credential.
3. Not required if student is meeting requirements for junior high school or special credential also.
4. If 6 units in minor taken in junior year, none needed in senior year.
5. See Summary of Basic Requirements for total requirements in English, Natural Sciences, and Social Sciences.
6. Unless minor is English, General Science or Social Sciences.
7. If 6 units in minor taken in freshman year, none needed in sophomore year.
### A.B. Degree With Junior High School Credential

**FRESHMAN YEAR**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological Science 10A, Science of Life</td>
<td>3</td>
</tr>
<tr>
<td>English 1A or 1B</td>
<td></td>
</tr>
<tr>
<td>Geography 1, Elements (Natural Science)</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 1A or 36A</td>
<td>3</td>
</tr>
<tr>
<td>Electives, including major and minor</td>
<td>8 or 6</td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological Science 10B, Science of Life</td>
<td>3</td>
</tr>
<tr>
<td>English 1B or 2 or 3</td>
<td>3</td>
</tr>
<tr>
<td>Geography 2, Regions (Social Science)</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 1B or 30B</td>
<td>3</td>
</tr>
<tr>
<td>Electives, including major and minor</td>
<td>7</td>
</tr>
</tbody>
</table>

**SOPHOMORE YEAR**

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 2 or 3, Sophomore English (unless taken in freshman year)</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 1C or 38A</td>
<td>3</td>
</tr>
<tr>
<td>Psychology 1A, General</td>
<td>3</td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education 1D or 38B</td>
<td>3</td>
</tr>
</tbody>
</table>

**Either Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Science 1, Pol., Soc. and Econ. Problems</td>
<td>3</td>
</tr>
<tr>
<td>Electives, including major and minor</td>
<td>22-25</td>
</tr>
</tbody>
</table>

**JUNIOR YEAR**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education 108, Educational Measurements</td>
<td>3</td>
</tr>
<tr>
<td>Education 125, Elementary School Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>Political Science 101, American Institutions (or substitute)</td>
<td>3</td>
</tr>
<tr>
<td>Psychology 102, Genetic</td>
<td>3</td>
</tr>
</tbody>
</table>

1. **Possible substitutions for the requirements in Biological Science 10A-10B:**
   1. High school Biology (year course with laboratory work).
   2. Botany 1A-2B and Zoology 1A-1B—16 units.
   3. High School Botany and Zoology 1A-1B.
   4. High School Zoology and Botany 2A-2B.
   5. Biological Science 1 and Physical Science 1—5 units.

2. Depending on result of Subject A test.

3. **See Summary of Basic Requirements** for total requirement in English, Natural Sciences, and Social Sciences.

4. Unless major or minor in English, General Science or Social Science.

5. **If 5 units in minor taken in freshman year, none needed in sophomore year.**

6. **Not required if student is meeting requirements for elementary credential also.**

---

### SUMMARY

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education 108, 116, 121, 125, Curriculum in Field of Academic Major, and elective in Education</td>
<td>20</td>
</tr>
<tr>
<td>English, General</td>
<td>6 or 7</td>
</tr>
<tr>
<td>Natural Sciences, including Biological Science 10A-10B and Geog. 1</td>
<td>14</td>
</tr>
<tr>
<td>Physical Education 1A-B-C-D or 36A-36B, 38A-38B; 151</td>
<td>4</td>
</tr>
<tr>
<td>Political Science 101</td>
<td>2</td>
</tr>
<tr>
<td>Psychology 1A, 102</td>
<td>6</td>
</tr>
<tr>
<td>Social Sciences, including Social Science 1 and Geography 2</td>
<td>14</td>
</tr>
<tr>
<td>Electives, including academic teaching major and minor</td>
<td>58 or 57</td>
</tr>
</tbody>
</table>

---

1. **If 6 units in minor taken in junior year, none needed in senior year.**
2. **See page 33.**
3. **See page 34.**
A.B. Degree With Special Credential in Art

This course leads to the A.B. degree and to the Special Secondary Credential in Art which entitles the holder to teach art in senior high, junior high, and elementary schools.

**LOWER DIVISION**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 6A-6B, Structure</td>
<td>4</td>
</tr>
<tr>
<td>Art 61A, 61B, Elementary Crafts</td>
<td>4</td>
</tr>
<tr>
<td>Education 19, Art in the Elementary School</td>
<td>2</td>
</tr>
<tr>
<td>English 1A; 1B, 2 or 3, Freshman and Sophomore English</td>
<td>6 or 7</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>14</td>
</tr>
<tr>
<td>Physical Education 1A-1B, 1C-1D (men): 36A-36B, 38A-38B (women)</td>
<td>2</td>
</tr>
<tr>
<td>Psychology 1A, General</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences, including Social Science 1, Political, Social and Economic Problems</td>
<td>14</td>
</tr>
<tr>
<td>Electives, including additional art for major and courses for academic teaching minor*</td>
<td>14-15</td>
</tr>
</tbody>
</table>

**UPPER DIVISION**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education 116, Practice Teaching (4 units in special field)</td>
<td>6</td>
</tr>
<tr>
<td>Education 129, Art in the Junior High School</td>
<td>2</td>
</tr>
<tr>
<td>Education 121, Principles of Secondary Education</td>
<td>3</td>
</tr>
<tr>
<td>Education 125, Elementary School Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>Education elective (suggested: Education 108 or 128)</td>
<td>3</td>
</tr>
<tr>
<td>Political Science 101, American Institutions (or substitute)</td>
<td>2</td>
</tr>
<tr>
<td>Electives, including additional art and academic teaching minor*</td>
<td>41</td>
</tr>
</tbody>
</table>

**SUMMARY**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art major</td>
<td>40</td>
</tr>
<tr>
<td>Education</td>
<td>19</td>
</tr>
<tr>
<td>*Natural Sciences</td>
<td>6 or 7</td>
</tr>
<tr>
<td>Physical Education</td>
<td>14</td>
</tr>
<tr>
<td>Political Science 101, American Institutions</td>
<td>2</td>
</tr>
<tr>
<td>Psychology</td>
<td>3</td>
</tr>
<tr>
<td>*Social Sciences (including Social Science 1)</td>
<td>14</td>
</tr>
<tr>
<td>Electives, including academic teaching minor*</td>
<td>29-24</td>
</tr>
</tbody>
</table>

1 Depending on result of Subject A test.
2 Unless minor is in English, general science, or social science.
3 Not required if student is meeting requirements for elementary credential also.
4 Maximum credit allowable in art.

A.B. Degree With Special Credential in Business Education

This course leads to the A.B. degree and to the Special Secondary Credential in Business Education, which entitles the holder to teach business subjects in senior high and junior high schools.

In addition to the following academic requirements, satisfactory evidence of one-half year, or 1000 hours of approved experience in the field named in the credential must be submitted. For the credentials in the General Business Subfield twelve semester hours of work above the requirements for a bachelor's degree may be offered in lieu of the six months of full-time experience. At least six semester hours of the twelve must be in business or economics.

**ACCOUNTING AND SECRETARIAL SUBFIELDS**

**LOWER DIVISION**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics 1A-1B, Principles</td>
<td>6</td>
</tr>
<tr>
<td>Economics 14A-14B, Accounting</td>
<td>6</td>
</tr>
<tr>
<td>English 1A, Freshman English, or elective†</td>
<td>1</td>
</tr>
<tr>
<td>Geography 1, Elements (Natural Science)</td>
<td>3</td>
</tr>
<tr>
<td>Geography 2, Regions</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics 2, Mathematics of Investment</td>
<td>11</td>
</tr>
<tr>
<td>*Natural Sciences</td>
<td></td>
</tr>
<tr>
<td>Physical Education 1A-1B, 1C-1D (men), or 36A-36B, 38A-38B (women)</td>
<td>2</td>
</tr>
<tr>
<td>Secretarial Training A, Business Mathematics</td>
<td>6</td>
</tr>
<tr>
<td>Secretarial Training 1A-1B, Typewriting</td>
<td>10</td>
</tr>
<tr>
<td>Secretarial Training 5A-5B, Stenography</td>
<td>3</td>
</tr>
<tr>
<td>Secretarial Training 6A, Advanced Stenography</td>
<td>3</td>
</tr>
<tr>
<td>Secretarial Training 10A, Business Correspondence</td>
<td>3</td>
</tr>
<tr>
<td>Social Science 1, Pol., Soc. and Econ. Problems</td>
<td>3</td>
</tr>
<tr>
<td>Speech Arts 1A, Fundamentals of Public Speaking</td>
<td>64</td>
</tr>
</tbody>
</table>

† Depending on result of Subject A test.
* See page 33.
### UPPER DIVISION

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics 11, Economic History of the United States</td>
<td>3</td>
</tr>
<tr>
<td>Economics 18A-18B, Commercial Law</td>
<td>6</td>
</tr>
<tr>
<td>Economics 100, Modern Economic Thought, or a course in Consumer</td>
<td></td>
</tr>
<tr>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>Economics 140, Statistical Methods</td>
<td>3</td>
</tr>
<tr>
<td>Economics 160A-160B, Advanced Accounting</td>
<td>6</td>
</tr>
<tr>
<td>Economics 161, Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Economics 163, Machine Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Education 21, Penmanship Methods</td>
<td>2</td>
</tr>
<tr>
<td>Education 116, Practice Teaching</td>
<td>6</td>
</tr>
<tr>
<td>Education 121, Principles of Secondary Education</td>
<td>3</td>
</tr>
<tr>
<td>Education 130, Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Education 160, Commercial Education</td>
<td>2</td>
</tr>
<tr>
<td>Education 163, Stenography</td>
<td>2</td>
</tr>
<tr>
<td>Education 164, Bookkeeping</td>
<td>2</td>
</tr>
<tr>
<td>Education 165, Typewriting</td>
<td>2</td>
</tr>
<tr>
<td>Geography 141, Economic Geography, or a course in Foreign Trade</td>
<td>3</td>
</tr>
<tr>
<td>Political Science 101, American Institutions (or substitute)</td>
<td>2</td>
</tr>
<tr>
<td>Psychology 1A, General</td>
<td>3</td>
</tr>
<tr>
<td>Secretarial Training 3A, Office Methods and Appliances</td>
<td>3</td>
</tr>
</tbody>
</table>

If the Secretarial subfield only is elected, Mathematics 2 and Education 164 and all upper division courses in accounting may be omitted, but 12 units in upper division courses in commerce must be included. If the accounting subfield is elected, Secretarial Training 5A-5B and Education 163, 165 may be omitted.

### LOWER DIVISION

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics 1A-1B, Principles</td>
<td></td>
</tr>
<tr>
<td>Economics 11, Economic History of the United States</td>
<td>3</td>
</tr>
<tr>
<td>Economics 14A-14B, Accounting</td>
<td>6</td>
</tr>
<tr>
<td>Economics 18A-18B, Commercial Law</td>
<td>6</td>
</tr>
<tr>
<td>English 1A, Freshman English, or elective</td>
<td>3</td>
</tr>
<tr>
<td>Geography 1, Elements (Natural Sciences)</td>
<td>3</td>
</tr>
<tr>
<td>Geography 2, Regions</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics 2, Mathematics of Investment</td>
<td>3</td>
</tr>
<tr>
<td>Merchandising 25A, Salesmanship</td>
<td>2</td>
</tr>
<tr>
<td>Merchandising 25B, Advertising</td>
<td>11</td>
</tr>
<tr>
<td>*Natural Sciences</td>
<td></td>
</tr>
<tr>
<td>Physical Education 1A-1B, 1C-1D (men), or 36A-36B, 38A-38B (women)</td>
<td>2</td>
</tr>
<tr>
<td>Secretarial Training A, Business Mathematics</td>
<td>1</td>
</tr>
<tr>
<td>Secretarial Training 1A-1B, Typewriting</td>
<td>6</td>
</tr>
<tr>
<td>Secretarial Training 10A, Business Correspondence</td>
<td>3</td>
</tr>
<tr>
<td>Social Science 1, Pol., Soc. and Econ. Problems</td>
<td>3</td>
</tr>
<tr>
<td>Speech Arts 1A, Fundamentals of Public Speaking</td>
<td>3</td>
</tr>
</tbody>
</table>

### UPPER DIVISION

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics 100, Modern Economic Thought, or a course in Consumer</td>
<td>3</td>
</tr>
<tr>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>Economics 135, Money and Banking</td>
<td>3</td>
</tr>
<tr>
<td>Economics 140, Statistical Methods</td>
<td>3</td>
</tr>
<tr>
<td>Economics 163, Machine Accounting</td>
<td>2</td>
</tr>
<tr>
<td>Education 21, Penmanship Methods</td>
<td>2</td>
</tr>
<tr>
<td>Education 116, Practice Teaching</td>
<td>6</td>
</tr>
<tr>
<td>Education 121, Principles of Secondary Education</td>
<td>3</td>
</tr>
<tr>
<td>Education 130, Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Education 160, Commercial Education</td>
<td>2</td>
</tr>
<tr>
<td>Education 161, Junior Business Training</td>
<td>2</td>
</tr>
<tr>
<td>Education 165, Typewriting</td>
<td>2</td>
</tr>
<tr>
<td>Geography 141, Economic Geography, or a course in Foreign Trade</td>
<td>3</td>
</tr>
<tr>
<td>Political Science 101, American Institutions (or substitute)</td>
<td>2</td>
</tr>
<tr>
<td>Psychology 1A, General</td>
<td>3</td>
</tr>
<tr>
<td>Secretarial Training 3A, Office Methods and Appliances</td>
<td>3</td>
</tr>
<tr>
<td>Electives (including a minimum of 5 units in the upper division)</td>
<td>17</td>
</tr>
<tr>
<td>3 units of which must be in commerce</td>
<td></td>
</tr>
</tbody>
</table>

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1 Depending on result of Subject A test.

* See page 34.
A.B. Degree With Special Credential in Music

This course leads to the A.B. degree with a Special Secondary Credential in Music which entitles the holder to teach music in senior high, junior high, and elementary schools.

LOWER DIVISION

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics 1A-1B, Survey of Music</td>
<td>4</td>
</tr>
<tr>
<td>Education 17, Music in the Elementary School (sophomore year)</td>
<td>2</td>
</tr>
<tr>
<td>English 1A, 1B, 2 or 3, Freshman and Sophomore English</td>
<td>7</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>6</td>
</tr>
<tr>
<td>Physical Education 1A-1B, 1C-1D (men); 36A-36B, 38A-38B (women)</td>
<td>14</td>
</tr>
<tr>
<td>Psychology IA, General (sophomore year)</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences, including Social Science 1, Political, Social and Economic Problems</td>
<td>14</td>
</tr>
<tr>
<td>Music for major (see below) and electives, including courses for an academic teaching minor</td>
<td>18 or 19</td>
</tr>
</tbody>
</table>

UPPER DIVISION

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics 102A-102B, History of Music</td>
<td>2</td>
</tr>
<tr>
<td>Education 116, Practice Teaching (at least 4 units in Music)</td>
<td>9</td>
</tr>
<tr>
<td>Education 121, Principles of Secondary Education</td>
<td>3</td>
</tr>
<tr>
<td>Education 127, Music in the Secondary School</td>
<td>2</td>
</tr>
<tr>
<td>Education 145, Org. and Adm. of Music Education</td>
<td>2</td>
</tr>
<tr>
<td>Political Science 101, American Institutions (or substitute)</td>
<td>2</td>
</tr>
<tr>
<td>Music for major (see below) and electives, including courses for an academic teaching minor</td>
<td>40</td>
</tr>
</tbody>
</table>

MUSIC

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1B, Music Reading and Ear Training</td>
<td>2</td>
</tr>
<tr>
<td>1C-1D, Music Reading and Ear Training</td>
<td>4</td>
</tr>
<tr>
<td>4A-4B, Elementary Harmony</td>
<td>6</td>
</tr>
<tr>
<td>105A-105B, Advanced Harmony</td>
<td>6</td>
</tr>
<tr>
<td>106A-106B, Applied Harmony</td>
<td>6</td>
</tr>
</tbody>
</table>

APPLIED MUSIC

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>16, 116, A, B, C, D, Orchestral Instruments (including 19 or 119, A and B, Instrumental Music)</td>
<td>6</td>
</tr>
<tr>
<td>17, 117, A, B, C, D, Voice (including 20A, 20B, Vocal Music)</td>
<td>6</td>
</tr>
<tr>
<td>18, 118, A, B, C, D, Piano</td>
<td>4</td>
</tr>
</tbody>
</table>

SUMMARY

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics</td>
<td>6</td>
</tr>
<tr>
<td>Education</td>
<td>18</td>
</tr>
<tr>
<td>English</td>
<td>6 or 7</td>
</tr>
<tr>
<td>Music major</td>
<td>40</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>14</td>
</tr>
<tr>
<td>Physical Education</td>
<td>2</td>
</tr>
<tr>
<td>Political Science 101, American Institutions</td>
<td>3</td>
</tr>
<tr>
<td>Psychology IA</td>
<td>14</td>
</tr>
<tr>
<td>Electives, including an academic teaching minor</td>
<td>18 or 19</td>
</tr>
</tbody>
</table>

1 See page 116.
2 Unless exempted by examination.
3 Maximum credit allowable in music for degree.
4 Depending on result of Subject A Test.
5 See Summary of Basic Requirements, page 33.
6 See Major and Minor requirements, page 34.
A.B. Degree With Special Credential in Physical Education

This course leads to the A.B. degree and to the Special Secondary Credential in Physical Education which entitles the holder to teach physical education in senior high, junior high, and elementary schools.

MEN

LOWER DIVISION

| Biol. Science 10A-10B, Science of Life (unless taken as a year course in high school with at least a grade of B) | 6 units |
| English 1A, 1B, 2 or 3, Freshman and Sophomore English | 6 or 7 units |
| Hygiene | 2 units |
| Natural Sciences | 7 units |
| Physical Education: 1A-1B, 1C-1D | 2 units |
| 6A, Tennis | 2 units |
| 30, Emergencies | 2 units |
| 62A, 62B, Gymnastic Activities | 2 units |
| 66, Playing Rules of Modern Games | 1 unit |
| 72, Principles | 2 units |
| Sports and Athletics | 1 unit |
| Psychology 1A, General (sophomore year) | 3 units |
| Red Cross Swimming Test | 3 units |
| Social Sciences, including Social Science 1, Political, Social and Economic Problems | 3 units |
| Speech Arts 1A, Fundamentals of Public Speaking | 3 units |
| Zoology 20, Anatomy and Physiology | 3 units |
| Electives, including courses to meet minor requirements | 7-8 units |

UPPER DIVISION

| Education 116, Practice Teaching | 6 units |
| Education 121, Principles of Secondary Education | 3 units |
| Education 125, Elementary School Curriculum | 3 units |
| Education, elective | 6 units |
| Physical Education: 131, Health Education | 2 units |
| 154, Organ. and Admin. of Physical Education | 2 units |
| 155, Applied Anatomy | 2 units |
| 156A-156B, Sports Methods | 2 units |
| 158, Technique of Officiating | 4 units |
| 168, Technique of Coaching Activities | 2 units |
| 171, Community Recreation | 2 units |
| 180, Theory of Coaching Football | 2 units |
| Sports and Athletics | 3 units |

* Depending on result of Subject A test.
* Men majoring in Physical Education must actively participate in three sports each year.
* Unless minor is English, general science, or social science.
† See Summary of Basic Requirements.

SUMMARY

| Political Science 101, American Institutions (or substitute) | 2 units |
| Psychology 102, Genetic (first semester, junior year) | 3 units |
| Zoology 114A, Genetics | 14 units |
| Electives | 60 units |
| Education | 18 units |
| English | 6 or 7 units |
| Hygiene | 1 unit |
| Speech Arts 1A | 3 units |
| *Natural Sciences (including Biol. Science 10A-10B or substitute and Zoology 20) | 14 units |
| Physical Education major | 35 units |
| Political Science 101, American Institutions | 2 units |
| Psychology | 6 units |
| **Social Sciences (including Social Science 1) | 14 units |
| Zoology 114A | 2 units |
| Electives, including academic teaching minor | 21-22 units |

* See page 33.
** See page 34.
A.B. Degree With Special Credential in Physical Education

This course leads to the A.B. degree and to the Special Secondary Credential in Physical Education which entitles the holder to teach physical education in senior high, junior high, and elementary schools.

**WOMEN**

**LOWER DIVISION**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics 1A, Survey of Music</td>
<td>2</td>
</tr>
<tr>
<td>Biol. Science 10A-10B, Science of Life (unless taken in high school)</td>
<td>6</td>
</tr>
<tr>
<td>English 1A, 1B, 2 or 3, Freshman and Sophomore English</td>
<td>6 or 7</td>
</tr>
<tr>
<td>Hygiene 2, Personal and Civic</td>
<td>2</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>5-7</td>
</tr>
</tbody>
</table>

**Physical Education**

- 38A, Rhythms, Formal Activities, Games
- 38B, Athletic Games
- 37, Games and Rhythms for the Elementary School
- 38B, Recreational Activities
- 55, Physical Education in the Elementary School
- 55A or 55B, Swimming—Beginning or Intermediate
- 55C, Life Saving
- 56, Tennis
- 57, Golf
- 59, Archery
- Psychology 1A, General
- Sociology 50, General
- Anthropology 54, Social
- *Social Sciences, including Soc. Science 1, Political, Social and Economic Problems
- Speech Arts
- Zoology 20, General
- Electives, including academic teaching minor

**UPPER DIVISION**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education 108, Educational Measurements</td>
<td>3</td>
</tr>
<tr>
<td>Education 110, Practice Teaching</td>
<td>6</td>
</tr>
<tr>
<td>Education 121, Principles of Secondary Education</td>
<td>3</td>
</tr>
<tr>
<td>Education 123, Elementary School Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>Education 106, Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>Education 140, Educational Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Education 142, Educational Sociology</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education: 102, Emergency and Safety Programs</td>
<td>1</td>
</tr>
<tr>
<td>151, Health Education</td>
<td>2</td>
</tr>
</tbody>
</table>

**WOMEN—Continued**

**UPPER DIVISION—Continued**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education—Continued</td>
<td></td>
</tr>
<tr>
<td>153, Administration of Secondary Physical Education</td>
<td>2</td>
</tr>
<tr>
<td>154, Applied Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>157A-157B, Sports Methods</td>
<td>1</td>
</tr>
<tr>
<td>158, Stunts and Tumbling</td>
<td>2</td>
</tr>
<tr>
<td>160, Formalized Activities</td>
<td>2</td>
</tr>
<tr>
<td>161, Folk Dancing</td>
<td>2</td>
</tr>
<tr>
<td>164, Dancing</td>
<td>3</td>
</tr>
<tr>
<td>169, Technique of Teaching Activities</td>
<td>2</td>
</tr>
<tr>
<td>170, Recreational Leadership</td>
<td>2</td>
</tr>
<tr>
<td>173, Principles</td>
<td>2</td>
</tr>
<tr>
<td>175, Current Problems</td>
<td>2</td>
</tr>
<tr>
<td>177, Individual Program Adaptations</td>
<td>3</td>
</tr>
<tr>
<td>185, Techniques of Individual and Dual Sports</td>
<td>2</td>
</tr>
<tr>
<td>Political Science 101, American Institutions (or substitute)</td>
<td>3</td>
</tr>
<tr>
<td>Psychology 102, Genetic (first semester, junior year)</td>
<td>3</td>
</tr>
<tr>
<td>Upper Division Zoology</td>
<td>3</td>
</tr>
<tr>
<td>Additional Course in Upper Division Zoology, or other subject for minor</td>
<td>3</td>
</tr>
</tbody>
</table>

**SUMMARY**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics</td>
<td>2</td>
</tr>
<tr>
<td>Education</td>
<td>18</td>
</tr>
<tr>
<td>English</td>
<td>6 or 7</td>
</tr>
<tr>
<td>Hygiene</td>
<td>2</td>
</tr>
<tr>
<td>*Natural Sciences (including Biological Science 10A-10B or substitute, and Zoology 20)</td>
<td>14</td>
</tr>
<tr>
<td>Physical Education major</td>
<td>38</td>
</tr>
<tr>
<td>Political Science 101, American Institutions</td>
<td>2</td>
</tr>
<tr>
<td>Psychology</td>
<td>6</td>
</tr>
<tr>
<td>**Social Sciences (including Social Science 1 and Sociology 50 or Anthropology 54)</td>
<td>14</td>
</tr>
<tr>
<td>Speech Arts</td>
<td>3-6</td>
</tr>
<tr>
<td>Zoology (upper division)</td>
<td>3-6</td>
</tr>
<tr>
<td>Electives, including academic teaching minor unless Zoology is chosen</td>
<td>12-16</td>
</tr>
</tbody>
</table>

1 If another subject is chosen the program must be arranged to include a total of 6 units of upper division work in that subject.

* See page 33.

** See page 34.
DIPLOMA OF GRADUATION

A diploma of graduation carrying with it any of the credentials the college is authorized to grant or any combination of them may be granted to the holder of a bachelor's degree from an accredited college, upon the completion of a minimum of 24 units. Ordinarily at least one semester of residence during the academic year is required subsequent to securing the degree; the remainder of the work may be in summer session or, in the case of students who had attended the college prior to attaining the degree elsewhere, in credit earned as an upper division student. The candidate for a diploma must offer the equivalent of all of the requirements listed in the curriculum for the A.B. degree with the credential or credentials sought.

ADMINISTRATION AND SUPERVISION CREDENTIALS
(Effective until September 1, 1936)

The State Board of Education has authorized this college to make recommendations for the issuance of School Administration and School Supervision credentials for holders of elementary and junior high school credentials who have completed the required 15 units beyond the requirements for the teaching credential and who have completed two years of successful teaching experience. But holders of general secondary credentials must take the required courses in and receive recommendation from an accredited graduate school, even though they may wish to qualify for administrative or supervisory work only on the elementary or junior high school level.

In order to secure the recommendation of this college for either one of these credentials, the following number of the 15 required units must be completed at this institution:
1. A.B. degree graduates of this college—6, subsequent to graduation.
2. Other graduates of this college—15.
4. County certified teachers—12.

Candidates desiring to qualify for administration and supervision credentials after September 1, 1936, will be required to meet the credential requirements as outlined in the State Department of Education Bulletin No. 12, Regulations Governing Granting of Credentials and Certificates for Public School Service in California. Further information will be furnished by the college upon request by the applicant.

DEGREE REQUIREMENTS

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS IN THE LIBERAL ARTS CURRICULA AND FOR THE JUNIOR CERTIFICATE

The liberal arts curricula lead to the bachelor of arts degree with majors in art, chemistry, commerce, economics, English, geography, history, mathematics, music, physical science, physics, Romance languages and zoology and qualify for graduate work in these fields in recognized American colleges and universities. Completion of the requirements of these curricula also enables the graduate to satisfy undergraduate requirements for the general secondary credential which, with graduate work, will enable the holder to teach in a senior high school or junior college.

Total Units, Length of Time, and Residence

The A.B. degree will be granted on the completion of 124 units of college work, representing a four-year course, and the junior certificate on the completion of 62 units. Certain requirements for the degree may be met by courses taken in the high school. No high school course, however, can be used to reduce the amount of college work required for the junior certificate or for the degree. Not less than 54 units must be earned in the junior and senior years; at least 30 units of work at this college; twenty-four of these residence units must be taken with the rank of senior, at least twelve of which must be taken in the fall or spring semester of the final year before graduation.

SUBJECT MATTER REQUIREMENTS IN THE LOWER DIVISION

<table>
<thead>
<tr>
<th>Subject</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education</td>
<td>2 units</td>
</tr>
<tr>
<td>Hygiene 1 or 2</td>
<td>2 units</td>
</tr>
<tr>
<td>English</td>
<td>6 units</td>
</tr>
<tr>
<td>Foreign Languages</td>
<td>15 units</td>
</tr>
<tr>
<td>Mathematics A and B or high school algebra and geometry</td>
<td>4-6 units</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>14 units</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>14 units</td>
</tr>
<tr>
<td>Year-course in foreign language or mathematics (in addition to the foregoing minimum requirements in foreign language and mathematics)</td>
<td>6 units</td>
</tr>
</tbody>
</table>

Lower division subjects for the minors, unless included in one of these requirements, see page 54.
Lower division subjects required for the major. See page 55.
Electives to make total of 62 units.

1. For definition of units see page 28.
Explanation of Lower Division Requirements

English: This requirement may be satisfied either in the freshman year or in the sophomore year. To be chosen from the following year-courses: English 1B-2 or 3, 4A-4B, 52A-52B, 56A-56B.

Foreign Languages: At least 10 units in not more than two languages are required in the lower division, except that only 10 units in a modern language are required in the commerce major. Each year of high school work in a foreign language will be counted in satisfaction of 3 units of this requirement. A minimum of two high school year-courses is acceptable in any language except Latin, in which a year-course is permissible.

Social Sciences: Fourteen units are required as follows:

(a) Social Science 1.

(b) Additional courses to meet the total requirement must be chosen from the following list and must include one of the year courses marked with an asterisk: Anthropology 50A-50B*, 51A-51B, 52, 53, 54, 55; Economics 1A-1B*, 11, 18A-18B; Geography 2; History 4A-4B*, 8A-8B*; Political Science 1A-1B*; Sociology 50.

Natural Sciences: Fourteen units are required as follows:

(a) Biological Science 1 or a year course in high school or college biology, botany, physiology or zoology.

(b) Physical Science 1 or a year course in high school or college chemistry or physics.

(c) Additional courses to meet the total requirement must come from the following list and must include one of the laboratory courses marked with an asterisk:

- High school botany, chemistry, physics, physiology, zoology, advanced biology. (A maximum of two years, 6 units, of high school courses offered exclusively in the third or fourth year may be used to meet the natural science requirement.)
- Astronomy 1, 11; Biological Science 1, 10A-10B*; Botany 2A*, 2B*, 4; Chemistry 1A*, 1B*, 5*, 7-8*, Geography 1 or 3 (only one course may be counted toward requirement); Geology 1A*, 1B*, Physical Science 1; Physics 1A-1B*, 2A-2B; 3A-3B*, 1A-1B*, 1C-1D*, Zoology 1A*, 1B*.

Mathematics: High school elementary algebra or Mathematics A and high school plane geometry or Mathematics B.

Additional Year Course: In addition to the foregoing minimum requirements in foreign language and mathematics, 6 units must be chosen from one of the following groups:

Modern Foreign Language: Any two consecutive college courses.

Latin: Two years of high school courses in Latin.

Mathematics: 1A-1B; 3A-3B; 7A-7B; C and 3A; G and 7A. Students with the Commerce major may take Mathematics C and G, or equivalents.

Philosophy: 5A-5B.

Minors: A minimum of 12 units in each of two minor subjects is required. At least 6 units in each minor shall be in upper division courses completed in the junior and senior years. The entire 12-unit requirement for a minor may be met with upper division courses provided these courses have no lower division prerequisites. The prerequisites for upper division courses in various departments may be found in the course descriptions on pages 66-123. Minors are available in the following subjects: art, botany, chemistry, economics, education, English, foreign language, geography, geology, history, mathematics, music, physics, political science, psychology, zoology. Information concerning a minor in education is to be found on page 62.

Major: The specific requirements for the degree in each major field are listed in the paragraphs following.

Electives: Among both elective and required subjects, a total of not more than 12 units of the applied and vocational courses listed below will be counted toward the junior certificate or the A.B. degree, in both the lower and upper division combined:

- Agriculture 20; Art 61A, 61B; Merchandising 24A-24B, 25A-25B, 26; all courses in education, except those listed as available for credit toward a minor (see page 62); Journalism 53A-53B, 153A-153B; Library Science 10; all courses in Applied Music; Physical Education, all courses except 1A-1B, 1C-1D, 3A-3B, 38A-38B, 39A-39B, 30, 72, 102, 161, 164; Secretarial Training, all courses.

Liberal Arts Majors—Lower Division Subjects

The student is advised to choose his major as early in his college course as practicable so that he may be able to plan his work according to the major requirements. Failure to meet the lower division requirements of the major department before the junior year may make it impossible to satisfy the upper division requirements within the normal period of two years.

Art

Eighteen units carefully chosen from lower division art courses to meet the stated prerequisites for upper division work. These shall include Art A-B, 6A-6B, or the accepted equivalents, and six elective units in art; Aesthetics 5, 50.

Chemistry

Chemistry 1A-1B with an average grade of C or better, Chemistry 5 or 7-8, Physics 2A-2B and 3A-3B or their equivalent, Mathematics 7A-7B or 7-8, Physics 2A-2B and 3A-3B or their equivalent, and a reading knowledge of German. Students planning to do graduate work in chemistry or to transfer to another college, planning to do graduate work in chemistry or to transfer to another college, are advised to take advanced college chemistry.

Commerce

Economics 1A-1B, 11, 14A-14B (6 units), 18A-18B; English 1B-2 or 3; Geography 1-2; Mathematics C and G, or equivalents, and 2; History 4A-4B or 8A-8B or Political Science 1A-1B.
Economics

Economics 1A-1B and at least one of the following: Political Science 1A-1B; History 4A-4B; History 5A-5B; Psychology 1A and 1B or 4A or 4B; Geography 1 and 2; Anthropology 50A-50B. Recommended: Sociology 50; Economics 14A-14B, 18A-18B.

English

English 1B-2 or 3 and six units from 52A, 52B, 56A, 56B. Recommended: A reading knowledge of German or French.

Foreign Languages

Group major: French A-B, C-D, and Spanish A-B, C-D. The group major requirements are based on the assumption that the student will have taken courses in the high school, equivalent to the college course in elementary French or Spanish.

Geography

Geography 1, 2, 3 and Geology 1A-1B. Recommended: A reading knowledge of French or German.

History

History 4A-4B, or 8A-8B, and either Political Science 1A-1B, Economics 1A-1B, or Geography 1 and 2. No student shall enroll in more than one lower division history course during a semester. Students who wish to major in history and who have had less than two years of European history in high school must take History 4A-4B.

Mathematics

Mathematics 3A-3B, 4A-4B. With permission of the department, 7A-7B may replace 3A-3B. Recommended: Physics, surveying, descriptive geometry, astronomy and a reading knowledge of French and German.

Music

Music 1A-1B, 4A-4B; and 2 units of electives in music; Aesthetics 1A-1B. The electives in music in both lower and upper division must include at least 6 units in Applied Music (study of voice, or an instrument) and a reading knowledge of French and German.

Physical Science

Fulfillment of the departmental requirements for upper division work in at least two of the following sciences: Chemistry, geology, physics. Recommended: A reading knowledge of French and German.

Physics

Physics 1A-1B-1C-1D, Mathematics 3A-3B, 4A-4B, and Chemistry 1A-1B, or their equivalents. Recommended: A reading knowledge of French and German.

Zoology

Zoology 1A, 1B, and high school chemistry or Chemistry 1A. Recommended: Chemistry 1B, French, German, Botany 2A, 2B, 4, and 5.

SUBJECT MATTER REQUIREMENTS IN THE UPPER DIVISION

Psychology 1A (unless elected in lower division) .............. 3 units
Political Science 101 ........................................... 2 units
First minor (minimum in upper division courses) ............. 6 units
Second minor (minimum in upper division courses) .......... 6 units
Major Electives to make a minimum total of 40 units in upper division courses and a grand total of 124 units for the degree.

Explanation of Upper Division Requirements

Required Number of Units in Upper Division Courses: At least 40 of the units completed during the junior and senior years, among required and elective subjects, shall be in upper division courses (see definition under heading Courses of Instruction); junior standing requires 60 units of credit. Introductory courses open to first-semester freshmen when taken in the junior or senior year may involve additional work or reduction in the number of units of credit.

Political Science 101: Political Science 113 or 152 or History 171A-171B or 173A-173B will be accepted as substitutes for this requirement.

Minors: See explanation regarding minor subjects on page 54.

Major: The specific requirements in each major field are listed in the paragraphs following.

Electives: See restrictions concerning the choice of applied and vocational courses, as explained on page 55.

Major Requirements in the Various Fields

Art

Not less than twenty-four units of upper division art. These shall include Art 112A, 115A-115B, 152A, 195, and twelve upper division elective units in art, and 2 units of upper division work in an allied subject. It is recommended that students in meeting degree requirements and in choosing free electives, select from the following courses: English 4A-4B, 106A-106B, 107A-107B, 117; French A-B; History 4A-4B, 111A-111B.

Chemistry

A minimum of twenty upper division units in chemistry including Chemistry 110A-110B and 111A-111B. The choice of a related minor and the organization of the course of a major student must follow a definite plan approved by the department.
Commerce

Economics 121, 140, 180, and 16 units additional chosen in one of the following groups:

A. Accounting: Econ. 160A-160B, 161, 103, and 4 units in electives in economics.
B. Banking and Finance: Econ. 133, 134, 135, and 7 units in electives in economics.
C. Marketing and Merchandising: Econ. 123, 125, 171, and 7 units in electives in economics.

Geog. 141 may be used in the electives under A, B, C.

Economics

Required: Economics 100, 140 and 199, with 7 units selected from the following: Economics 121, 123, 127, 132, 103, 134, 135, 152, and 171.

Electives: Nine upper division units in economics. Economic geography may be substituted for three elective units in economics.

English

Twenty-four units in upper division English to be selected and arranged under supervision of the department. Not over four units may be in composition. A reading knowledge of German or French.

Foreign Languages

Twenty-four units of upper division work in French and/or Spanish; or eighteen units in French and/or Spanish, and six units in related subjects, arranged in consultation with the chairman of the department. At least a C average in all courses. Recommended: Geography 118.

Geography

Twenty-four units of upper division work in geography or 18 units in geography and six units in related subjects arranged in consultation with the chairman of the department.

History

Twenty-four units in upper division courses in history to be arranged in consultation with the chairman of the department. The student must, in his senior year, enroll in History 109.

Mathematics

Twenty-four units of upper division work in mathematics, or eighteen units in mathematics and six units in closely related subjects, arranged in consultation with the chairman of the department. Mathematics 111, 112, and 119 should be included in every major. Related courses offered by other departments include statistical methods (Economics 140), mathematics in the junior high school (Education 112) and certain upper division courses in chemistry and physics.
PREPROFESSIONAL CURRICULA

As shown below, the liberal arts curricula can be adapted to correspond to the typical courses of study preliminary to the professional courses of training for law, medicine, dentistry, nursing, optometry, pharmacy, social service, teaching, journalism, agriculture, and engineering. (For a complete statement of the requirements for the junior certificate and the degree in these curricula, see pages 53-59.

Prelegal Curriculum
(Two-Year, Three-Year and Four-Year Curricula)

(a) The entrance requirements of law colleges range from two years to three and four years of prelegal work. The lower division requirements of the liberal arts curricula should be met in full whether the curriculum extends over a period of two, three or four years.

(b) The following lower division electives meet the recommendations of standard American law colleges for a broad and liberal education in those fields of human knowledge commonly involved in human affairs and those which have cultural and disciplinary values. Liberal arts subjects similar to subjects offered in law colleges should ordinarily be omitted from the prelegal curricula. History 4A-4B, 6 units; Economics 1A-1B, 6 units; Economics 14A-14B, 6 units; Sociology 10, 3 units; Political Science 1A-1B, 6 units; Speech Arts 1B, 3 units; English 52A-52B, 6 units; Psychology 1A, 3 units; Psychology 4A, 2 units; Philosophy 5A-5B, 6 units.

(c) The three-year prelegal curriculum requires the completion of 93 units of work. Some of the introductory courses should be continued in the upper division if the student is to acquire mastery and confidence in any field. The following are listed as examples of upper division courses that meet the needs of general study in the three-year or the four-year curriculum. History 111A-111B, 6 units; History 151A-151B, 6 units; History 171A-171B, 6 units; Economics 121, 3 units; Economics 133, 3 units; Economics 151, or 100, 5 units; Economics 171, 3 units; Political Science 111, 3 units; Political Science 113, 3 units; Speech Arts 101B, or 1B, 3 units; Philosophy 120, 3 units.

(d) The four-year curriculum requires the completion of 124 units of work. A student who is pursuing a four-year prelegal curriculum must major in a specific field in his junior and senior years and must meet all upper division requirements for the A.B. degree in the liberal arts curricula.

Premedical Curriculum
(Two-Year, Three-Year and Four-Year Curricula)

(a) The entrance requirements of medical colleges range from two years to three and four years of premedical work. The lower division requirements of the liberal arts curricula should be met in full whether the curriculum extends over a period of two, three or four years.

(b) The program of elective and required subjects in the lower division should include the following subjects: Zoology 1A-1B, 8 units; Chemistry 1A-1B, 10 units; English 1A-1B, 2 or 3, 6 units; French or German, 9 units (this requirement may be met in lower division); Zoology 100, 4 units (this upper division subject should be taken in the sophomore year only when necessary to satisfy medical college requirements requiring only two years of premedical work).

(c) The three-year premedical curriculum requires the completion of 93 units of work. The program in the upper division of either the three-year or the four-year curriculum should include the following subjects: Physics 2A-2B, 6 units; Physics 3A-3B, 6 units; Psychology 1A, 3 units; Sociology 10, 3 units; Chemistry 107-108, 7 units; Zoology 160, 4 units.

(d) The four-year curriculum requires the completion of 124 units of work. A student who is pursuing a four-year premedical curriculum should major in chemistry or zoology in his junior and senior years and must meet all upper division requirements for the A.B. degree in the liberal arts curricula.

Predental Curriculum
(One-Year Curriculum)

The following subjects should be taken to qualify for entrance to dental colleges requiring only one year of preclinical work. The one-year curriculum requires the completion of 31 units of work. English 1B-2, 3 units; Chemistry 1A-1B, 10 units; Zoology 1A-1B, 8 units; Social Science 1, 3 units; Physical Education 1A-1B or 30A-30B, 1 unit; Electives, 3 units.

(Two-Year Curriculum)

(a) The lower division requirements of the liberal arts curricula should be met in full to satisfy dental colleges requiring two years of preclinical work.

(b) The program of elective and required subjects in the lower division should include Chemistry 1A-1B, 10 units; Chemistry 7-8, 6 units; Zoology 1A-1B, 8 units; and English 1B-2 or 3, 6 units.

Prenursing Curriculum
(Two-Year Curriculum)

(a) The lower division requirements of the liberal arts curricula should be met in full.

(b) The program of elective and required subjects in the lower division should include Chemistry 1A-1B, 10 units; Economics 1A-1B, 6 units; Psychology 1A-1B, 6 units; Zoology 20 (Anatomy and Physiology), 6 units; Bacteriology 1 (General Bacteriology and Microbiology), 6 units; (It is planned to increase the unit value of Zoology 20 as soon as possible to meet completely the California requirements for a junior certificate in prenursing.)
Preoptometry Curriculum  
(Two-Year Curriculum)
(a) The lower division requirements of the liberal arts curricula should be met in full.
(b) The program of elective and required subjects in the lower division should include Chemistry 1A-1B, 10 units; English 1B-2 or 3, 6 units; Mathematics 7A, or equivalent, 4 units; Physics 2A-2B, 6 units; Physics 3A-3B, 2 units; Psychology 1A, 3 units; Zoology 20, 3 units.

Prepharmacy Curriculum  
(Two-Year Curriculum)
(a) The lower division requirements of the liberal arts curricula should be met in full.
(b) The program of elective and required subjects in the lower division should include Chemistry 1A-1B, 10 units; Botany 2A-2B, 8 units; German A-B, 10 units; Mathematics D, 1 unit, or equivalent; Mathematics C, 2 units, or equivalent; Chemistry 5, 3 units; Chemistry 105, 3 units; Chemistry 7-8, 6 units; Physics 2A-2B, 6 units; Physics 3A-3B, 2 units; English 1B-2 or 3, or Speech Arts 1A-1B, 6 units.

Presecondary Curriculum  
(Four-Year Curriculum)
Completion of the requirements of this curriculum enables the graduate to satisfy the undergraduate requirements for the general secondary teaching credential, which, with graduate work, will enable the holder to teach in a senior high school or junior college.
(a) The lower division requirements of the liberal arts curricula should be met in full.
(b) This curriculum requires the completion of 124 units of work. In arranging his program to meet the upper division requirements for the A.B. degree in the liberal arts curricula, the student should include a major in a subject or field of subjects usually taught in high school and a minor in the field of education chosen from the following courses: Ed. 121, *Principles of Secondary Education; Ed. 106, Philosophy of Education; Ed. 107, *History of Education; Ed. 137, Comparative Education; Ed. 130, *Educational Psychology; Ed. 140, Elementary Educational Statistics; Ed. 142, Educational Sociology; Psychology 102, *Psychology 102, *Genetic. In order to conform to the usual university requirements, this minor should include the courses marked with an asterisk.

Curricula Preliminary to Social Service  
(Two-Year and Four-Year Curricula)
(a) The lower division requirements of the liberal arts curricula should be met in full whether the curriculum extends over a period of two years or four years.
(b) The program of elective and required subjects in the lower division should include Social Science 1, 3 units; Sociology 50, 3 units; Economics 1A-1B, 6 units; Speech Arts 1A, 3 units; Speech Arts 1B, 3 units; Biological Science 10A-10B, or Zoology 1A, 6 or 4 units; Psychology 1A, 3 units; Psychology 4A, 2 units; Anthropology 54, 3 units; Mathematics D, or equivalent, 1 unit; Mathematics C, or equivalent, 2 units.
(c) The four-year curriculum requires the completion of 124 units of work. A student who is pursuing a four-year curriculum preliminary to social service must major in a specific field in his junior and senior years and must meet all upper division requirements for the A.B. degree in the liberal arts curricula.
(d) The program of elective and required subjects in the upper division should include as many of the following subjects as possible: Economics 134, 3 units; Economics 151, 3 units; Economics 140, 3 units; Education 140, 3 units; Education 106, 3 units; Education 170, 3 units; Education 130, 3 units; History 163, 3 units; History 171A-171B, or 173A-173B, 6 units; Physical Education 30, or 102, 1 unit; Physical Education 151, 2 units; Physical Education 171, or 170, 2 units; Psychology 102, 3 units; Psychology 118, 2 units; Psychology 145, 3 units; Political Science 152, 3 units.

Courses in social work offered by the college, summer session, or extension division should be chosen upon the recommendation of the faculty adviser for the social service curricula.

Curricula Preliminary to Journalism
A broad, cultural education, and specific information and understanding in fields with which the journalist is largely concerned, are essential to an effective training for journalism.

(Two-Year and Four-Year Curricula)
(a) The two-year and four-year curricula demand the completion of the lower division requirements of the liberal arts curricula in full.
(b) The program of elective and required subjects in the lower division should include the following subjects: History 4A-1B, or 5A-5B, 6 units; Economics 1A-1B, 6 units; Political Science 1A-1B, 6 units; English 1B-2 or 3, 6 units; French or German, 9 units (this requirement may be satisfied by one of the above courses); Journalism 51A, 51B, 6 units; Journalism 53A-53B, 2-6 units.
(c) A student who desires to build a broad foundation for graduate work in journalism is required to complete 124 units of work. He must major in journalism and must meet all upper division requirements for the A.B. degree in the liberal arts curricula.
(d) The program of elective and required subjects in the upper division should include as many of the following subjects as possible: English 190A-190B, 6 units; English 106A-106B, or 107A-107B, 4 units; English 140A-140B, 6 units; Economics 100, 3 units; History 145A-145B, or 146A-146B, 6 units; History 171A-171B, or 173A-173B, 6 units; Political Science 111, 3 units; Journalism 153A-153B, 2-6 units.
Preagricultural Curricula

(a) The two-year curricula require the completion of 66 units of work for junior standing in recognized colleges of agriculture.
(b) Requirements of the curriculum in plant and animal sciences: Chemistry 1A-1B, 10 units; Chemistry 7-8, 6 units; Botany 2A-2B, 8 units; Physics 2A-2B, 6 units; Zoology 1A-1B, 8 units; Geology 1A, 4 units; English 1B-2 or 3, or Speech Arts 1A-1B, 6 units; Economics 1A-1B, 6 units; Botany 7, 2 units; Social Science 1, 3 units; Hygiene 1 or 2, 2 units; Physical Education, 2 units; Mathematics A, B, C, D, 7 units, or equivalents; electives, to make a total of 66 units of work. The summer course in Bacteriology 1 (General Bacteriology and Microbiology), 4 units, is recommended.

(c) Requirements of the curriculum in forestry: Chemistry 1A-1B, 10 units; Botany 2A-2B, 8 units; Botany 7, 2 units; English 1B-2 or 3, or Speech Arts 1A-1B, 6 units; Mathematics 1A-7B, 8 units; Surveying 1A-1B, 6 units; Physics 2A-2B, 6 units; Geology 1A, or Geography 1, 4 or 3 units; Economics 1A-1B, 6 units; Social Science 1, 3 units; Hygiene 1 or 2, 2 units; Physical Education, 2 units; electives, to make a total of 66 units of work.

Preengineering Curricula

(a) The following list of subjects meets the requirements for the first year of a four-year curriculum in civil engineering, mechanical engineering, electrical engineering, or mining engineering: Mathematics 3A-3B, 6 units; Chemistry 1A-1B, 10 units; Physics 1A-1B, 6 units; English 1B, 5 units; Physical Education, 1 unit; elective, 3 units.
(b) The following list of subjects partially meets the requirements for the second year of a four-year curriculum in civil engineering, mechanical engineering, and electrical engineering: Mathematics 4A-4B, 6 units; Physics 1C-1D, 6 units; Surveying 1A, 3 units; Industrial Arts 21, 3 units; Industrial Arts 23, 2 units; Geology 1A, 4 units; Physical Education, 1 unit.
(c) Additional requirements in civil engineering: Industrial Arts 25, 3 units; Industrial Arts 28, 3 units; Surveying 1B, 3 units; Surveying 3, 1 unit.
(d) Additional requirements in mechanical and electrical engineering: Industrial Arts 22, 3 units; Mathematics 124 or 119, 3 units.

SPECIAL JUNIOR COLLEGE CURRICULA

Information relating to special junior college curricula such as aeronautics mechanics, commerce, etc., may be secured in a separate bulletin.

COURSES OF INSTRUCTION

Figures in parentheses indicate the unit value of the course.

Courses numbered from 1 to 99 are lower division (freshman or sophomore) courses; those numbered 100 and above are upper division (junior or senior) courses.

Freshmen are not admitted into upper division courses. First semester sophomores who have an average grade of not less than 2.0 grade points and second semester sophomores who have an average grade of not less than 1.5 grade points may enroll in an upper division course provided they were registered in at least 12 units in the preceding semester. It is understood that ordinarily the instructor will be consulted by sophomores wishing to take upper division courses. In such cases an upper division course will count as lower division credit.

One “unit” represents an hour recitation or lecture, together with the required preparation, or three hours laboratory work each week for a semester of 18 weeks.

The semester for offering courses is designated as follows: (1) Fall; (2) Spring; (3) Fall and Spring; (4) Year course, beginning either Fall or Spring, (5) Year course. Courses designated as “Year course” begin in the Fall, but those given in the list below may be taken in the reverse order (i.e., the second semester of the course may be taken before the first semester) or the second semester of the course may be taken alone. In the case of other year courses, students who have completed the equivalent of the first semester's work may seek permission from the instructor to take the second half of the course. Single semester courses having the letter B as a part of the number (as for example, Art 611B) are not supposed to follow another course of the same number unless so indicated in the prerequisites to the course.

YEAR COURSES OPEN TO REGISTRATION IN THE MIDDLE OF THE YEAR

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Units</th>
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<tr>
<td>Aesthetics 1A-1B</td>
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<td>Aesthetics 102A-102B</td>
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<td>Anthropology 50A-50B</td>
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<td>Anthropology 51A-51B</td>
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<td>Economics 18A-18B</td>
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<td>Economics 160A-160B</td>
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<td>English 4A-4B</td>
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<td>English 52A-52B</td>
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<td>English 56A-56B</td>
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<td>French 101A-101B</td>
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<td>Spanish 111A-111B</td>
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<td>Spanish 155A-155B</td>
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<td>Spanish 156A-156B</td>
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<td>Spanish 55C-55D</td>
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<td>Speech Arts 1A-1B</td>
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<td>Speech Arts 4A-4B</td>
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<td>Speech Arts 55C-55D</td>
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<td>Speech Arts 55E-55F</td>
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<tr>
<td>Speech Arts 65A-65B</td>
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</table>

Spanish 110A-110B |      |
History 4A-4B |      |
History 55A-55B |      |
History 65A-65B |      |
History 65A-65B |      |
History 65A-65B |      |
History 65A-65B |      |
History 65A-65B |      |
Although the College fully expects to carry out the arrangements planned in the list of courses, it reserves the right to make changes. Classes in the courses listed in which the enrollment does not come up to the minimum number set by the State Department of Education may not be offered or may be postponed for a semester or a year.

AESTHETICS

LOWER DIVISION COURSES

1A-1B. Survey of Music. Correlation of music and other arts. Designed to stimulate enjoyment of music by developing intelligent listening. The elements of music, its structure, folk music of all countries, musical instruments, and the contributions of the best known composers, with some biographical study of these men. Compositions are presented by orthophonic recording and by class members. Attendance at a number of local concerts is required. No previous musical training or background is necessary. Music majors are required to complete additional assignments for full credit.

Year course (2-2).

5. Fundamentals of Art. Jackson
An illustrated lecture course involving a study of aesthetic meaning and its relation to the structure of art products. Designed to increase both understanding and appreciation of the visual world in general and of the fine arts in particular.

Fall and Spring (2).

50. Appreciation and History of Art. Jackson
A survey of aesthetic development as revealed in the painting, sculpture, architecture, and handicrafts from dawn of art to the Renaissance. Illustrated.

Fall (3).

UPPER DIVISION COURSES

102A-102B. History of Music. The various movements in the development of music as related to other arts. The chronological development of the art of music, with particular emphasis on the larger works. Considerable attention is given to the work of modern composers. Many symphonic works are studied from the orchestral scores. Music majors are required to complete additional assignments for full credit. Prerequisite: Aesthetics 1A-1B. Previous study of harmony and instrumentation is desirable.

Year course (1-1).

150. Appreciation and History of Art. Jackson
The period from the Renaissance through the modern school, treated in the same manner as in Aesthetics 50.

Spring (2).

AGRICULTURE

SKILLING Sciences, may be woven into a nature study course suitable for children, with special reference to school and home gardening and agriculture. The subject matter covered is partly drawn from the physical sciences, astronomy, physics, etc. (for the upper grades), and partly from life studies of the plant and animal world (for lower grades). May be credited as natural science only for students majoring in Education.

Fall and Spring (3).

ANTHROPOLOGY

LOWER DIVISION COURSES

50A-50B. Man's Evolutionary History. Rogers

Year course (3-3).

51A-51B. The American Indian. Rogers
Pre-Columbian cultures of the American Indian. The origin and migration of New World peoples. Industries, arts, crafts, social organization, religion and other phases of American Indian civilization. The first semester presents a general introduction to New World culture with especial attention to the tribes north of Mexico, while the second semester is concerned primarily with the civilizations of Mexico, Central and South America.

Year course (3-3). (Offered in 1936-1937 and alternate years.)

52. Primitive Cultures (Ethnology). Rogers
History and cultural development of primitive races of mankind. Consideration given to industries, arts, social organization, and religion of living primitive peoples.

Fall (3). (Offered in 1937-1938 and alternate years.)

53. Primitive Religious Culture. Rogers

Spring (3). (Offered in 1937-1938 and alternate years.)

54. Social Anthropology. Rogers
An anthropological study of social institutions in primitive and civilized societies. The evolution of family organization, religion, property, right, and government traced in elementary and advanced civilisation. Ritualism and education considered as processes of culture conservation and social control.

Fall and Spring (3).

55. Culture History. Rogers
The prehistoric and historic development of culture types contributing to Western European and American civilization of to-day. Egyptian, Indoeuropean, and Oriental cultures examined in light of their Semitic, Indo-European, and Oriental cultures examined in light of their
ART

Candidates for a teaching credential in art should refer to the statement "Admission to Upper Division Teaching Training" on page 32.

Lower division preparation for the liberal arts major in art and for the junior certificate: Eighteen units carefully chosen from lower division art courses to meet the stated prerequisites for upper division work. These shall include Art A-B, 6A-6B, or the accepted equivalents, and six elective units in art. Aesthetics 5, 50.

Liberal arts major (upper division): Not less than twenty-four units of upper division art. These shall include Art 112A, 115A-115B, 152A, 195, and twelve upper division elective units in art, and two units of upper division work in an allied subject.

It is recommended that the students in meeting degree requirements and in choosing free electives, select from the following courses: English 4A-4B, 105A-106B, 107A-107B, 117; French A-B; History 4A-4B; 111A-111B.

For courses in Appreciation and History of Art and Fundamentals of Art, see Aesthetics, page 66.

LOWER DIVISION COURSES

Art Appreciation

8. Appreciation of Costume and Home Furnishing. BORSUM

Design and materials of modern dress; relation to the figure and personality; suitability and expressiveness. Principles underlying the use of materials and furnishings in the home; harmony of color, proportion, texture, and arrangement. Lectures, discussion, and demonstrations.

Fall (2).

Design

6A. Structure. BORSUM

Fundamentals of design and composition and theory of color. Basic course used as a prerequisite for all advanced art work.

Fall and Spring (2).

6B. Structure (continued) BORSUM

Original work in creative design with special stress on modern tendencies. Prerequisite: Art 6A.

Fall and Spring (2).

7. Line, Color and Display. BORSUM

The principles of line, color and arrangement applied to merchandise and to store and window display. Prerequisite: Art 6A.

Spring (3).

11A. Industrial Design. HAMANN

Original design in its relationship to various fields—ceramics, furniture, textiles, jewelry, and books. A survey and study of materials and processes in machine and hand production. Prerequisite: Art 6A-6B.

Fall (2).

11B. Advanced Industrial Design. HAMANN

Advanced problems with emphasis upon the related factors of material and production. Application of problems designed. Prerequisite: Art 6A-6B, 11A.

Spring (2).

14A. Lettering. BORSUM

Fundamental art principles applied to lettering. Practice for quick, accurate lettering; original problems using letters as design. Prerequisite: Art 6A.

Fall (2).

14B. Posters and Commercial Art. BORSUM

The application of lettering to posters, newspaper and magazine advertising, and other forms of commercial art. The study of composition combined with lettering and special study of modern tendencies in publicity. Prerequisites: Art 6A, 14A.

Spring (2).

52A. Stage Design. PATTERSON

Theory of line, color, and lighting in relation to the stage. Original sets and costumes developed on a miniature stage. Study of the development of the modern art of the theater. Upper division credit will be given in this course to students of junior standing upon the completion of extra theme work and additional original problems. Prerequisite: Art 6A.

Fall (2).

94. Costume Design. PATTERSON

Original problems in designing modern costumes. A study of line, color, texture, type, and suitability to the wearer and to the occasion; foreign and historic influence on dress. Prerequisite: Art 6A.

Fall (2).

Drawing, Painting, and Sculpture

A-B. Freehand Drawing HAMANN

Semester I: Problems involving perspective to develop ability to draw still life, furniture, exteriors, interiors, and the like.

Semester II: Outdoor sketching of landscape and figure, and studio work from still life and costume pose. Emphasis on composition and technique in the handling of various mediums, pencil, pen and ink, charcoal, pastel, and water color.

Year course (2-2).

15A-15B. Life Drawing. HAMANN

Drawing from the nude model. Does not duplicate the former course in painting, numbered Art 15A-15B.

Year course, beginning either Fall or Spring (2-2).

16A-16B. Painting. HAMANN

Semester I: Composition of still life and flower forms in water color.

Semester II: Landscape and more advanced composition in water color.
Prerequisite: Art A-B. No credit for students having completed Art 15A-15B, Painting.
Year course, beginning either Fall or Spring (2-2).

17A-17B. Sculpture.
Problems in clay modeling and in wood and stone carving, including original design and anatomical studies of the human figure. Particular stress laid on the qualities of materials as related to art form.
Year course, beginning either Fall or Spring (2-2).

61A. Elementary Crafts.
Problems in elementary craft work, bookbinding, pottery, weaving, and puppetry (including the dramatization and production of a puppet play).
Prerequisite: Art 6A, when possible.
Fall and Spring (2).

61B. Elementary Crafts.
Problems involving the application of design principles to various fields—pottery, textiles, weaving, metal works, wood-carving, and bookbinding. Prerequisite: Art 6A.
Fall and Spring (2).

UPPER DIVISION COURSES

106A-106B. Advanced Design.
Advanced problems in design, color and technique. Planned for students interested in commercial design, illustration and industrial design.
Prerequisites: Art A, 6A-6B; Aesthetics 5.
Year course (2-2).

112A-112B. Organization.
Imaginative organization of space by means of color, dark and light, perspective, and textures of various materials. Prerequisites: Art A-B, 6A-6B, and if possible 15A-15B or 106A.
Year course (2-2).

112C. Illustration.
Composition fulfilling the requirements of book illustration from poetry, imaginative tales, and legends, in black and white and color. Prerequisite: Art 112A.
Spring (2). (Offered in odd-numbered years.)

152A. Stage Design.
See Art 52A.

152B. Stage Costume.
Costume studied in relation to drama, opera and dance. Original designs for mood and character. Practical problems in designing costumes and accessories for college productions. A brief history of costume from the Egyptian to the modern time. Prerequisites: Art 6A, 52A or 152A.

House planning and landscaping. Designing furniture and interiors. Study of period styles and modern decoration. Illustrated lectures and original problems. Prerequisites: Art A, 6A.
Spring (2).

Drawing, Painting, and Sculpture

115A-115B. Life Drawing and Painting.
Drawing and painting from nude and costume models.
Year course, beginning either Fall or Spring (2-2).

115C-115D. Advanced Life.
Painting from nude and costume models and advanced composition in oil. Portraiture. Prerequisite: Art 115A-115B.
Year course, beginning either Fall or Spring (2-2).

Painting in water-color and oils from still life and landscape, stressing composition and technique. Prerequisite: Art 16A-16B.
Year course, beginning either Fall or Spring (2-2).

117A-117B. Sculpture.
See Art 17A-17B.

ASTRONOMY

Lower division preparation in astronomy for advanced work and for the junior certificate: Astronomy 1, Plane Trigonometry. Mathematics 3A-3B, 4A-4B, Physics 2A-2B and 3A-3B, or 1A-1B and 1C-1D; a reading of the solar system and the stars. Only calculations of an elementary knowledge of French or German.

1. Descriptive Astronomy.
A cultural course planned to give as comprehensive a view as possible of astronomy. Special attention to the methods and instruments by means of nature. A six-inch Alvin Clarke telescope used for observation. Demonstrations given with a large spectrometer; also a good selection of lantern slides used to illustrate various topics. Prerequisites: Elementary algebra and plane geometry.
Fall and Spring (3).

The principles of spherical trigonometry and astronomy adapted to the needs of engineering students. Computing. Prerequisites: Surveying 1A, Surveying 1B to be taken concurrently.
Spring (1).

The leading facts now known in astronomy in the light of circumstances attending their discovery. Prerequisite: Astronomy 1.
Spring (3).
Skilling
Stars and nebulae. Modern methods and instruments used in the observatory. Theory of matter as it applies to such studies. Prerequisites: Astronomy 1 and a knowledge of physics.
Fall (3).

BIOLOGICAL SCIENCES
(General Biological Science, Botany, Zoology)

General students who wish to take only one or two courses in this department should register for Biological Science 1, 10A-10B, Zoology 113C, 114A or 114B, Botany 4 or 5 (see below for prerequisites for each course).

Lower division preparation in botany for advanced work and for the junior certificate: Botany 2A, 2B, 4, 5, and Chemistry 1A.

Lower division preparation for the liberal arts major in zoology and for the junior certificate: Zoology 1A, 1B, and high school chemistry or Chemistry 1A-1B. Recommended: German, French, Botany 2A, 2B, 4.

Liberal arts major in zoology: (1) At least a C average in upper division major courses. (2) Twenty-four units of upper division courses in zoology or eighteen in the major subject and six in related courses in botany, organic chemistry, physics, physiology, and bacteriology.

Students preparing to teach science in the junior high school should try to include courses in zoology, botany, physics, chemistry (at least high school chemistry), and Education 120. The following are also desirable: geography, geology, anthropology, astronomy, and upper division biological sciences.

Fees: A fee is required in all laboratory courses in this department. The fee covers the cost of materials used. For breakage and extra material in addition to the estimated need an extra charge must be made.

LOWER DIVISION COURSES

1. Man and His Biological World. M. E. Johnson

A general biology course with lectures, discussion, and demonstrations three hours a week. For students who are not required to take Biological Science 10A-10B and who prefer a shorter course with no laboratory work. Not open to students who have taken 10A-10B or any combination of Zoology 1A-1B or high school zoology with Botany 2A-2B or high school botany. Students who have credit for this course and later elect 10A-10B receive 4 units of credit for 10A-10B instead of 6.

Spring (3).

10A-10B. Science of Life. Lectures: M. E. Johnson

Laboratory: Crouch, Harvey

The fundamentals of plant and animal biology, with a laboratory work lectures and includes a study of living and preserved material. Aim of Designated not only to give the general student an acquaintance with living things and their relationships, but also to furnish the prospective teacher with an adequate background for nature study teaching. Two lectures and one three-hour laboratory period per week. Designed for those who do not expect to specialize in zoology or botany, but not open for credit to students who have taken Zoology 1A, or Botany 2A. Students who have taken 10A-10B may elect Zoology 1B or Botany 2A, 2B for credit.

Year course (3-3).

199. Special Study.
Reading or work other than is outlined in the regular courses. (Bacteriology 1, General, and 102. Advanced Bacteriology, or 103. Current Problems in Hygiene and Bacteriology, are offered in the summer session.) Admission only by consent of the instructor with whom the work is to be done and the chairman of the Biological Science department. Credit and hours to be arranged in each case. Open to students who have completed at least 6 units of bacteriology with grades of A or B.

BACTERIOLOGY

LOWER DIVISION COURSES

2A. General.

Fundamentals of structure and general behavior of seed plants. Two lectures or recitations and two three-hour laboratory periods per week.

Fall (4).

2B. General.

A continuation of 2A treating morphology and relationship of the lower plants and including an introduction to classification of seed plants. Lectures and laboratory as in 2A.

Spring (4).

4. California Plants

Classification and ecology of representative orders of wild flowers, trees, chaparral of the San Diego region, including practice in the use of and occasional Saturday field trips.

Spring (2).

7. Plant Physiology.

The activities of plants, including food manufacture, absorption, conduction, transpiration, respiration, growth, and movement. Two lectures per week. Prerequisite: Biol. Science 10A-10B or Botany 2A.

Fall (4). (Offered in even-numbered years.)

UPPER DIVISION COURSES

102. Plant Geography.

Lectures and field work on the principles of geographical distribution of plants. Prerequisite: Botany 2A-2B, or 4, or equivalent.

Fall (2). (Offered in odd-numbered years.)

104. Taxonomy.

Identification, classification and distribution of representative orders
112. Marine Zoology. M. E. JOHNSON

Designed to acquaint the student with the many interesting animals found along the beaches in the San Diego region. Identification, distribution, associations, structure, and to some extent, behavior and life histories of the organisms. Frequent collecting trips to the beach and study of the living animals in the laboratory. Prerequisite: A laboratory course in elementary biology or zoology.

Fall (3). (Offered in odd-numbered years.)

113B. Ornithology. CROUCH

The study and identification of birds, especially those of the Pacific coast and the San Diego region. Six hours per week of lectures, laboratory, or field excursions. Prerequisite: Zoology 1B, or Biol. Science 10B.

Spring (3). (Offered in odd-numbered years.)

113C. Field Study of Birds. CROUCH

The study and identification of the birds of the San Diego region.

Three hours of laboratory or field work per week.

Spring (1). (Offered in even-numbered years.)

114A. Genetics. HARWOOD

General introductory course designed to acquaint the student with the fundamental principles of heredity and variation. Special attention given to the Mendelian interpretations of the facts of inheritance. Two lectures per week.

Fall (2).

114B. Evolution. JOHNSON

The development of theories of evolution. Two lectures or discussion periods per week.

Spring (2). (Offered in odd-numbered years.)

121. Entomology. HARWOOD

The classification, life history, structure, and physiology of insects. Prerequisite: Zoology 1A or Biol. Science 10B. Two hours of lecture and six hours of laboratory per week.

Spring (4). (Offered in odd-numbered years.)

130. Readings in Biology. HARWOOD

Readings from a suggested bibliography with informal class discussion of topics. Subjects discussed will include history of biology, biological principles, ecology, economic zoology, zoogeography, breeding habits, animal behavior.

Spring (2). (Offered in even-numbered years.)

199. Special Study. INSTRUCTORS OF THE DEPARTMENT

(M. E. JOHNSON in charge)

Reading or work other than is outlined in the above courses. Admission by consent of the instructor with whom the work is to be done and the head of the department. Credit and hours to be arranged in each case. Open to students who have completed at least ten units of lower division work in the department with a grade of A or B.

Fall and Spring (1 or 2).
CHEMISTRY

Lower division preparation for the liberal arts major in chemistry and for the junior certificate: Chemistry 1A-1B with an average grade of C or better, Chemistry 5 or 7-8, Physics 2A-2B and 3A-3B or their equivalent, Mathematics 7A-7B or the equivalent, and a reading knowledge of German. Students planning to do graduate work in chemistry or to transfer to another college, and those for a degree with a major in chemistry, are advised to take Physics 1A-1B-1C-1D and Mathematics 3A-3B-4A-4B in place of the courses listed above.

Liberal arts major (upper division): A minimum of twenty upper division units in chemistry including Chemistry 110A-110B and 111A-111B. The choice of a related minor and the organization of the course of the major student must follow a definite plan approved by the department.

For requirements for liberal arts major in physical science, see pages 56, 59.

LOWER DIVISION COURSES

1A-1B. General Chemistry. MESSNER, ROBINSON

The general principles and laws of chemistry, and a description of the elements and their compounds. Two lectures, one quiz and two laboratory periods per week. The laboratory work in the second semester consists of work in qualitative analysis. Prerequisites: At least two years of high school mathematics. Recommended: High school chemistry and physics.

Year course (5-5).

5. Quantitative Analysis. MESSNER

The principles of gravimetric and volumetric analysis. Discussions of the theory of quantitative analysis and practice in the standardization of reagents and analysis of samples. One lecture and two laboratory periods per week. Prerequisite: Chemistry 1A-1B.

Fall (3).

7-8. Organic Chemistry. ROBINSON

A general consideration of the carbon compounds (both aliphatic and aromatic) and their derivatives; their synthesis, constitution and properties, and the principles involved. Two lectures and one laboratory period per week first semester; one lecture and two laboratory periods per week second semester. Prerequisite: Chemistry 1A-1B.

Year course (3-3).

UPPER DIVISION COURSES

105. Advanced Quantitative Analysis. MESSNER

Advanced work in the theory and practice of volumetric, gravimetric and electro-analysis. One lecture and two laboratory periods per week. Prerequisite: Chemistry 5.

Spring (3).

107-108. Organic Chemistry. ROBINSON

An upper division course covering the same field as Chemistry 7-8 but including some more advanced work. Two lectures and one laboratory period per week first semester; two lectures and two laboratory periods per week second semester. Prerequisite: Chemistry 1A-1B.

Year course (3-4).

110A-110B. Physical Chemistry. MESSNER

Lectures and problems on theoretical principles of chemistry. Prerequisites: Chemistry 5 and Physics 1A-1B or 2A-2B. With the approval of the instructor, advanced courses in physics may be substituted for Chemistry 5.

Year course (3-3).

111A-111B. Physical Chemistry—Laboratory ROBINSON

Physico-chemical problems and measurements. Two laboratory periods per week. Prerequisites: Credit or registration in Chemistry 110A-110B, Physics 1A-1B or 2A-2B, and calculus. With the consent of the instructor, advanced courses in physics may be substituted for Chemistry 5.

Year course (2-2).

112. Industrial Analysis. ROBINSON

A laboratory course including the analysis of fuels, petroleum products, water, and gas. Prerequisite: Chemistry 5.

Spring (2). (Offered in even-numbered years.)

114. Biochemistry. MESSNER

An introductory lecture course covering the carbohydrates, proteins, fats and the changes which they undergo in digestion and metabolism, as well as a consideration of the vitamins and other accessory food factors and their importance to the body. A brief discussion of the chemistry of plant life. Prerequisites: Credit or registration in Chemistry 110A-110B.

Fall (3). (Offered in odd-numbered years.)

118. Colloid Chemistry. MESSNER

A lecture course covering the theoretical principles of colloid chemistry and the preparation, properties and practical applications of colloids. Prerequisite: Chemistry 110A-110B.

Fall (2). (Offered in odd-numbered years.)

123-124, Organic Preparations. ROBINSON

A laboratory course illustrating some of the more important synthetic methods of organic chemistry. Laboratory and conferences. Prerequisite: Chemistry 7-8. A reading knowledge of German recommended.

Year course, beginning either Fall or Spring (1 to 5-1 to 5).

125. History of Chemistry. ROBINSON

Development of the science of chemistry from the time of the alchemists to the present. Conducted on the reading, report, and seminar basis. Prerequisite: Chemistry 110A-110B.

Fall (2). (Offered in even-numbered years.)

144. Industrial Chemistry. ROBINSON

Industrial stoichiometry, flow sheets, flow of fluids and unit processes. Lectures, problems, and reports. Prerequisites: Chemistry 1A-1B, Physics 1A-1B or 2A-2B, and calculus.

Spring (3). (Offered in even-numbered years.)
128B. Salesmanship.
Salesmanship, the market basket of knowledge: the mechanics of the mind; overcoming fear; the human element in selling; meeting competition; analyzing a sale in advance and methods of using this analysis in consummating a sale; personal attributes; selling an invisible commodity; selling a specialty; retail selling; the steps of a sale. Actual merchandise will be used in demonstration. Outstanding salesmen in the various crafts will illustrate correct methods of selling.
Spring (3). (Not offered in 1936-1937.)

128. Real Estate.
Real estate in all its aspects: property rights, transfer of title, valuation, finance, selling, property management, taxation, insurance, city planning, and the like, with special emphasis upon problems as they exist in San Diego.
Spring (3). (Not offered in 1936-1937.)

131. Public Finance.
Principles and practice of taxation, public expenditures, and financial administration. Prerequisite: Economics 1A-1B.
Spring (3). (Not offered in 1936-1937.)

133. Corporation Finance.
The corporate form of organization, instruments of long-time finance, methods of raising capital, efficient financial management, and the financing of reorganizations. Prerequisite: Economics 1A-1B.
Fall (3).

134. Investments.
Investment principles and practices with emphasis upon problems of the small investor, such as tests of a good investment, sources of information, types of stocks and bonds, mechanics of purchase and sale, investment trusts, real estate mortgages, and the like.
Spring (3).

135. Money and Banking.
The elements of monetary theory. History and principles of banking with special reference to the banking system of the United States. Prerequisite: Economics 1A-1B.
Fall (3).

140. Statistical Methods.
The nature and uses of statistical method in the social sciences. Practice in the tabular and graphical presentation of data; in the computation of averages, ratios and coefficients, measures of dispersion, and measures of relationship. Research studies are made, utilizing data obtained from typical economic and commercial situations, involving

index numbers, time series, and business cycles and barometers. Opportunity to obtain practice in the use of calculating machines and other aids to computation. Prerequisite: Mathematics A, C, and D, or equivalents. Only two units of credit are available for this course in the case of students who previously have completed Education 140.
Spring (3).

A. G. PETERSON
Social insurance, unemployment insurance, accident insurance, sickness insurance and the socialization of health insurance. Annuities, retirement and old age pensions. Voluntary and compulsory, private and public programs. Security through national and international cooperation. Security through the Italian Corporate State, the Nazi Economic Program, the New Deal, the American "New Deal." Security through international conquest and through international cooperation.
Spring (3).

160A-160B. Advanced Accounting.
WRIGHT
An intensive study of the corporation, its accounting and financial problems; study of the balance sheet; depreciation; factory accounting; annual financial statement; accounting for the income tax. Prerequisite: Economics 1A-1B. Year course (2-3).

161. Cost Accounting.
WRIGHT
Principles and methods of cost accounting in the merchantile establishment and in the factory. A study of bookkeeping procedure, the forms used, and their application to practical problems. Prerequisite: Economics 1A-1B.
Spring (3). (Not offered in 1936-1937.)

162. Accounting Systems.
The accounting systems used in various types of business and financial concerns. Some practice in devising and installing systems. Prerequisite: Economics 1A-1B.
Spring (3).

The application of mechanical accounting devices to accounting conditions together with a study of efficient machine methods that conform to good accounting practice and yet meet the practical accounting requirements. Prerequisite: Economics 1A-1B.
Fall (3). (Not offered in 1936-1937.)

WRIGHT
A consideration of the problems arising from the Federal income tax. The problems are approached from the point of view of the taxpayer who desires to determine the exact application of the law to the interests he
represents as well as from the accounting point of view. No knowledge of accounting procedure is necessary.

Fall (2). (Not offered in 1936-1937.)

165. Auditing.  
WRIGHT
The fundamental principles of accepted procedures of auditing and related types of accounting engagements.

Fall (2).

171. Transportation.  
CAMERON
The development of railway transportation; railroad financing; rates and rate making; government regulation; government operation of railroads during the war; recent development of motor and air transportation; current problems. Prerequisite: Economics 1A-1B.

Spring (3).

199. Special Study.  
A. G. PETERSON
Designed exclusively for seniors with a major in economics or commerce.

Spring (2).

Economic Geography  
(See Geography)

Social Science

LOWER DIVISION COURSES

A. G. PETERSON
An analysis of major problems of the present day with reference to the conditions out of which they arise and with regard to their essential unity and interrelationships and an attempt to introduce the student to sound methods of approach in dealing with these problems. Prerequisite: Sophomore standing.

Fall and Spring (3).

ROGERS
An introductory survey of sociological viewpoints. Origin and spread of civilization. Economic backgrounds of society. Emergence and evolution of social institutions: the family, the state, the church. The growth of the idea of progress and the development of scientific thought.

Fall and Spring (3).

50. General.  
KELLY
A study of the nature and organization of human group activity, including the relation of cultural heritage to public opinion and social change. Previous preparation in biology and psychology recommended.

Fall and Spring (3).

Social Psychology  
(See Psychology)

WATENPAUGH
The principles and methods of merchandising; the function and modes of operation of the retailer, the jobber and the manufacturer; types of merchandising; competition; prices; price factors; economics of selling; principles of buying and selling; inventory procedure; stock control; mark-ups and mark-downs; statistical organization and graphical presentation of merchandising data.

Year course (Fall, 3 units; Spring, 3 or 4 units).

25A. Salesmanship.  
WATENPAUGH
The mechanics and theory of salesmanship; methods of approach and demonstration; selling ideas and services; meeting objections; inducing decisions; closing sales; the personal factor in connection with the sale. Outstanding salesmen in the various crafts will illustrate correct methods of selling.

Fall (2).

25B. Advertising.  
WATENPAUGH
Functions, theory, principles and applications; selecting the right appeal; surveys and analyses; studying markets; budgeting the appropriation; layouts, type, borders and illustrations; use of color; choice of mediums; writing publicity and promotion stories; openings, anniversaries, sales and special events; institutional copy; the advertising agency and its functions; sales and collection letters.

Spring (2 or 3).

WATENPAUGH
The field of retailing from the point of view of the store manager, including location, organization, personnel, service features. Sales promotion and store problems regarding claims and adjustments, returned goods, delivery. Investigations of the problems which confront the managers of retail stores. Prerequisite: Merchandising 24A-24B.

Fall (3).

Secretarial Training  
WRIGHT
A. Business Mathematics.  
A practical course in the mathematics of business. A thorough study of interest, compound interest, discount, amortization tables, insurance rates, etc.

Fall (1).

1A-1B. Typewriting.  
AMDBEN
A rapid development of a thorough command of a keyboard by the touch method. The acquisition of speed and the artistic arrangement of typewritten material with special reference to commercial forms, tabulation typewritten material with special reference to commercial forms, and billing; specifications, legal forms, and preparation of manuscripts; transcription, mimeographing, etc. Eight hours lecture and laboratory practice.

Year course (3-3).

2A. Typewriting.  
AMDBEN
A short course designed for those not wishing to enter the business
office but desiring a knowledge of the use of the typewriter. Five hours
laboratory practice.
Spring (2).

3A. Office Methods and Appliances. W. H. WRIGHT
Practice and principles of office management, including organization,
arrangement, and operation. Study and use of modern office appliances,
such as the multigraph, mimeograph, filing devices, calculating and book-
keeping machines. Prerequisite: Secretarial Training 1A or its equiva-
 lent.
Spring (3).

5A-6B. Stenography. AMSDEN
An intensive course designed for the practical preparation of office sec-
retaries. A thorough study of the Gregg System. Development of the
ability to read and write shorthand rapidly and correctly, both literary
and commercial. The shorthand speed necessary to pass a civil service
examination is attained by the end of the year.
Year course (5-5).

6A-6B. Advanced Stenography. AMSDEN
Development of speed in writing and transcription. Advanced dictation
on letter forms, legal forms, speeches, and literary and technical material.
Year course (3-3).

10A. Business Correspondence. AMSDEN
Theory and practice of business correspondence. Lectures and labora-
 tory work. Prerequisite: English 1A or equivalent (as indicated by
Subject A Test or record from another college).
Fall (5).

EDUCATION
AULT AND STAFF
Supervised study in arithmetic, penmanship, reading, and spelling for
teacher training students deficient in these subjects. Successful comple-
tion of one of these courses is accepted in lieu of a passing grade in the
Fundamentals Test in the subject. The Fundamentals Test, including
achievement tests in arithmetic computation, arithmetic reasoning, silent
reading comprehension, spelling, and penmanship, is a prerequisite for
teacher training students in their freshman year. Those who pass this
A-P-R-S.
Fall and Spring (9).

17. Music in the Elementary School. SPRINGSTON
Study of the child voice. Organization of song material by grades. Pro-
reading, and part singing. Conducting. Not open to students taking
the equivalent. Prerequisite: Music 1A, or
Fall and spring (2).

19. Art in the Elementary School. PATTERSON
Discussion of the elements and principles of art and their place in the
art expression and appreciation of the elementary school child. Lectures
illustrated with examples of children's work and opportunity given for
experience with mediums used in elementary school problems. Not open
to students taking the elementary credential. Prerequisite: Art 6A.
Fall and spring (2).

UPPER DIVISION COURSES

106. Philosophy of Education. AULT
The fundamental biological, psychological, philosophical, social prin-
ciples underlying modern education, in connection with the demands of
modern society in a complex social, economic, and scientific world, with
a view to the formulation of a working philosophy for the educative
process. Designed as a culmination of the studies of education and its
procedures. Open only to students with senior standing.
Spring (3).

107. History of Education. AULT
A brief study of early Hebrew, Greek, Roman and early Christian edu-
cation; of the changes brought about by the Renaissance; of the transi-
tion to modern secular education; brief review of the educational
philosophies of the great reformers; a concluding study of the develop-
ment of the American school system and of American ideals and practices
in education. Only 2 units allowed for students having credit for Educa-
tion S107, History of Education in the United States (offered in the sum-
mer session).
Fall (3).

108. Educational Measurements. PERRY
A brief survey of the development of scientific measurement in the ele-
mentary school field, including an intensive study of the more reliable and
valid tests of school achievement and of mental ability. Statistical train-
ing given in handling data obtained by using measurements in typical
situations, leading to a study of the uses of tests. Practice in the
school situations, leading to a study of the uses of tests. Practice in the
construction of teacher-made, objective tests in the elementary school
subjects.
Fall and spring (3).

109. Educational Administration and Supervision. A
A survey of the systems of organization, classification, and promotion
of pupils, and such problems as finance, the teaching staff, building
standards, extra-curricular activities, etc. Prerequisites: Education 125,
108, or equivalents.
Summer (2).

110. Educational Organization and Supervision. A
Types of supervision and methods of evaluating and improving teach-
ing. Prerequisites: Education 125, 108, or equivalents.
Summer (2).
111. English in the Junior High School.

Objectives of literature and language teaching in the junior high school; criteria for selection of material; technique of classroom procedure; observation in the city schools. Prerequisite: The satisfaction of the lower division requirements in English for the teaching major in English. Spring (2).

112. Mathematics in the Junior High School.

The subject matter, management of it, and methods of teaching it in a junior high school curriculum in general mathematics. Specific problems: the application of arithmetic in current social and business life, intuitive geometry, graphic representation, the phase of algebra suitable to the junior high school pupil, preparation for senior high school mathematics. Prerequisites: Psychology 1A and a passing grade in the Fundamentals Test (2). (Not offered in 1886-1987. Students will substitute Mathematics 19).

114. Social Science in the Junior High School.

The teaching of some of the elementary facts and principles of a "general" social science suited to the experience and development of the junior high school pupil. The medium of such social studies in the junior high school curriculum as history, geography, and civics. civic problems through observation and reading, discussed and illustrated. Special care in evaluating historical and geographical material and educative purposes on this level. Prerequisites: Six units of geography and six units of history. Fall and spring (2).

116. Practice Teaching.

Systematic observation, participation and teaching under supervision in the campus training school, the Euclid affiliated city elementary school, and the junior and senior high schools of the city of San Diego and vicinity.

The general plan is for elementary school credential candidates to take, in addition to the education practicae, two hours of teaching in the Euclid school throughout one semester; junior high school and adviser work in the distribution of their teaching candidates will be guided by their special training; junior high school and adviser work in the distribution of their teaching candidates will be guided by their special training. For teaching high school and junior high school, the requirements for such teaching should be requested of the Dean of Education when the student registers for the course. Thirty clock hours of practice teaching will usually carry one unit of credit in the course, but the final amount of credit allowed will depend on the character and quality of the teaching done by the student. Experience in successful public school experience. The maximum amount of credit allowed for this course is twelve units. The universities usually reduce the amount of practice teaching credit they will allow to four units. Students planning to transfer to such institutions should be prepared to meet this reduction with an equal number of acceptable units in other courses.

No grade below a C is acceptable for credit in this course. Prerequisites: Admission to upper division teacher training; a C average in all college work and in the work of the preceding semester; three units of work in psychology. No credit will be given for this course unless registration is made in the office of the Dean of Education.

119. Art in the Junior High School.

Art curriculum planning for junior high schools and studio problems and discussion. Prerequisite: Education 19. Spring (2). (Offered in odd-numbered years.)

120. General Science in the Junior High School.

The content, methods, field work, text books, laboratory work, equipment, and reference reading for teaching general science in a junior high school. Prerequisites: Eighteen units of college science including one year-course in a college biological science, Physics 2A-2B, or equivalent, and high school or college chemistry. Spring (2). (Offered in odd-numbered years.)

121. Principles of Secondary Education.

The principles of educational science that should underlie the organization, administration and curriculum of the secondary school. Prevalent tendencies in the direction of the principles of high school education. Particular attention to the method of directing future development. Prerequisite: Psychology 1A. Open only to students with senior standing. Fall and spring (3).

124. Romance Languages in the Junior High School.

The main questions of pronunciation, grammar, composition, reading, and writing, Spanish and French, in French and texts, etc., the different methods; their history and value. Prerequisite: Spanish, two years of college French or Spanish. Spring (2).

125. The Elementary School Curriculum.

An analytical and constructive curricular study of the subject matter taught in the elementary school, with particular emphasis on the upper grades in the elementary school, including typical teaching techniques in the elementary school, including typical teaching techniques in the upper grades in the elementary school. The course embraces individual and group research work in curricular studies of teaching methods. Required of candidates for junior high and special credentials in art and junior high school credentials must register for the education practice junior high school. Prerequisite: Education 108, taken previously or at the same time. Fall (3).
Main objectives of music teaching in the public secondary schools. Organization of the chorus and glee clubs, voice testing, seating, a survey of song materials available. Organization of courses in applied music, harmony, history and appreciation.
Fall (2). (Offered in odd-numbered years.)

130. Educational Psychology. PERRY
Man's equipment for learning and the learning process. Consideration given to human behavior which is fundamental to learning. The study of learning includes such topics as laws of learning, improvements in learning, remembering and forgetting, fatigue in learning, and the transfer of training. Prerequisite: Psychology 1A.
Spring (3).

137. Comparative Education. AULT
School systems of England, France, Germany, and Denmark; traits of peoples; origins and development of school systems; literacy of populations; traditional influences; characteristic types of group and educational procedures; governmental and private support; training of teachers.
A knowledge of History of Education desirable but not required.
Fall (3). (Not offered in 1936-1937.)

140. Elementary Educational Statistics. PERRY
An introductory study of measures of central tendency, of variability, and of relationships which are commonly used in connection with educational work. Laboratory training in statistical method and opportunity to obtain practice in the use of calculating machines and other aids to computation. Data for statistical research taken from typical school situations. Only 2 units allowed students who have taken Economics 140.
Fall (3).

142. Educational Sociology. HEPPNER
A consideration of school practices in light of social needs; interrelationships of schools and other social agencies; and trends in cooperative activities among community organizations. Selected individual study projects to make personal contacts with various types of public and private social institutions and with some current social movements. Prerequisite: Upper division standing.
Spring (3).

145. Organization and Administration of Music Education. L. D. SMITH
Theory of the general principles of music administration; correlation of music with the various subjects in the public schools; music tests; creative work.
Fall (2). (Offered in even-numbered years.)

147. Education Practicum—Lower Levels (See description below.)
Fall and Spring (10).
Bacon, Deputy, Hammack, Patterson, Springer

148. Education Practicum—Upper Levels (See description below.)
Fall and Spring (10).
Corbett, Deputy, Patterson, Richards, Smore, Springer

The educational practicums will include the work formerly offered in Education 1, 17, 19, 125A, 125B, 126, and 129.
In place of the discontinued course, all upper division candidates for the elementary school credential will be required to take the two educational practicums, the lower dealing with the lower levels being prerequisite to the one dealing with the upper levels. The material covered will be equivalent to the courses discontinued, plus four units of practice teaching. The maximum credit allowed for each practicum is 10 units.
A group of courses taken at this or another institution will not be considered as a substitute for the educational practicums. If such independent courses have been completed in the college previous to September 1934, or in another teacher training institution, credit may be submitted to the Dean of Education and, with his approval, an equivalent may be allowed.

2. Content of the Practicums.
Characteristics of children in the elementary school; organization of the activity program; study of activities and materials based on children's interests, capacities, needs, and the local environment; teaching and learning procedures in the fields of reading, language, writing, use of numbers; observation and participation in actual classroom situations.

Lectures, discussions, and observations held daily by each supervisor and the principal of the training school from 8.10 to 10.00 a.m.; also, participation for one hour daily in the activities of the pupil-group to which he is assigned will be required of each student.

4. Registration for Education Practicums.
The practicum courses are to be taken by the student in his junior year. Assignments will be made by the principal of the training school at the time of preregistration of upper division teacher training students.

160. Commercial Education.
Aims, objectives and procedures in commercial education. A study of curricula, together with a consideration of the content of commercial subjects; tests applicable to commercial teaching.
Fall (2).

The methods and content of the course in the elements of business training as offered in the junior high school. Not open for credit for training as offered in the junior high school.
Spring (2).

163. Stenography.
Methods and content of courses in stenography. Prerequisites: Secretarial Training 5A-5B, 6A.
Fall (2).
164. Bookkeeping. W. H. Wright
Various types of bookkeeping methods, with considerable study of content.
Fall (2).

165. Typewriting. Amsden
Methods in typewriting and office procedure. Prerequisite: Secretarial Training 1A.
Spring (2).

170. Administration of a Visual Instruction Program. Evans
Supervised study and practical experience in the various phases of work in a visual instruction center. Aims to give teachers a specific knowledge of visual instruction materials and methods and to meet the needs of individuals interested in obtaining training in the administration phases of a visual instruction program to fit them for positions as directors of staff workers in the field.

The service program of a visual instruction center is studied as a collecting, selecting, organizing and distributing center for classroom illustrative materials; a teacher training and advisory bureau in the technique and correct use of visual aids; a photographic production laboratory for making current and local illustrative materials for the curriculum; a testing division for evaluating visual equipment, standardization and upkeep of same; a center for correlating and integrating the school program with opportunities offered by other community educational institutions and organizations; an advisory department for supervising school film productions and for instructing teachers and students in the art of photography and appreciation of photoplays.

This course is given at the visual education center of the San Diego city schools and the enrollment is limited to students who have made previous arrangements with the head of the Education Department and with the instructor.
Fall and Spring (2).

199. Educational Problems. Education Staff
A course for senior students in teacher training who have shown ability to work independently on educational problems. Admission only by consent of the staff. Credit and hours to be arranged.
Fall and Spring (1-3).

ENGLISH
Lower division preparation for the liberal arts major in English and for the junior certificate: English 1B-2 or 3 and six units from 52A, 52B, 56A, 56B.

Liberal arts major (upper division): 24 units in upper division English to be selected and arranged under supervision of the department. Not over four units may be in composition. A reading knowledge of German or French.

LOWER DIVISION COURSES

1A. Freshman English. Keeney, Trail
The elements of composition, including drill in grammar and usage, exercises in vocabulary building and careful reading, and an introduction to the principles of effective writing.
Fall and Spring (1).

1B. Freshman English. Adams, Dickhaut, Keeney, Trail, F. D. Walker
Reading and composition. Reading chosen from essay material of England and America since 1850. Composition stressing exposition. Prerequisite: English 1A or equivalent (as indicated by Subject A test or record from another college).
Fall and Spring (3).

2. Sophomore English. F. D. Walker
Reading and composition. Reading from field of biography and memoirs. Composition stressing personal narrative and informal essay. Prerequisite: English 1B.
Fall and Spring (3).

3. Sophomore English. Adams
Reading and composition. Reading from contemporary periodical literature. Composition stressing article writing of varied types. Prerequisite: English 1B.
Fall and Spring (3).

4A-4B. Great Books. Outcalt
A survey of books and bodies of literature that are significant sources or expressions of European and American culture. These include the Hebrew Bible, Greek epic and tragedy, Norse eddas, and other literature of religious and communal character; and highly significant masterpieces in poetry and prose by great authors down to the nineteenth century.
Year course (3-3).

10. Recreational Reading. Dickhaut
Development of personal taste for leisure-time reading through lectures and oral or written reports. May be taken a second time with new and oral or written reports. May be taken a second time with new material.
Fall and Spring (1).

52A-52B. Types of Literature. Outcalt
Semester I: Introduction to the study of lyrical and narrative poetry; origin and elements of poetry; typical poems. Semester II: The study of dramatic poetry and prose, the essay, novel and short story; elements, principles and characteristics; examples.
Year course (3-3).

56A-56B. Survey of English Literature. Keeney
The most important masterpieces of English literature from the Anglo-Saxon period through the Victorian age.
Year course (3-3).
UPPER DIVISION COURSES

101. Modern Prose Fiction. DICKHAUT
Recent and contemporary fiction in novel and short story, beginning
with Meredith and including the best British and American fiction of
today.
Spring (3).

106A, 106B. Advanced Composition. DICKHAUT
A laboratory course in modern prose writing. Semester I: Artistic
narrative, with description. The short story. Semester II: The essay,
the magazine article, criticism. Outside readings. Prerequisite: One
year college composition. Either semester may be taken first.
Fall, Spring (2, 2). (Not offered in 1936–1937.)

107A, 107B. Advanced Composition. ADAMS
These courses are designed for students who wish to do independent
work in composition. The discussions will consider the problems of effec-
tive expression as exhibited in the work of the members of the class.
Prerequisite: Same as for 106A, 106B. Either semester may be taken
first.
Fall, Spring (2, 2).

110. Recreational Reading. DICKHAUT
An advanced course similar in character to English 10.
Fall and Spring (1).

116. Elizabethan Literature. ADAMS
An introduction to the principal writers from Wyatt and More to Ben
Jonson and Bacon. Approximately equal attention is given to the non-
dramatic poetry, the prose, and the drama of the period.
Fall (3). (Offered in even-numbered years.)

117. Shakespeare. OUTCALT
Extensive reading of Shakespeare's plays, with special attention to a
select group of the comedies and another of the tragedies. Lectures and
special reports.
Spring (3).

118. Makers of Eighteenth Century Literature. KEENEN
Pope, Defoe, Swift, Johnson, Goldsmith, Fielding, and their contem-
poraries as interpreters and teachers of their age.
Spring (3).

119. The Romantic Poets. ADAMS
A study of early nineteenth century poetry; the work of Wordsworth,
Coleridge, Byron, Shelley, and Keats, in relation to the thought of the
revolutionary period.
Spring (3).

121. Poetry of the Victorian Period. F. D. WALKER
A study of Tennyson and Browning and their contemporaries and suc-
cessors, relating English poetry to nineteenth century life and thought.
Fall (3). (Offered in odd-numbered years.)

126. Anglo-Irish Prose from Landor to Galsworthy. DICKHAUT
Discussion, criticism, belles-lettres in England and Ireland from the
Victorians to the late Georgians, including selections from Carlyle, Mill,
Huxley, Newman, Stevenson, Pater, Shaw, Russell, West, Beerbohm,
Chesteron, Inge, and others. Lectures and reports on outside reading.
Fall (3).

130A. American Literature. OUTCALT
A survey of American Literature with its backgrounds from the begin-
ning of the 19th century to about 1880. Cooper, Melville, Hawthorne,
Poe, Emerson, Thoreau, Whitman, Mark Twain and others are considered
and related to national development. Lectures, discussions, and reports.
Fall (3).

130B. American Literature. F. D. WALKER
A survey of American literature with its backgrounds, covering the
period from about 1890 to the present time. Extensive reading in recent
and contemporary poetry, fiction, etc. Lectures, discussions and reports.
Spring (3).

143. The Development of the English Novel. F. D. WALKER
History of the English novel from the beginnings to Hardy. Extensive
reading of novels with reports. Lectures and discussion.
Fall (3). (Offered in even-numbered years.)

151. Medieval Literature. KEENEN
The literature of the fourteenth century, especially the verse romances
and the poetry of Chaucer.
Fall (3).

160. Milton and Dryden. ADAMS
Studies in poetry of the seventeenth century, relating it to the thought
and the social life of the age.
Fall (3). (Offered in odd-numbered years.)

LOWER DIVISION COURSES

1A. Fundamentals of Public Speaking. PFAFF
Training in fundamental processes of oral expression; methods of
obtaining and organizing material; outlining principles of attention and
delivery; extemporaneous speaking and open forum debating; practice in
delivery; extemporaneous speaking and open forum debating; practice in
collection and delivery of type forms of speech.
Fall and Spring (3).

1B. Extemporaneous Speaking (or Forum Speaking). PFAFF
Practice in extemporaneous speaking on subjects of current interest
both national and local, with stress laid on the organization and delivery
of content material. Forum discussion will provide speakers with the
opportunity of assembling facts quickly to meet such questions as any
audience situation might demand.
Spring (3).

The oral interpretation of longer literary selections, both in poetry and prose; a fundamentals course designed for the beginning students in drama as well as those majoring or minoring in English literature. 
Fall (3).

1D. Advanced Interpretation. 

Emphasis placed on stage poise and grace with adequate attention given to variations in the presentation of literary selections. Much opportunity is provided for individual and group creative work. No prerequisite. 
Class limited. 
Spring (3).


Corrective laboratory training prescribed on the basis of vocalization tests made on Edison machine. Required of education majors who fail to meet speech requirements test. Also recommended for those who plan public careers. 
Fall and Spring (1). (9 weeks' course.)

55A-55B. Dramatic Production. 

A course for first and second year students in which, through participation, they acquire an understanding of certain dramatic periods and types studied in English literature. Individual and group expression coordinated and developed in production of scenes, acts, and plays—a fundamental drama course. No prerequisite. 
Year course (3-3). (Offered in odd-numbered years.)

55C-55D. Dramatic Expression. 

A course designed to help first and second year students realize and develop their own abilities for expressing character and life. Coordination of thought, voice, and body, acquired through interpretation, impersonation, and acting of contemporary situations, creative and standard drama, History, technique, and use of dramatic expression studied. Informal participation by all. Best work given public performances. A fundamental course. 
Year course (3-3). (Offered in even-numbered years.)

UPPER DIVISION COURSES

101B. Argumentation and Debate. 

Obtaining and organizing of evidence and the construction and use of the brief; study and discussion of current issues; the presentation of formal and informal debates. Attention to intramural and intercollegiate debating. 
No credit for students having taken 1B previous to 1934–1935. 
Spring (3).

155A-155B. Advanced Dramatic Expression. 

For upper division students training for leadership in different fields as well as drama. More advanced forms of dramatic expression studied; creative abilities in interpretation, writing, acting, and stagecraft developed in relation to various subjects and activities conducted through individual research projects, group discussion and participation. Original work encouraged. Prerequisite: A fundamental drama course. 
Year course (3-3). (Offered in odd-numbered years.)

156A-156B. Advanced Dramatic Production. 

The study of more difficult dramatic types and periods in the production of poetic and prose literature of different countries. Arrangement, organization, creation, direction and presentation of class room, recreation and other forms of performances. Practical participation and demonstration. A course designed for students majoring in other subjects as well as the theater arts. 
Year course (3-3). (Offered in even-numbered years.)

FOREIGN LANGUAGES

JOURNALISM

(See page 106)

LOWER DIVISION COURSES

A.-B. Elementary. 

Intensive study of French grammar and syntax; daily written work discussed in class; class drill in conversational idioms and pronunciation; reading with oral discussion and résumés; dictation; introduction to contemporary prose writers. Credit not given for French A unless followed by French B. Students who have had one year of French in high school should register for French A, but will receive only two units of credit. Those who have had two years of French in high school should register for French B, in which case they will receive four units of credit. 
Year course (5-5).
Spanish, or its equivalent. Students with credit for four years of high
school Spanish, or its equivalent, should enter Spanish D.
Year course (3-3.)

1-2. Elementary.
A course similar to Spanish A-B, but meeting only three times a
week and giving only three units of credit a semester. Intended for
those who do not wish to major in Romance languages and for those who
wish to go more slowly than is possible in a course meeting five times a
week. Students who have had one year of Spanish in high school should
register for Spanish 2. Credit not given for Spanish 1 unless followed
by Spanish 2.
Year course (3-3.)

3-4. Intermediate.
A continuation of Spanish 1-2. Reading of Spanish prose; compo-
sition; outside reading in Spanish 4, with reports. Students with two
years of high school Spanish should register for Spanish 3 or Spanish
B. Those with three years may register for either Spanish 4 or
Spanish C.
Year course (3-3.)

UPPER DIVISION COURSES

101A-101B. Conversation and Composition.
Prerequisite: Spanish D, or its equivalent, with grade of C.
Year course (3-3). (Offered in 1937-1938.)

102A-102B. Introduction to Spanish Classics.
Reading from several types of classical literature. Lazarillo de Tormes,
and other novels of Rengier; selections from Don Quixote, and the
Cien Mejores Poesias Castellanas; one drama each from the works of
Lope de Vega, Calderon, Alarcon, and Moreto; collateral reading and
reports. Prerequisite: A grade of C in Spanish D or permission from
the instructor.
Year course (3-3). (Offered in 1938-1939.)

104A-104B. Spanish-American Literature.
A survey of the whole field of Spanish-American literature during the
colonial, revolutionary and modern periods, with special attention during
the second semester to the literature of one country. Collateral reading
the instructor.
Year course (3-3). (Offered in 1939-1940.)

105A-105B. Modern Spanish Drama.
The development of the drama of Spain from the beginning of the
nineteenth century to the present time. Prerequisite: A grade of C in
Spanish D or permission from the instructor.
Year course (3-3). (Offered in 1939-1940.)

110A-110B. Novel and Short Story in Spain.
The development of the novel and short story in Spain from 1830 to
the present time. Prerequisite: A grade of C in Spanish D or permission
from the instructor.
Year course (3-3). (Offered in 1937-1938.)

199. Comprehensive Reading and Survey Course.
The Staff
Designed to fill up the gaps in the reading done in courses. Class meet-
ing once a week for guidance, reports, and quizzes. Either this course or
French 199 is required of all seniors majoring in Romance Languages.
Spring (3).

LOWER DIVISION COURSE

A. Latin and Greek Word Derivation.
L. P. Brown
A general and elementary course in philology. A study of Latin and
Greek roots of most frequent occurrence in English, and of the English
words derived from them. Not open to first semester freshmen.
Spring (2).

GEOGRAPHY

Lower division preparation for the liberal arts major in geography
and for the junior certificate: Geography 1, 2, 3, and Geology 1A-1B.
Recommended: A reading knowledge of French or German.
Liberal arts major (upper division): Twenty-four units of upper divi-
sion work in geography or 18 units in geography and six units in related
subjects arranged in consultation with the chairman of the department.

LOWER DIVISION COURSES

1. Introduction to Geography; Elements.
Clare, Storm
The fundamental principles of geography, the distribution of life upon
the earth, and the effects of environment upon the activities of man.
Climate, land forms, bodies of water, natural resources, and location in
their relation to human activities. Open to all students.
Fall and Spring (3).

2. Introduction; Natural Regions and the Distribution of
Population and of Cultures.
Clare, Storm
The application of the fundamental principles of geography to the
various regions of the world. Comparison of regions with regard to
different stages of development. Prerequisite: Geography 1.
Fall and Spring (3).

3. Elementary Meteorology.
Blake
An elementary study of the earth's atmosphere and changes in it which
produce our weather and influence human affairs. Special attention given
to local conditions, instruments, and records.
Spring (3).

12. Geography of California.
Storm
The main physiographic regions of California and the cultural land-
sapes developed by the successive cultural groups. Prerequisite: Geog-
raphy 1.
Spring (2).
13. **Regions: Advanced.** CLARK

Special regions selected from Africa, Australia, Oceania, and Polar Areas. Prerequisites: Geography 1 and 2.

Fall (2).

**UPPER DIVISION COURSES**

116. **Geography of South America.** CLARK

The climate, topography, and natural resources of the South American countries; the effect of those physical factors upon the economic, commercial, and racial problems of the different nations. Prerequisite: Geography 1.

Spring (3).

117. **Geography of Northwestern Europe.** CLARK

The physical environment of each of the nations of the area and their reactions to physical environment in their political and social relations. Importance of the countries in manufactures. This course is planned so to familiarize the student with modern European countries that he can read current periodical literature with understanding and interest. Prerequisite: Geography 1.

Fall (3).

118. **Geography of the Mediterranean Area.** CLARK

A treatment of Southern Europe, Western Asia, and Northern Africa as a unit and a comparison of the land forms, climates, types of native vegetation, cultivated crops, industrial status, and present world position; also the effect of geographic factors on the history of the area. Prerequisite: Geography 1.

Spring (3).

121. **Geography of North America.** STORM

The natural regions of North America, their formation and economic and historical development. Prerequisite: Geography 1.

Fall (3).

124. **Geography of Asia.** STORM

The cultural regions of Asia, their physical environment, and historical development. Prerequisite: Geography 1.

Spring (3).

135. **Geography of the San Diego Area.** CLARK, STORM

Directed individual rural and urban field work of San Diego area including the mapping of a small area and its geographic interpretation. Prerequisites: Geography 1, 2, and Geography 1A.

Fall (2). (Offered in even-numbered years.)

141. **Economic Geography.** STORM

A world-wide survey of the raw materials of world trade; their production and distribution as related to the major geographic regions of the world. Prerequisites: Geography 1 and 2.

Fall (3).

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**GEOLOGY**

Departmental requirement in Geology for liberal arts major in Physical Science includes in addition to Geology 1A-1B, the completion of: Chemistry 1A-1B, and 5; Mathematics 3A; Physics 1A-1B; 1C-1D or 2A-2B; 3A-3B.

Students preparing for advanced work in Geology may substitute Industrial Arts 21 for Mathematics 3A.

French or German and Surveying 1A-1B are recommended.

**LOWER DIVISION COURSES**

1A. **General.** BROWN

The composition and distribution of earth materials, and their modification through mechanical and chemical processes of change. Three lectures and one three-hour laboratory period weekly with related field study during the semester.

Fall and Spring (4).

1B. **Historical.** BROWN

Theories of earth origin, and the evolutionary history of the earth as traced through rock and fossil records. Consideration of the geologic history of selected regions. Three lectures and one three-hour laboratory period weekly, with arrangement for field study and conference during the semester.

Spring (4).

**UPPER DIVISION COURSES**

100. **Physical Geology.** BROWN

The evolution and description of the structural and topographical features of the earth. Faulting, folding, and orogenic forces with practical illustrations from the North American Continent. Lectures, discussions, and occasional field trips. Prerequisite: Geology 1A-1B.

Fall (3).

101. **Geologic Problems.** BROWN

Reconnaissance of adjacent areas with elementary mapping; or directed reading from a prepared syllabus introducing the several phases of geologic literature; or selection and preparation of material for the museum collections. Prerequisite: Geology 1A-1B. Registration subject to approval of instructor.

Spring (1-4).

**GERMAN**

(See Foreign Languages)

**HEALTH AND PHYSICAL EDUCATION**

(See Physical Education)

**HISTORY**

Lower division preparation for the liberal arts major in history and for the junior certificate: History 4A-4B, or 5A-5B, and either Political Science 1A-1B or Economics 1A-1B. No student shall enroll in more
than one lower division history course during a semester. Students who wish to major in history and who have had less than two years of European history in high school must take History 4A-4B.

Liberal arts major (upper division): Twenty-four units in upper division courses in history to be arranged in consultation with the chairman of the department. The student must, in his senior year, enroll in History 100.

LOWER DIVISION COURSES

4A-4B. History of Modern Europe.  
**Lesley**

Development of European society and institutions from about 1500 A.D.  
Year course (3-3).

8A-8B. History of the Americas.  
**Nasatir**

A general survey of the history of the western hemisphere from the discovery to the present time. Emphasis on the process of planting European civilization in the new world, the international contest for the continents, the wars for independence, the development of the American republics, and their relations with each other and with the rest of the world. Based on H. E. Bolton’s “Syllabus of the History of the Americas.”  
Year course (3-3).

UPPER DIVISION COURSES

111A-111B. Ancient History.  
**Lesley**

Semester I: Social, economic, political, and cultural development of the Greek states with emphasis upon the growth of democracy, attempts at federal union, imperialism, and Hellenism. Semester II: Roman history from the earliest times to the beginning of the medieval period; discussions of Roman imperialism and the main constitutional, economic, social, and religious developments in the republic and the empire.  
Year course (3-3). (Not offered in 1936-1937.)

121A-121B. Medieval History.  
**Lesley**

General survey of European politics and the cultural development of the Middle Ages; the antecedents of the Renaissance; development of medieval life and institutions, feudalism, the church, the universities, and intellectual tendencies. The rise of towns, of new nations, and of new thought, especially in the twelfth and thirteenth centuries. Period covered: 500-1500 A.D.  
Year course (3-3).

145A-145B. Europe Since 1789.  
**Lesley**

Revolutionary era; conflict of reaction and liberalism; development of nationalism, with special attention devoted to the unification of Germany and Italy; events leading up to the World War and contemporary problems of Europe resulting from that conflict.  
Year course (3-3).

146A-146B. Diplomatic History of Europe.  
**Lesley**

European diplomatic and colonial policies since 1648, with detailed attention to the basic factors in international organization and procedure. During the second semester special emphasis upon the period 1870-1914.  
Year course (3-3). (Not offered in 1936-1937.)

151A-151B. England Since the Norman Conquest.  
**Nasatir**

A survey of political and constitutional development in England since 1066, stressing the transition from medieval to modern England, Tudor despotism, the struggle for self-government under the Stuarts, the rise and development of present-day political and social institutions.  
Year course (3-3). (Not offered in 1936-1937.)

156A-156B. History of British Expansion.  
**Nasatir**

A study of the growth, development, and break-up of the older overseas empire; the beginnings of the newer empire after 1783; the rise, federation, and imperial relations of the British Commonwealth of Nations; the crown colony system; India under British rule; and British expansion in Africa and the Pacific; development of British mandates.  
Year course (3-3).

161. South America Since Independence.  
**Nasatir**

The republics of South America. Attention directed to the development of nationality in South America, the struggles for political stability, the exploitation of resources, diplomatic and commercial relations with the United States, and other international problems of South America. Survey of present-day conditions, political, economic, and social.  
Spring (3).

163. Mexico and the Caribbean Countries.  
**Nasatir**

Same plan in general as outlined in History 161. Special attention to the relations of the United States with these countries, and to the recent developments in Mexico.  
Fall (3).

**Leonard**

Semester I. English colonization in North America and the development of colonial institutions and politics. Semester II. The revolutionary movement and the Revolutionary War; the establishment of the government under the Constitution to the close of the War of 1812.  
Year course (3-3).

**Leonard**

The rise of Jacksonian Democracy; territorial expansion and the Mexican War; the slavery controversy; the Civil War, and reconstruction; the growth and progress of the United States to the World War.  
Year course (3-3). (Not offered in 1936-1937.)

199. Special Course for Advanced Students.  
**Leonard**

Required of all students with a history major in the liberal arts curriculum and to be attended during the senior year. Other students may be admitted with the permission of the instructor.  
Spring (2).
HYGIENE

LOWER DIVISION COURSES

1. Personal and Civic (Men). C. E. Peterson
   An informational course in personal and community hygiene. A study
   of social hygiene and the hygienic principles of living. Investigations by
   each student of special topics which serve to vitalize the means for pro-
   tecting and improving the health of the community. It is especially
desirable that this course be taken in the first semester of the freshman
year. Not required of students in a teacher training curriculum.
   Fall and Spring (2).

2. Personal and Civic (Women).
   An informational course reviewing the principles underlying the improve-
ment and preservation of personal and civic health. Social hygiene in its
relation to the practical problems of young women and prospective home
makers. A detailed study of the laws and procedures in local civic health
matters of particular interest to women. Required of all freshmen who
are candidates for the junior certificate or the degree in the liberal arts
curricula, but not required of students in a teacher training curriculum.
   Fall and Spring (2).

INDUSTRIAL ARTS

LOWER DIVISION COURSES

3A. Mechanical Drawing. WAlling
   Use and care of drafting instruments, lettering, orthographic projec-
tions, developments, intersections, tracing. Drafting room six hours per
week. Required of all engineering students who have not had one full
year of drafting work in senior high school.
   Spring (2).

21. Descriptive Geometry. WAlling
   Fundamental principles of descriptive geometry and their application
to problems of engineering. Lectures and drafting. Prerequisites:
   Industrial Arts 3A or equivalent, and sophomore standing.
   Fall (2).

22. Machine Drawing. WAlling
   Design and drawing of simple machine parts with emphasis upon the
   production of standard drawings. Lectures and drafting. Prerequisite:
   Industrial Arts 21.
   Spring (2).

23. Materials of Construction. WAlling
   Structural properties and adaptability of materials used in engineering.
   Lectures. Prerequisite: Sophomore standing.
   Spring (2).

25. Elements of Electrical Engineering. WAlling
   Mathematical and descriptive consideration of electrical circuits
together with a general survey of the electrical industry. Lectures.
   Prerequisite: Mathematics 4A.
   Spring (3).

28. Elements of Heat Power Engineering. WAlling
   Fundamental consideration of fuels, combustion, steam, boilers, furn-
aces, chimneys, steam engines, steam turbines and auxiliaries, internal
combustion engines. Lectures. Prerequisites: Mathematics 3B, Physics
1B. Primarily for engineering students other than mechanical or elec-
trical.
   Fall (3).

Aeronautics Mechanics
   See detailed description of courses in Junior College Bulletin.

JOURNALISM

LOWER DIVISION COURSES

Journalism 51A-51B. News Gathering and Reporting. DICKHAUT
   Study of news sources and types; practice in news writing; newspaper
   organization; excursions and special lectures. Course planned for sopho-
   morens who have had English 1A-1B, with high school journalism or
equivalents.
   Year course (3-3).

Journalism 53A-53B. Applied Journalism. DICKHAUT
   Credit earned for editorial or other staff work throughout a full semes-
ter on student publications such as The Aztec, El Polenque, Del Sudoeste.
   Fall and Spring (1 to 3-1 to 3).

UPPER DIVISION COURSES

Journalism 100. News and Manuscript Editing. DICKHAUT
   Practice in copy reading, proof reading, headline writing, and newspa-
paper makeup. Study of editorial pages. Prerequisite: Journalism 51A-
51B, or equivalent in composition.
   Spring (3).
Journalism 153A-153B. Advanced Journalism Practice. DICKHAUT
Upper division work of the same type as that in 153A-153B, but with advanced requirements. Fall and Spring (1 to 3-1 to 3).
Note.—Not more than six units in all will be given for journalism practice on student publications.

LIBRARY SCIENCE
LOWER DIVISION COURSE

10. Use of the Library. STONE
The chief object is to give a working knowledge of some of the resources of the library which every teacher and student should understand—the decimal classification, the card catalog, periodical indexes, and the most important reference books, together with some instruction in the preparation of bibliographies. The course will be a requirement of those added to the library's staff of student assistants, although it will not prepare the student to become a librarian. Fall and Spring (1).

MATHEMATICS

Lower division preparation for the liberal arts major in mathematics and for the junior certificate: Mathematics 3A-3B, 4A-4B with an average grade of C or better; Economics 1A-1B; Physics 1A-1B or 2A-2B. With permission of the department, Mathematics 7A-7B may replace 3A-3B. Recommended: Astronomy 1, Mathematics 2, Surveying 1 and a reading knowledge of French or German. Students who intend to do work in mathematics beyond the A.B. degree should take either Mathematics 106 or 111 while in the lower division; for scholarship record required for taking upper division courses while in the lower division, see page 56.

Liberal arts major (upper division): Twenty-four units of upper division courses, with a minimum of eighteen in mathematics and a maximum of six in closely related fields, arranged in consultation with the chairman of the department and completed with an average grade of C or better.

For the academic teaching major or minor, most students will want to include either Mathematics 105 or 106 or both, also Mathematics 111. Candidates for the elementary or junior high school credential are urged to include the lower division course in Foundations of Arithmetic.

LOWER DIVISION COURSES

A, B, C, D, E, F, G, Introductory Mathematics. LIVINGSTON
Instruction and supervised study in elementary mathematics. Students who have taken these courses previously may take them for review. Others for the credit indicated. Courses A and D are equivalent to one and one-half years of algebra in high school; A, D and G to two years. Students regularly enrolled in courses C, D, E, F or G shall be expected to complete at least one course for credit; except that students who begin with an extensive review may withdraw without penalty before the time of the mid-term reports.

A. Algebra to quadratic equations (2).
B. Plane geometry (2).
C. Plane trigonometry (2).
D. Algebra beyond quadratics (1).
E. Solid geometry (2).
F. Spherical trigonometry (1).
G. Intermediate algebra (2).
Fall and Spring.

1A-1B. Elementary Analysis. LIVINGSTON
A general course including topics from algebra, trigonometry, analytic geometry and calculus. Intended for those not fully prepared to take the formal courses in analytic geometry and calculus. May be followed by the formal courses in analytic geometry and calculus. Prerequisites: Elementary algebra and geometry in high school, or Mathematics A-B. Year course (3-3).

2. Mathematics of Investment. WRIGHT
Interest and annuities; amortization; sinking funds; valuation of bonds; depreciation; mathematics of building and loan associations; mathematics of life insurance. Prerequisites: Trigonometry and two years of algebra in high school, or equivalents. Fall (3).

3A-3B. Analytic Geometry and Calculus. GLEASON, WALLING
Analytic geometry and differential calculus, together with an introduction to the integral calculus. Prerequisites: Trigonometry, plane geometry, and two years of algebra in high school, with recommended grades, or permission of the department. Year course (3-3).

4A-4B. Intermediate Calculus. GLEASON, LIVINGSTON
Integration, partial differentiation, infinite series and multiple integrals. Prerequisite: Mathematics 3A-3B, or 7A-7B. Solid geometry is strongly recommended. Year course (3-3).

7A-7B. Introduction to Analysis. LIVINGSTON
Trigonometry, analytic geometry, differential calculus, introduction to integral calculus. Prerequisites: Plane geometry and two years of high school algebra, or equivalents. Year course (4-4). (Not offered in 1936-1937.)

19. Foundations of Arithmetic. GLEASON
A connected idea of the subject of arithmetic. Beginning with counting, the number system is developed and the four fundamental operations are extended accordingly. Applications are made in the fields of commerce and science. Prerequisite: Sophomore standing. Spring (2).
UPPER DIVISION COURSES

105. Modern Geometry. LIVINGSTON
The geometry of the circle and the triangle. Prerequisite: Mathematics 3A or 7A.
Fall (3).

106. Projective Geometry. LIVINGSTON
The construction and study of conic sections; perspectives, poles and polars, and involutions. Prerequisite: Mathematics 3A or 7A.
Fall (3). (Not offered in 1936–1937.)

111. Theory of Equations. GLEASON
General solutions of algebraic equations; approximate numerical solutions; applications. Prerequisite: Mathematics 3A or 7A.
Fall (3).

112. Analytic Geometry of Space. GLEASON
Planes, lines, and quadric surfaces. Prerequisite: Mathematics 3A-3B or 7A-7B.
Fall (3). (Not offered in 1936–1937.)

113. Advanced Calculus. LIVINGSTON
Selected topics in advanced calculus, exclusive of differential equations. Prerequisite: Mathematics 4A-4B, or 4A with 4B taken concurrently.
Spring (3).

119. Differential Equations. GLEASON
Ordinary differential equations of first and second order, with applications. Prerequisite: Mathematics 4B or permission of instructor.
Spring (3). (Not offered in 1936–1937.)

140. Statistical Theory and Method. PERRY
Statistical theory and method from the mathematical standpoint; applications in social and natural science. Prerequisite: Mathematics 4A-4B, Economics 1A-1B and senior standing.
Spring (3).

199A-199B. Special Study. GLEASON, LIVINGSTON
An opportunity is offered for advanced work in algebra, geometry and calculus; or for study of vector analysis, theory of numbers, history of mathematics or teaching of mathematics. Adapted to the needs of individual students. Prerequisite: Mathematics 4A-4B and at least nine units of upper division courses in mathematics with an average grade of B.
Fall or Spring (1 to 3, each semester).

MUSIC

Candidates for a teaching credential in music should refer to the statement "Admission to Upper Division Teacher Training" on page 32 and to the other degree requirements on that page and those following. The curriculum for the A.B. Degree with a Special Secondary credential in Music is on page 46.

Candidates for a liberal arts major in music should refer to the details of that curriculum on pages 66, 59.
For information regarding majors and minors in music, and other details not found here, consult the Music Education Adviser.
For courses in Appreciation and History of Music, see Aesthetics, page 66.

LOWER DIVISION COURSES

1A. Music Reading and Ear Training—Fundamentals of Music. L. D. SMITH
Elementary music theory; scale construction; drill in music reading both with syllables and with words; ear training, elementary music dictation; the elements and materials of music. Basic course used as prerequisite for all advanced music work and for the courses in music education. Text—Gehrke's: Fundamentals of Music.
Fall and Spring (2).

1B. Music Reading and Ear Training. L. D. SMITH
Tonal and rhythmic dictation, rhythmic writing, sight singing with Latin syllables and with words. Text—Wedge: Ear Training and Sight Singing. Prerequisite: Music 1A, or the equivalent.
Spring (2).

1C-1D. Advanced Music Reading and Ear Training. L. D. SMITH
Tonal and rhythmic dictation, rhythmic writing, and sight singing in two and three parts. Text—Wedge: Advanced Ear Training and Sight Singing. Prerequisite: Music 1A-1B.
Year course (2-2).

4A-4B. Elementary Harmony. BIEDLEMAN
Scale construction, intervals, chords, structure, modulation, through various types of seventh chord. Special attention is paid to the keyboard application of problems in harmonization, transposition, and modulation. Prerequisites: Music 1A-1B, or the equivalent, and at least one year of piano study. Not open to freshmen.
Year course (3-3).

9A-9B*. Violin. BIEDLEMAN
Class instruction for beginners, intended to develop some facility in playing and a thorough theoretical and practical knowledge of the instrument. Especially intended as preparation for orchestral directing.
Year course (1-1).

19A-19B*. Instrumental Music. BIEDLEMAN
A composite course, including:
(a) Instrumental Ensemble. The practice and performance of music for small groups of string, wind, and brass instruments. Prerequisite: a fair amount of playing ability on some orchestral instrument.
(b) Instrumental Conducting. Theory and practice, with study of music materials and methods. Not open to freshmen. Prerequisite: Music 1A-1B.
Year course. Units: (a) alone, ½; (b), with (a), 1.
20r. Vocal Music. L. D. Smith

A general course open to all students. Mixed harmony in two, three, and four parts; voice quality; phrasing, interpretation, and enunciation considered in detail; study of song material suitable for junior and senior high school. Choral conducting.

Fall and Spring (1).

UPPER DIVISION COURSES

105A-105B. Advanced Harmony. Beideman

Completion of harmonic theory; modulation, inharmonic tones, etc. Continuation of harmonic analysis, and keyboard harmony. Melody harmonizing. Prerequisite: Music 4A-4B.

Year course (3-3).

106A-106B. Applied Harmony. Beideman

Including counterpoint, form and analysis, keyboard harmony, creative work, and instrumentation—theory and practice of arranging music for instrumental combinations. Prerequisite: Music 105A-105B.

Year course (3-3).

109r. Violin. (See Music 9.) Beideman

119r. Instrumental Music. (See Music 19.) Beideman

120r. Vocal Music. (See Music 20.) L. D. Smith

MUSICAL ORGANIZATIONS

(For music majors, credit allowed only in conjunction with Applied Music study. See below.)

11 or 111r. Treble Clef (Women’s) Glee Club. L. D. Smith

Membership based on competitive try-outs.

(1-1). (Not more than 4 units may be counted toward the A.B. degree.)

12 or 112r. Men’s Glee Club. Beideman

Membership based on competitive try-outs.

(1-1). (Not more than 4 units may be counted toward the A.B. degree.)

13 or 113r. Orchestra. Beideman

(1-1.)

14 or 114r. Band. Beideman

(1).

Applied Music

Credit in Applied Music is available only for students enrolled in music classes or organizations, and is subject to special permission and arrangement. Credit is not allowed for beginning work in Applied Music. Credits: 1 unit per semester, for not less than one lesson per week, with six hours of practice per week, totaling at least ten hours instruction and one hundred hours practice per semester. Applied Music is taken under outside private teachers, subject to the approval and supervision of the music department of the college, which determines credit value and grades by examination.

ORCHESTRAL INSTRUMENTS: Music 16 or 116r. Credit for study of an orchestral instrument is granted only upon satisfactory completion of work for an equal length of time in Music 19, 119, Instrumental Music; and/or Orchestra or Band.

VOICE: Music 17 or 117r. Credit granted only upon satisfactory completion of work for an equal length of time in Music 20, 120, Vocal Music and/or Glee Club.

PIANO (or Organ): Music 18 or 118r. Prerequisite: The ability to play satisfactorily hymns and folk songs of the type found in the Golden Book of Favorite Songs. Minimum attainment for completion of piano requirement in music curriculum is the ability to play at sight accompaniments such as are found in the Teachers Manuals of the Progressive Music Series, Books Three and Four.

PHILOSOPHY

LOWER DIVISION COURSES

5A. Introduction to Philosophy. Steinmetz

Elementary orientation: the persistent problems of philosophy, especially in epistemology, metaphysics, and ethics; the Republic of Plato and other systems. Prerequisite: Sophomore standing, or consent of instructor.

Fall (3).

5B. The Philosophy of Science. Steinmetz

The problems of philosophy systematized according to the main modern divisions of science; the achievements and perplexities of scientific fields; the nature and place of values in a universe of facts. Prerequisite: Philosophy 5A, except that sophomores planning to major in natural science may be admitted without prerequisite.

Spring (3).

UPPER DIVISION COURSES Steinmetz

105B, The Philosophy of Science.

Same as Philosophy 5B, save that upper division students will be held to more exacting contribution.

Spring (3).

120. Logic, and Philosophy of Mind. Steinmetz

Formal and functional logic; examination of reflective procedures in various fields; epistemological assumptions and traditional viewpoints, especially as illustrated in recent scientific writings; review of some psychological, experimentally supported explanations of thought. Prerequisites: Psychology 1A and Philosophy 5A.

Spring (3). (Offered in even-numbered years.)

* These courses are recorded by using letters with the number in alphabetical sequence for each semester the course is pursued, as for example, Music 9A, 9B, 9C, etc.
PHYSICAL EDUCATION

Men's Department

Candidates for a teaching credential in physical education should refer to the statement "Admission to Upper Division Teacher Training" on page 32.

LOWER DIVISION COURSES

A two-hour activity course each semester is required for the two years of lower division. A medical examination is given each student when entering and the work is fitted, as far as possible, to his needs. The content of the required two years is planned to give each student fundamental training in those sports which have carry-over value into after life. Opportunity is given all students to take part in the regular competitive sports program.

1A-1B. Freshman activity.

Year course, beginning either Fall or Spring (¼).

1C-1D. Sophomore activity.

Year course, beginning either Fall or Spring (¼).

Class sections are so arranged that the student may choose the activity he is most desirous of learning. Fundamentals of the sports listed are taught during the class hour.

2A-B-C-D. Golf. Spring (¼).

3A-B-C-D. Track. Spring (¼).

4A-B-C-D. Baseball. Spring (¼).

5A-B-C-D. Basketball. Spring (¼).

6A-B-C-D. Tennis. Fall and Spring (½).

7A-B-C-D. Boxing. Fall and Spring (½).

8A-B-C-D. Wrestling. Fall and Spring (½).

9A-B-C-D. Fall track. Fall (½).

10A-B-C-D. Swimming. Spring (½).

11A-B-C-D. Fencing. Fall and Spring (½).

13A-B-C-D. American football. Fall (½).


14A-B-C-D. Gymnastics. Spring (½).

The following courses fulfill degree requirements for physical education majors and meet state requirements for teaching credentials in physical education.

30. Emergencies.

C. E. Peterson

The accepted procedure in meeting the emergencies which daily arise in schoolroom, play or athletic field, beach, mountains, or any of the many places where the physical director is called on for first aid. Special attention given to the arrangement of the apparatus and the activities so that many of the most common accidents are prevented or minimized.

Fall (1).

54. Physical Education in the Elementary School (Men) gross

Physical education problems that arise in the everyday experience of the instructor in physical education and the classroom teachers, such as organization and administration of activities, health administration, classification of children for play activities, playground supervision, arrangement and care of equipment, and the like. Material presented in latest State Department Manual used as basis.

Fall and Spring (2).

62A. Gymnastic Activities. C. E. Peterson

Theoretical and practical work in marching, free exercises, and light and heavy apparatus. Emphasis on progression and method of presenting material. The simplest and most explanatory terminology.

Fall (2). (Offered in odd-numbered years.)

62B. Gymnastic Activities. C. E. Peterson

Acquisition of proficiency in the performance of a great group of gymnastic stunts always popular in the gymnasium and on the playground. Work of the recreational or self-interesting type rather than the formal. Tumbling, stunts, and pyramid-building given chief attention, although games of low organization are also considered.

Spring (2). (Offered in even-numbered years.)


C. E. Peterson

Thorough study of latest rules of modern major and minor sports.

Fall and Spring (1).

72. Principles of Physical Education. Calland

Cultivation of a favorable attitude for a professional study of physical education. Ideals and aims of physical education and the relation of physical education to school and society stressed.

Fall (2).

UPPER DIVISION COURSES

151. Health Education.

(CSee Women's Department.)

Fall and Spring (2).

154. Organization and Administration of Physical Education Gross

Material presented in Physical Education 54 plus general and specific problems that confront physical education departments in junior and senior high schools and in colleges. Prerequisite: Physical Education 72.

Fall and Spring (3).

155. Applied Anatomy. C. E. Peterson

Mechanics of the human skeletal and muscular-systems and their
actions in games, formalized activities, and general body movements; mechanical strength and durability as influenced by anatomical factors. Spring (2). (Offered in odd-numbered years.)

156A. Sports Methods.  C. E. PEET and STAFF
Different theories and methods of teaching the more highly organized sports: baseball, basketball, tennis, and track. Fall (2). (Offered in even-numbered years.)

156B. Sports Methods.  C. E. PEET and STAFF
Methods of teaching those sports most adaptable to intramural and interclass competition: golf, handball, soccer, speedball, and volley ball. Spring (2). (Offered in odd-numbered years.)

160. Technique of Officiating.  GROSS
Review of material presented in Physical Education 66. Methods of officiating all the sports common to the school or college program; also methods of training student officials. Practice in the handling of elementary, junior high, senior high and intramural competition. Spring (2).
56. Tennis. **Shafer, Bennett**
Required of sophomore women majoring in physical education.
(1).

57. Golf. **Schwob, Supervising**
Required of women majoring in physical education.
(1).

59. Archery. **Shafer**
Required of women majoring in physical education.
(1).

**UPPER DIVISION COURSES**

102. Emergency and Safety Programs. **Shafer**
Means by which the number of accidents, especially among children, may be reduced on street, playground, or at home; practical application of first aid methods. Of value to classroom teachers as well as to specialists in physical education.
(1).

151. Health Education.
A course for teacher-training students which includes the study of the diseases, common physical defects, and health indices of school children; the detection and control of communicable diseases which may appear in the school; and the elements which underlie a health education program. Methods of presenting personal and group health to children of different ages. Hygiene of the schoolroom, such as seating, lighting, and ventilation.
Fall and Spring (2).

153. Administration of Secondary Physical Education.
Study of department organization and procedures with practical experience in administration. The college department and high schools serve as laboratories. Open only to seniors majoring in physical education.
(2).

A study of the movements of the human body with especial reference to the physical activities and capacities of girls and women.
(2).

157A-157B. Sports Methods. **Shafer**
Practice for skill, study of rules, and of coaching methods. Prerequisites: A season's experience in at least four of the following sports—volleyball, basketball, hockey, speedball, soccer, baseball.
Year course (2-2).

158. Stunts and Tumbling. **Bennett**
A practical course in personal technique. Progressive series of individual, dual, and group stunts, including simple pyramids.
(1).

160. Principles of Teaching Gymnastics. **Schwob**
Gymnastic materials and methods followed by practice in teaching marching gymnastics and apparatus.
(2).

161. Folk Dancing. **Schwob**
Practice in folk and clog dancing. Methods of presentation and study of costumes and customs related to the dance. Notebooks required. Open to all upper division women.
(2).

164. Natural Dancing. **Schwob**
Practice in natural dancing, including free rhythms, simple dance forms and creative dancing. Open to all upper division women. Prerequisite: Physical Education 36A.
(2).

169. Technique of Teaching Activities. **Schwob**
Obervation, lesson planning, and teaching of college classes.
Fall and Spring (3).

170. Recreational Leadership. **Shafer and Assistants**
Fundamentals of recreational leadership developed by instruction in Scout craft, Camp Fire lore, Girl Reserve activities, the study of school recreational needs and facilities, and of civic recreation. Open to all upper division women. Recommended to students interested in the recreational aspects of social service.
(2).

173. Principles of Physical Education.
The relation of physical education to other phases of education, with emphasis upon health and social adaptation.
(2).

175. Current Problems in Physical Education. **Schwob**
The latest phases of general physical education; problems particularly related to the work with younger children, girls, and college women; the responsibility of the physical instructor toward emergencies and health service. Open only to seniors majoring in physical education.
(2).

177. Individual Program Adaptations. **Schwob**
Adjustments of the physical education program to the physical needs and capacities of individuals; problems concerning protective and preventive measures which are not highly specialized corrective phases.
(2).

178A-178B. Camp Fire and Girl Scout Leadership. **Schwob**
The principles and procedures fundamental to leadership in these two important organizations for girls taught by authorized local directors. Open to all students.
A. Camp Fire Leadership (1).
B. Girl Scout Leadership (1).
185. Technique of Individual and Dual Sports and Games.

A course summarizing rules, teaching methods, and individual playing ability. A required senior course. Can not be taken until all requirements regarding sports and games have been fulfilled. (See page 115.)

(3).

PHYSICAL SCIENCE

1. Introductory.

A survey course dealing with the nature of man's physical universe. The subject matter covered includes work in fields of astronomy, chemistry, geology, and physics; chosen to provide a background for present-day physical science thought. Not open to students who have taken high school or college physics and chemistry or three courses in high school or college physical science including either physics or chemistry.

Fall and Spring (3).

PHYSICS

Lower division preparation for the liberal arts major in physics and for the junior certificate: Physics 1A-1B; 1C-1D; Mathematics 3A-3B and 4A-4B, or their equivalents. Recommended: A reading knowledge of French and German.

Liberal arts major (upper division) in physics, required: Twenty-four units of upper division work in physics including Physics 105A-105B and 107A-107B. Six of the twenty-four units may be elected in related subjects on consultation with the chairman of the department.

For requirements for liberal arts major in physical science, see pages 56, 59.

LOWER DIVISION COURSES

1A-1B. General.

Mechanics, properties of matter, and heat. A development of the fundamental ideas which underlie the subject of physics, and the application of them in the discussion of practical problems. Lectures, text assignments, problem sets, and experimental laboratory work. Two lectures and one laboratory period each week. Prerequisites: High school physics or chemistry and trigonometry.

Year course (3-3).

1C-1D. General.

A continuation of Physics 1A-1B for students in the sophomore year, including magnetism, electricity, sound, and light. Two lectures and one laboratory period each week.

Year course (3-3).

2A-2B. General.

Properties of matter, mechanics, heat, sound, light, electricity, and magnetism. A non-engineering course. Lectures, demonstrations, and discussions. Prerequisite: Two years of high school mathematics.

Year course (3-3).

3A-3B. Physical Measurements.

Laboratory work in mechanics, properties of matter, heat, sound, light, electricity, and magnetism. Usually taken in conjunction with Physics 2A-2B.

Year course (1-1).

UPPER DIVISION COURSES


Moe

Treatment of fundamental principles of statics, kinematics and dynamics of particles and rigid bodies. Prerequisites: Physics 1A-1B or 2A-2B and a working knowledge of calculus.

Year course (3-3). (Offered in even-numbered years.)

106. Optics.

Baird

Refractive, color, interference, diffraction, polarization, radiation, and optical instruments.

Fall (3). (Offered in even-numbered years.)


Baird

Devoted mainly to the study of potentiometer methods, capacity, inductance, resistance, and magnetic flux. Two lectures and one laboratory period each week. Prerequisites: Eight units in physics.

Year course (3-3). (Offered in odd-numbered years.)

108. Modern.

Baird

An introductory survey of the problems of modern physics. Theories of atomic structure and series in optical spectra, radioactivity, conduction of electricity through gases, radiation and the quantum theory. Prerequisite: Eight units in physics.

Spring (3). (Offered in odd-numbered years.)

112. Advanced Heat.

Moe

Thermal properties of matter. An introduction to the kinetic theory of gases and the laws of thermodynamics. Prerequisites: Eight units in physics and a working knowledge of calculus.

Spring (3). (Offered in even-numbered years.)

114. Wave Motion and Sound.

Moe

A study of wave motion and its applications to sound production and transmission. The principles of musical instruments and architectural acoustics.

Prerequisite: Eight units in physics.

Fall (3). (Offered in odd-numbered years.)

199. Special Study.

Baird, Moe

Reading or work on special problems in physics. Admission by consent of the instructor. Credit and hours to be arranged in each case. Open to students who have completed at least eight units of work in the department with grade of A or B.

Fall and Spring (1 or 2—1 or 2).

POLITICAL SCIENCE

Lower division preparation in political science for advanced work and for the junior certificate: Political Science 1A-1B and Economics 1A-1B.
or History 4A-4B. High school civics is presupposed in the following courses:

LOWER DIVISION COURSES

1A-1B. Comparative Government. LEONARD
A comparative study of typical governments. Semester I: England, France, and Switzerland. Semester II: Italy, Germany, Russia, and Japan.
Year course (3-3).

UPPER DIVISION COURSES

101. American Institutions. LEONARD
Origins and principles of the United States Constitution, and a survey of the political institutions which have developed under its guidance. Prescribed by the State law for all candidates for the bachelor's degree. Enrollment is limited to juniors and seniors, except with the consent of the instructor. Attention is called to the fact that this course is offered only during the Fall semester.
Fall (2).

111. Theory of the State. LEONARD
The nature of the State, its organization and activities, and its relation to individuals and to other states.
Fall (3).

113. American Political Ideals. LEONARD
Underlying theories and principles of American governmental policy.
Spring (3).

151. Governmental Organization in the United States. LEONARD
Origins; the federal system; organization, powers and functions of the executive, legislative, and judicial branches of the National government and expansion of its activities; the party system.
Fall (3). (Not offered in 1936-1937.)

152. Popular Government in the United States. LEONARD
Development of the means for democratic control of government in the United States: the history, motivation, methods and control of political parties; party machines; election systems; influence of minority groups; the lobby; the press.
Spring (3). (Not offered in 1936-1937.)

PSYCHOLOGY

Lower division preparation in psychology for advanced work and the junior certificate. Required: Psychology 1A-1B, Zoology 1A-1B, or Biological Science 10A-10B, Philosophy 5A-5B. Recommended: French, German, chemistry, physics, and anthropology.

LOWER DIVISION COURSES

1A. General. BELL, STEINMETZ
An elementary survey of normal adult psychology, focused upon personality; the subjective and objective aspects of behavior. Furnishes basis for all other courses in psychology. Prerequisite: Sophomore standing.
Fall and Spring (3).

1B. General. BELL, STEINMETZ
A continuation of general psychology designed to familiarize the student with (1) elementary experimental methods, (2) famous experiments in psychology, and (3) some one topic (not included in upper division courses) in which he pursues an independent experimental approach. Prerequisite: Psychology 1A.
Spring (3).

4A. Applied. BELL
Applications of psychology to problems of the individual in learning, making social adjustments, choosing a vocation, developing desirable personality traits, and achieving success and happiness. Survey of psychology as applied in education, music, art, speaking, writing, law and medicine. Prerequisite: Psychology 1A. Recommended: Psychology 1B.
Fall (2).

4B. Psychology Applied in Business. BELL
Applications of psychology to a wide range of problems encountered by the man in business. Motives, attitudes, habits, and traits in their relation to behavior of employer, employee, and executive. Advertising, salesmanship, and problems of selecting, placing and increasing the efficiency of employees. Business cycles, and business research. Prerequisite: Psychology 1A. Recommended: Psychology 1B.
Spring (2).

UPPER DIVISION COURSES

102. Genetic (Growth and Development of the Child). BELL, STEINMETZ
The mental and physical growth and development of the child, especially with relation to norms of structure and function. Diagnosis of individual children by comparison with norms. Behavior problems and the growth of personality traits as conditioned by physical and mental factors. An intensive study of one child presenting a problem of physical or mental maladjustment made by each student. Prerequisite: Psychology 1A. Recommended: Psychology 1B.
Fall and Spring (3).

105. Mental Testing. BELL
A brief history of intelligence testing and the fundamental assumptions underlying the construction of tests. The Stanford revision of the Binet-Simon test illustrated by demonstrations. Each student required to give at least 20 individual tests. Group intelligence tests discussed and demonstrated. Prerequisites: Psychology 1A and Education 108. Recommended: Psychology 1B, 102, Education 140.
Fall (3).

118. Mental Hygiene. BELL
Designed primarily for teachers, nurses, physicians and social workers. Problems, personality adjustment, emotional problems, attitudes, conflicts, neurotic behavior, conduct disorders of both child and adult.
work and mapping each week. Prerequisites: Trigonometry and Industrial Arts 3A, or equivalent, and sophomore standing. Year course (3-3).

3. Summer Class in Surveying.

Practical field problems in reconnaissance, triangulation, location and topographic surveys. Observations for meridian, time and latitude. Precise work in linear and angular measurements. Development of self-reliance, accuracy, and professional skill on the part of the student. Four weeks course held in the mountains near San Diego. For details regarding location of camp, date of registration, date of opening, and other arrangements, a special announcement of the surveying camp may be secured at the Registrar's Office. Prerequisite: Surveying 1A-1B. Summer (3).

ZOOLEGY

(See Biological Sciences)

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The beginnings of undesirable attitudes and habits and methods of treating them are stressed more than serious cases of maladjustment which are either incurable or problems for a psychiatrist. The methods of building wholesome personality are emphasized more than the analysis of extreme disorders. Prerequisite: Psychology 1A. Recommended: Psychology 1B, 102.

Fall (2).

120. History of Psychology. Bell, Steinmetz

Historical development of psychology out of mental philosophy; sensationism; the body-mind problem; associationism; structuralism; functionalism; rise of the schools and experimental procedures. Prerequisites: Psychology 1A, 1B.

Fall (2). (Offered in even-numbered years.)

140. Contemporary Psychology. Steinmetz

Psychoanalysis, behaviorism, and Gestalt psychology; the modern eclectic viewpoint; non-Aristotelian speculation; factor analysis; characteristic British, French, German, and American contributions; outstanding problems, publications and fields. Prerequisites: Psychology 1A, 1B, 120, or other upper division work in the department provided instructor and head of the department consent.

Spring (2). (Offered in odd-numbered years.)

145. Social. Bell

Personality as it develops in relation to social environment. Suggestion, imitation, leadership, the crowd, public opinion, social control, prejudice, propaganda, sex differences, race differences, etc. Prerequisite: Psychology 1A. Recommended: Psychology 4B.

Spring (2). (Offered in odd-numbered years.)

Educational Psychology. See Education 130.

Educational Measurements. See Education 108.*

SPANISH

(See Foreign Languages)

SPEECH ARTS

(See English)

SURVEYING

LOWER DIVISION COURSES

1A-1B. Plane Surveying. Gleason

Use and adjustment of surveying instruments, computations and mapping, together with a study of land, topographic, city, and mine surveying. Two instruction periods and one three-hour period for field

* Students taking a curriculum in which Education 108 is required, must substitute another three-unit course in education, if they wish to count Education 108 in a psychology minor.
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