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STATE TEACHERS COLLEGE OF SAN DIEGO

Administered Through

DIVISION OF NORMAL AND SPECIAL SCHOOLS

OF THE

STATE DEPARTMENT OF EDUCATION

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FACULTY

EDWARD L. HARDY, President. School Administration. B.L., University of Wisconsin; M.A., University of Chicago; LL.D., LaVerne College; Study of European secondary schools, 1898-1899; Principal San Diego High School, 1906-1910. (Appointed September 1, 1910.)

IRVING E. OUTCALT, Vice President and Professor of English. Student, University of Illinois; A.B., Stanford University; M.A., Stanford University; graduate student, Stanford University; Head Department of English, San Diego High School; travel in Europe, 1910-1911; research work, Stanford University, 1921-1922. (Appointed September 1, 1912.)

WILLIS E. JOHNSON, Dean of Education. Director of Summer Sessions. Professor of Education. Graduate of State Normal School, St. Cloud, Minnesota; B.B., A.M., Illinois Wesleyan University; A.B., A.M., Ph.D., University of Minnesota; S.C.D., South Dakota State College; L.L.D., Dakota Wesleyan University. Taught in rural, village and city schools, state normal schools and universities. President of State normal schools at Elkhorn, North Dakota, and Aberdeen, South Dakota, and of South Dakota State College, Brookings. Member of the educational surveys of Virginia and Alabama. (Appointed April 1, 1924.)

ARTHUR G. PETERSON, Dean of Liberal Arts, ex officio in general charge of lower division studies. Professor of Economics. A.B., College of the Pacific; M.A., Stanford University; Vice Principal San Diego High School and Director of Junior College, 1919, 1920, 1921. (Appointed September 1, 1921.)

MRS. AMAL HUGHES COLWELL, Dean of Women. Student Hopkins Art School, San Francisco; Special Study in Europe; Grade Teacher, Alameda, California, six years; Student California Medical College, San Francisco; Licensed Pharmacist, State of California; special study, Columbia University; Head of Home Economics Department, University of Montana, Summer Session, 1915. (Appointed Head of Home Economics Department September, 1907; appointed Dean of Women June, 1915.)

GEORGIA C. AMSEND, Assistant 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, 1918; traveling representative and secretary for the Federal Board for Vocational Education, France, World War; in charge of stenographic Division, Department of Personnel, American Red Cross Head-quarters, Paris, World War; Secretary, Standard Life and Accident Insurance Company, Detroit, Michigan; Assistant editor and reporter, Ypsilanti, Michigan Daily Press; Instructor, San Diego High School, 1909-1924. (Appointed September 1, 1925.)

J. W. AULT, Principal of the Training School and Associate Professor of Education. Undergraduate work at Miami University and Valparaiso University. B.S. Graduate work at the University of Iowa and the University of South Dakota. M.A. Superintendent of city schools twelve years; conductor and instructor in teachers institutes; professor of Education at Southern State Teachers College, Springfield, South Dakota, 1922-1924. (Appointed September 1, 1925.)

RUTH G. BAGLEY, Assistant Professor of English. A.B., University of Michigan; A.M., University of California; graduate study, University of Illinois and Columbia University; Head Department of English, State Normal School, Oshkosh, Wisconsin; Instructor, San Diego Junior College, 1919-1921. (Appointed September 1, 1921.)

O. W. BAILEY, Associate Professor of Physics. A.B., University of Wisconsin; M.A., University of Minnesota; graduate study, University of Minnesota. (Appointed September 1, 1921.)


MRS. GERTRUDE SUMPTON BELL, Associate professor of Psychology, Tests and Measurements. A.B., Indiana University; M.A., Stanford University; graduate Indiana State Normal School; research work, Clark University; Assistant in Education and Director of Practice Teaching, University of Colorado; State Institute Lecturer, Montana; Instructor, School of Education, Indiana University. (Appointed August 1, 1916.)
RICHARD S. McINTYRE. Assistant Professor of Engineering. B.S. (Mining); M.S. (Petroleum Engineering) University of California; Mining Engineer, Burma Mines Ltd., Burma, India, 1918-1919; Mining Engineer, Burma Mines, Ltd., Bengal, India, 1918-1919; Mining Engineer, Chemical and Mining Foreman, General Mines, Ltd., Nicaragua, C. A., 1919-1921; Mine examination work, California and Old Mexico; Senior Instructor University of California, Mining and Petroleum Engineering, 1922-1926; Petroleum Engineer, Standard Oil Company of California; oil well research, U. S. Bureau of Mines, Colorado; Head of Science and Mathematics Department, Taft High School and Junior College, 1926-1927. (Appointed July 1, 1927.)

MARY RANKIN MOON. Fine Arts. A.B., University of California. Student at San Diego State College and Colorado Springs Academy of Fine Arts. (Appointed September 1, 1926.)

ABRAHAM P. NASATJE. Assistant Professor of History. A.B., M.A., Ph.D., University of California; Assistant Teaching Fellow in History, University of California, 1920-1924; Active Sons Traveling Fellow in History in Europe, 1924-1925; Instructor in History, University of State of Iowa, 1926-1927.

WILLIAM L. NHIA. Associate Professor of Education, Supervisor of Public School Practice. Teaching and Appointment Secretary, B.P., Ohio State University; graduate student, University of Chicago; M.A., University of Southern California; Principal of Ohio High Schools, nine years; Superintendent of Schools, California, two years. (Appointed July 1, 1927.)

CHARLES E. PETERSON. Assistant Professor of Physical Education. Director of Physical Education for Men; student at Oregon Agricultural College; the two years under Robert Kloth. Director of Physical Education, Y. M. C. A. Physical Education System. (Appointed July 1, 1927.)

WALTER T. PHILLIPS. Assistant professor of Spanish and French. A.B., University of Washington; M.A., Stanford University; teaching assistant in Spanish and University, University of California; Assistant Professor of Modern Languages, Willamette University. (Appointed September 1, 1927.)

LEO FRANCIS PIERCE. Professor of Chemistry. B.S., Grinnell College; M.Sc., Instructor, University of Idaho; Professor of Chemistry, Washburn College; M.A., Stanford University; University of Illinois; Deutsche Chemische Gesellschaft; Lecturer in Chemistry. (Appointed September 1, 1923.)

ALICE M. RAW. Physical Education. A.B., University of Southern California; graduate student, University of Southern California; four summer sessions. (Appointed September 1, 1923.)

MABEL M. RICHARD. Training Supervisor and Assistant Professor of Education. B.S., and A.M., University of Southern California; graduate student, University of Southern California; six years; Supervisor of Mathematics, Training Schools, University of Southern California; Missouri State Teachers College, two years. (Appointed September 1, 1927.)

CHARLES R. SCudder. Associate Professor of Industrial Arts. University of Illinois, State Normal School, Bellingham Washington; A.B., State Teachers College of Rapids, Michigan; Director, Industrial Arts at Evanston, Illinois; Muncie, Indiana; State Normal School, Bellingham, Wash. (Appointed September, 1918.)

W. T. SKILLE. Associate Professor of Astronomy. University of California; Los Angeles, California; University of California; Assistant Professor, University of California; University of California; five years. (Appointed September 1, 1901.)

FLORENCE L. SMITH. Associate Professor of English. A.B., Northwestern University; M.A., University of Chicago; Instructor, State Normal School at Oshkosh, Wisconsin. (Appointed July 1, 1917.)

LEILA D. SMITH. Associate Professor of Music. Mus. B., A.B., Oberlin College; A.M., Columbia University, 1928; formerly Head of Department of Music, State Teachers College, Winona, Minnesota. (Appointed September 1, 1922.)

MARIAN PECK SMOTHERS. Training Supervisor and Assistant Professor of Education. A.B., M.A., Stanford University; Teacher in Public Schools; Assistant in History, Stanford University; Dean of Women, State Normal School, Cheney, Washington; Frances W. Parker School, San Diego, California. (Appointed September 1, 1923.)

WILL J. STANTON. Commercial Law. B.L.B., University of Michigan; graduate study, University of Michigan; editor legal journal, fourteen years; practicing Attorney, Michigan and California; Instructor, San Diego High School and Junior College. (Appointed September 1, 1921.)

S. LAVERNE STUCKEY. Assistant Professor of Engineering. Student University of Texas, 1885-1886; 1887-1888; B.S. in Electrical Engineering, University of California, 1924. Five years with the General Electric Company; five years Chief Engineer of Mt. Whitney Power and Electric Company; three years on Irrigation Engineering; four years Efficiency Engineer in the oil fields of California. (Appointed September 1, 1924.)

ALVINA STRAUH. Geography. B.A., University of California; Teaching Fellow and graduate student two years, University of California; teacher in public schools two years. (Appointed September 1, 1926.)

JESSIE RAND TANNER. Associate Professor of Physical Education. B.S., Columbia University; Graduate in Normal School of Gymnastics; Bachelor's Teaching Diploma, Teachers College, Columbia University; tutor, Brookline, Massachusetts; graduate student, University of California, 1926; Supervisor of Physical Education, San Diego County Rural Schools, 1921-1923. (Appointed July, 1904.)


W. H. WRIGHT. Assistant Professor of Commerce. B.S., University of California; graduate student, University of California; Assistant Professor of Commerce, Union High School, Visalia, California, 1927-1921. (Appointed September 1, 1921.)

SPECIAL LECTURERS

WILLIAM H. RABROW. Public Health. A.B. and M.D., Harvard University. Formerly Professor of Physical Education and Associate Clinical Professor of Medicine, Stanford University.

LYMAN BRYSON, A.M., Director of San Diego Museum. Journalist, Editor of publications of International Red Cross; Part-time Professor of Anthropology, State Teachers College of San Diego.

CONSTANTINE PANIUKO. Ph.D., Sometime Fellow in Social Research, New York University; Fellow in Social Economics at the Brookings Graduate School, Washington, D. C.; part-time Professor of Sociology, State Teachers College of San Diego.

REGINALD POLAND. A.M., Director of San Diego Fine Arts Gallery.

RALPH MORRIS. A.B., Assistant Director San Diego Fine Arts Gallery.


INSTRUCTORS

JOHN R. ADAMS. English. A.B., M.A. University of Michigan. Instructor in Rhetoric, University of Michigan, 1920-1923; Associate in English, University of Washington, 1925-1928. (Appointed September, 1929.)

*On leave of absence, 1928-1929.
HAROLD G. BRUCKER, Physical Education for Men. Coach of baseball and freshman football. Student at University of Redlands; basket ball coach, U. S. Naval Training Station; basket ball coach, Y. M. C. A., San Diego. (Appointed September 1, 1927.)

HELEN LOIS DALE, Biology. A.B. and M. A., Stanford University. Teaching assistant in Biology, Reed College, 1923-1924; instructor in Zoology, Mills College, 1924-1925; graduate student and assistant in Biology, Stanford University, 1926-1928; acting instructor in Biology, Stanford University, spring, 1928. (Appointed September 1, 1928.)

F. W. DESELING, Industrial Arts, California Institute of Technology; University of California at Los Angeles; B.A., San Diego State Teachers College (Appointed September 1, 1927.)

WALTZE KAULFERS, Methods of Teaching Modern Languages. A.B., San Diego State College; M.A., Stanford University; Instructor in Spanish, La Jolla High School.


THOMAS F. MCMULLEN, Coach of Basketball. Student and coach of freshman basketball, Oregon State College; instructor at Francis Parker School.


EGLE R. PARKER, Speech Correction. Specialist in Division of Special Education, California Department of Education.

DOROTHY H. ROBINSON, Chemistry, B.S.C., in Sugar Engineering, University of Louisiana; Audubon Sugar School, 1927; Chemist, Bio-Science, 1925; Chemist, Ruceland Sugar Factory, 1926; Chemist, State Sugar House, Louisiana, 1927; Research Chemist, Thornley and Company, 1927-1928; Chief Chemist, Pacific Marine Chemicals, Inc., 1928. (Appointed September 1, 1928.)

Medical Examiners

FRANCES ALLEN, M.D., Medical Examiner and Adviser of Women.

DEWEY H. WALDEN, M.D., Medical Examiner and Adviser of Men.

CALENDAR 1929-1930

Summer Sessions, 1929.
Term I, six weeks, June 24-August 2.
Term II, four weeks, August 4-26.

Fall Semester, 1929-1930.
September 4, 8:00 a.m., College Aptitude Test.*
September 4, 1:30 p.m., Assembly of New Students.
September 5, 8:00 a.m., Examination in Subject A (English Composition).
September 5, 10:30 a.m., Assembly of New Students.
September 5, 1:30 p.m., Fundamentals Test;*
September 5, 7:30 p.m., Reception to Freshmen.
September 6, 8:30 a.m., to 4:00 p.m., Registration of Old Students.
September 7, 8:30 a.m. to 4:00 p.m., Registration of New Students.
September 10, Class Work Begins.
November 11, Legal Holiday.
November 28, 29, Thanksgiving Reces.
December 14, Christmas Reces Begins.
December 23, 29, 30, Class Work Resumes.
January 22, 1930, May Law Examinations Begin.
Dec. 30, 1929, Graduation Exercises.

Spring Semester, 1930.
January 30, 8:00 a.m., College Aptitude Test.*
January 30, 1:30 p.m., Assembly of New Students.
January 31, 8:00 a.m., Examination in Subject A (English Composition).
January 31, 10:30 a.m., Fundamentals Test;*
January 31, 1:30 p.m., Reception to Freshmen.
January 31, 8:30 a.m. to 4:00 p.m., Registration of Old Students.
February 1, 8:30 a.m. to 4:00 p.m., Registration of New Students.
February 5, Class Work Begins.
April 12-20, Spring Reces.
May 1, Dedication Day.
May 1, Legal Holiday.
June 5-12, Final Examinations.
June 13, Annual Commencement Exercises.

Summer Sessions, 1930.
Term I, six weeks, June 23-August 1.
Term II, four weeks, August 4-28.

HISTORICAL SKETCH

The State Teachers College of San Diego, usually designated the San Diego State College and formerly known as the State Normal School of San Diego, was established by legislative enactment March 13, 1897, and received its first class in the autumn of 1898. In April, 1921, the school, together with all of the California normal schools, received by act of the legislature, later approved by the Governor of the state and becoming effective July 25, 1921, the designation of State Teachers College, its full legal title being, "State Teachers College of San Diego." In June, 1921, under an enactment of the legislative session of the same year, known as the "Junior College Law," the San Diego Junior College was merged with the State Teachers College of San Diego. Under the arrangement thus made, collegiate courses of the lower division (freshman and sophomore years) have been offered, both to students preparing for the work of the upper division (junior and senior years) of colleges and universities and to students preparing themselves for the teaching service in the new three- and four-year curricula recently established by the State Board of Education. The four-year curricula leading to the degree A.B. (major in Education) were established for this institution June 30, 1923.

Since July 1, 1927, the courses formerly carried as "junior college" courses have been offered as lower division courses of the regular three- and four-year curricula.

On July 12, 1928, the college was authorized, by the State Board of Education, to offer intermediate and curricula with majors in Chemistry, History, English and

*Required of all students, not as a prerequisite for entrance but for purposes of guidance. Former graduates of this college and graduates from approved four-year college courses are exempt. A physical examination, a speech test and a social relations test are also required. The first two are given individually and students will make special appointments for them. The social relations test is given after college work has well started at an announced date.

This is a prerequisite for the following courses in Education: I. CXXXVIII, CIV, CVIII and CXVI. Former graduates of this college and graduates from approved four-year college courses and holders of California teaching credentials are exempt.
THE CALENDAR AND REGISTRATION

The college year is divided into the autumn and spring semesters of eighteen weeks each, followed by a summer quarter consisting of a first term of four weeks and a second term of four weeks. Students may enter at the beginning of either semester and at the beginning of either summer term.

The Summer Session meets the needs of married students who wish to earn credits toward the professional diploma or the A.B. degree, of teachers in service who wish to further professional training, and of liberal arts students who wish to secure supplemental credit or to shorten the time for completion of work for the Junior Certificate.

Registration of students will be made September 6 and 7. A duly certified transcript of the applicant's record must be in the possession of the Registrar on or before August 20 of the year of the applicant's registration.

X. B. — For details, see "Requirements for Admission."

DEPARTMENTS OF INSTRUCTION

Teacher Training

The College offers courses for the training of teachers in both the primary and upper divisions of the elementary school and in the Junior High School with special recommendation in English, Social Science, Natural Science, Mathematics, Fine Arts, Industrial Arts, Music, and Physical Education. The degree B.A. is granted to students completing the four-year courses in elementary and junior high school subjects and in the liberal arts (excepting those mentioned above).

Special degree certificates of secondary grade are offered in Art and Physical Education.

Students who wish to enter for special certificates should not fail to note the matriculation requirements.

Liberal Arts

In the Liberal Arts division courses are offered in the following fields: Anthropology, Economics, Engineering, English, Foreign Language, Geography, History, Philosophy, Psychology, Chemistry, and Zoology.

Descriptions of the courses in both the professional and the collegiate field, with complete information as to admission requirements, will be found on the pages following under the headings "Admission," "Curriculum," etc.

STANDARDS OF HEALTH, SCHOLARSHIP AND CHARACTER

All entering students will be required to meet the health standards set by the department of physical education, and all lower division courses, unless excused for cause, will be required to take the courses in physical education prescribed for 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 how he stands; but the ability of the student to manage his own educational career in his final ratings.

Standards of character, as developed by and measured by honest student work, community feeling, particularly as to ideals in the important matters of citizenship and future parenthood, are more necessary than all else. Every student who how to develop character.

For the assistance of students and student organizations, advisories have been established as follows:

THE STUDENT ADVISERS

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

Concerning commitments to teaching positions.—The Appointment Secretary.

Concerning housing and living arrangements of students, rules of conduct, student social affairs, personal advice (women), rules of attendance, etc.—The Dean of Women.

STUDENT LIFE AND ORGANIZATIONS

Student affairs, and organizations to foster them, are many and varied, but are well coordinated through the student body organization, The Associated Student Body. The following list indicates the major activities:

Kappa Delta Pi (National Education Honor), Delta Kappa Epsilon, Epsilon Kappa Phi, Zeta Phi Beta, Phi Alpha Delta (Law School), Pi Delta Phi (Honorary), Phi Delta Phi (Engineering), Phi Eta Sigma (Men's Social), Phi Pi (Women's Social), Phi Delta Theta (Men's Social), Tau Epsilon Phi (Men's Social), Phi Lambda Xi (Men's Social), Lambda Alpha (National Biology Honor), Omicron Delta Kappa (National Science Honor), Sigma Chi (Men's Social), Sigma Nu (Men's Social), Sigma Phi Beta (Women's Social), Tau Zeta Phi (Men's Social), Omicron Xi (Men's Social), Xi Phi (Men's Social), and Chi Epsilon (Women's Social).

Each organization has its own constitution, officers, and activities. Information on these organizations can be obtained from the Student Body Office or from individual members.

APPOINTMENT SERVICE

The department of recommendations has the charge of the placement of graduates, assisting them in securing teaching positions and assisting development of boards of school trustees in finding qualified teachers.

Recommendations are based on records which indicate every item in the candidate's equipment and particular care is taken to select for nomination in each case a teacher who can meet the requirements of the position.

FEES AND COURSE CHARGES

English, Subject A. $8.95
Philosophical (weekly) test. $0.50
College Aptitude test (Thorndike). $1.00
Fee for additional transcript. $2.00
Special examination. $2.00
Library deposit ($1.00 refundable). $2.00

EACH SEMESTER

Payable at Time of Registration

Registration fee $8.50
Part-time (less than six units) registration fee. $2.00
Late registration fee (penalty). $2.00
Syllabus $1.00
Towel or tie (men and women). $1.00
Locker (Physical Education or Art). $1.00
Art 12A, 61A, 91A, 152A. $2.00
Chemistry 1A-1B, 61A, 64A, 81B, 8-9. $2.00
Chemistry 101-102. $2.50
Chemistry 121-122 (per hour). $2.50
Chemistry deposit (each course). $3.00
Education (CVTH). $1.50
Geography 1, 1A, 2, 2A, 116D, 117, 211, 124, 141. $1.50
Geography 3 (Meteorology). $3.00
Geography 1B (Geography). $3.00
History 1A-1B. $1.25
Industrial Arts 1A, 1B, 61B. $2.00
Industrial Arts 4. $3.00
Industrial Arts 1A-1B, 61A, 61B. $3.00
Mineralogy 1A-1B, 2. $3.00
Mineralogy deposit. $3.00
Music 2A-2B, 3A-3B. $1.00

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

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

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

Concerning relations to the training school, to pupils, routine, etc.—The superintendents of training.

Concerning student-body affairs.—The executive officers of the student-body.

The Dean of Liberal Arts; The Dean of Women.
OPPORTUNITIES FOR CULTURE AND RECREATION

Environmental conditions other than the physical ones must be taken into account by the student choosing a college. In cultural standards in art, music, literature and science, San Diego is eligible college city. Because while it is a large city in population, resulting from the San Diego Exposition of 1915-16, it has certain metropolitan advantages for the student. Many of these are to be found in 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. Housed 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 archeology, the study of American ethnology, and the development of a Public Conservatory of Music for which the great out-of-door organ furnishes a beautiful setting. Balboa Park, in which all of these facilities are located, contains a modern horticultural farm and a great stadium for gymnasium use, community gatherings and pageants.

Outside the city limits, the Scripps Biological Institute, operated by the University of California, gives opportunity for important cooperation in the field of oceanography.

The courses in commerce and other branches of economics will be considerably aided by Sand 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 professional, teacher-training courses profit 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 schools, junior high schools, 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.

Much of what is best in modern thought and influences is brought to the student body through its weekly assembly, the programs for which, as arranged by a committee of students and faculty, include almost every type of music and appeal.

ROUTINE AND PROCEDURE

Outside of the necessary routine and procedure in the conduct of registration, classes, exams, and in the conduct of examinations, etc., college affairs are controlled by standards which are the result of experience or which reflect a very definite public opinion. There are some controls. 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. Men and women are expected to conduct and control affecting the student body and student groups are dealt with as they arise (if they are not already the subject of custom, or of student-borne by-laws), and, usually, are settled by student action.

One problem, in the process of solution, is that of student relations to the courses of study. At present, the studies are prescribed in arrangements of curricula and "core duties". As courses are chosen by the individual student, the curricula and "core duties" are, of course, necessary. However, an effort is being made to give the student body a certain voice in, and responsibility for study arrangements, through a joint committee of students and faculty.

Recreational opportunities of an unusual number and variety are open to students, because of the combination of both seasonal and year-round conditions, San Diego summers and Egyptian winters.

REQUIREMENTS FOR ADMISSION

1. Freshman Standing.

Every person admitted as a student to this college must be of good moral character, of good health at least 16 years of age, and of that class of persons, who, on the proper examination, shall be admitted to the public schools of the state without restriction. This examination must be made and must be maintained always without restriction, except those defects which would impair their fitness for the teaching service.

Graduates of accredited public high schools of California, and graduates of schools equivalent to those of other states recognized by this college as equal in rank to accredited public high school of California, who have completed a regular four-year course of study, and who are recommended by the principal of the school in which such course of study was completed, may be admitted to undergraduate standing.

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Candidates may be admitted by either of two methods:
1. Clear admission. High school graduates who present twelve recommended units and the principal's certificate of recommendation, will be granted admission. Graduates of regular senior high schools must present nine recommended units, nine of which must be in English, Mathematics, Latin, and Greek, earned in grades ten, eleven, twelve, and junior.
2. Provisional admission. High school graduates who present fewer than the prescribed number of recommended units, but who through their principal's recommendations, present satisfactory evidence of ability to profit by teaching, and who pass suitable college entrance examinations, may be admitted as provisional students. Provisional students will then be granted full admission, dropped from the college, or for other reasons, continued as provisional students.

Certificates of successful examinations before the College Entrance Examination Board will be admitted to candidates who can meet the requirements of either of the above methods. The entrance examination of the Board are held in June each year (in California, at Berkeley, Los Angeles, San Diego, and other places). Applications for examinations must be addressed to the College Entrance blank form to be obtained from the secretary of the Board upon request.

II. Advanced Standing.
Students from other institutions of recognized collegiate rank may be admitted to advanced standing upon such terms as the Committee on Advanced Standing may determine. In any case a student must have a scholarship record equal to a statement of the college record together with a statement showing in detail the which matriculation credit is given. Students recognized by the California State Board of Education, may be admitted with credit. N. B.: a record of credit of other institutions will not be returned or copies of them made.

III. Special Students.
A candidate not less than 21 years of age who has not had the opportunity to complete a satisfactory high school course but who is considered acceptable by the university will be admitted directly to special standing. Applicants will be subject to the secondary school record and the status of special work proposed will be assigned whenever it seems advisable. Such students may become candidates for graduation upon satisfying the regular entrance requirements.

GENERAL REGULATIONS
Examinations
All students entering the college are required to take the following tests, namely: Composition Test, English, Social Relations Test, and Speech Test. Exceptions may be made for those who register for six units of work or less, or for former graduates of approved junior colleges.

The Fundamentals Test in English, spellings, arithmetical, etc., is a prerequisite for matriculation credit in the subjects of fundamental importance for the work of the college.

A physical examination is required of all students at entrance.

Registration
All students are required to register on one of the regular registration days preceding the opening of the class work of each semester. Any student who is late in registering for the first week of the semester is subject to limitation of his study close of the regular registration period. Changes in study lists may be made only with the approval of the proper study-lists officer.

Matriculation
A student is matriculated when he has satisfied all entrance requirements and has therefore provisionally during the first semester of residence.

Classification
Regular students are those students who have complied with the requirements of matriculation and are registered in 12 or more units of work.

Special students are mature students who have not satisfied all entrance requirements and who are registered for courses as their ability and preparation qualify them to pursue. Special students may also be limited students.

Satisfactory standing in College Admission student who has made the highest 63 units of work are classified as sophomores; those who have completed 64 to 91 units are juniors; and those who have completed 92 or more units are seniors.

Units of Work and Study-Lists Limits
A unit of credit represents approximately, for the average student, three hours of 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 (2 units), constitute a normal semester's program for all students except those in Engineering, where the normal requirement is 17 or 18 units. An entering freshman, however, 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 education, 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. 16 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 grade passing grade may be used in the satisfaction of course requirements, even though such course is in excess of the units credited for graduation. Credit for a program that does not conform to the above limits can be obtained only by permission of the Scholarship Chair, upon petition. No student under 21 years of age will be allowed to register for less than 12 units without the permission of the Registrar.

SPECIAL SUBJECT REQUIREMENTS
English Composition
Examinations will be given in English (Subject A or an equivalent) and the results will be submitted by students and advisers in order to determine the student's ability and should be the same as those who have been granted a grade of E (conditioned) except upon the removal of the deficiency by supplementary examinations or study. A report of "incomplete" is made only in case the student,
satisfying the English requirements. The electives in Natural Science may be chosen in a minimum of 6 units if the student presents acceptable grades in high school in Natural Science in laboratory courses offered in the third or fourth year. In general, each year's work of high school science will count towards the requirements by 3 units of credit. No college credit will be given for the high school work, simply an exemption of the requirements will be permitted.

Junior and sophomore years are called Lower Division and courses in the junior and senior years are called Upper Division. The former are given course numbers below 100 or C, and the latter are given numbers 100 or C and up.

At least 40 of the units completed during the junior and senior years shall be in Upper Division. Credit in introductory courses and those courses when taken in the junior or senior year may involve either additional work or reduction in the number of units of credit. Students who have less than 60 semester units of college credit are not eligible to register for Upper Division courses. If such students should take upper division courses only lower division credit will be given.

The minimum of the U.S. Constitution (Pol. Sci. 101), or the substitute course in Political Science 118 or U. S. History 117B, is required of all candidates for the A.B. degree.

A minimum of 124 units of college work is required. Not less than 54 of these units must be earned in the junior and senior years. All candidates for the A.B. degree must complete at least 50 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 are taken in the fall or spring semester. The purpose of these provisions is to preclude the possibility of graduation from the college with the A.B. degree on the basis of residence work which was done prior to the senior year or upon an exclusively summer session record at this college when only a limited sphere of collegiate work and activity is in operation.

The number of grade points acquired in this College by the candidate for a degree must be equal to the number of units registered on his permanent record card. (See page 17 for an explanation of scholarship grades and grade points.) Credentials from other colleges will be evaluated in accordance with this general plan.

Teaching Credentials

Students who are planning to teach and to secure California teaching credentials through this College are urged to follow the modern teacher training curriculums. It is highly advisable to start on a liberal arts course with the expectation of changing later to a course leading to a teacher's credential. A teacher's credential or teaching education (maximum of 40 units is required for any teaching credential secured through graduation from this college). Students should carefully Note the Course of Instruction statement and prerequisites for Practice Teaching Education CXYL, also for courses I, CXYXVIII, CVI, CVII.

Academic Teaching Majors and Minors

Students who wish to secure California teaching credentials through graduation from this college must also pattern their courses so that they will include what is termed an "academic teaching major." This consists of 24 units in a field other than education, 12 of which must be in the junior and senior years and six of which must be in the upper division. Candidates for the degree in the elementary curriculum must substitute two minors for the requirements of the junior high school course. Academic teaching majors and minors may be established in the following fields: English, Fine Arts, Foreign Languages, Mathematics, Music, Natural Sciences, Physical Education, and Social Sciences (Anthropology, Economics, Geography, History, Political Science, Sociology).

Note: an "academic teaching major" should not be confused with an "academic major." The former term alludes to what is considered the minimum college work in an academic field which is required as a preparation for teaching subjects in this field. The latter term is used for the special elementary or junior high school certificate in an academic field which is required for post-graduate research work in that field. The academic major usually includes about 24 units of upper division work. The "academic teaching major" in this college is 24 units of upper division work. Similarly, an "academic teaching minor" differs from an "academic minor." By a wise selection of electives a student may usually complete an academic major in the field of his choice instead of meeting the requirements of an academic teaching major. This will enable the student to pursue post-graduate work in the field of his academic major, if desired, without being compelled to do additional undergraduate work in that field.
### TEACHERS COLLEGE CURRICULA

These courses lead to the A.B. degree and also to the General Elementary Credential permitting the holder to teach in grades I-VIII, or to the General Junior High School Credential (permitting the holder to teach in grades VII-X in a junior high school), or to both credentials.

#### Freshman Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Units of Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Biology, Biology 10A (unless taken in High School)</td>
<td>3</td>
</tr>
<tr>
<td>Social Ethics</td>
<td>0</td>
</tr>
<tr>
<td>Geography Elements (Natural Science), Geog. 1A</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 1A or 52A</td>
<td>2</td>
</tr>
<tr>
<td>Art Structure; Fine Arts 6A</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Units of Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Biology, Biol. 10B (unless taken in High School)</td>
<td>3</td>
</tr>
<tr>
<td>Geography Regions (Social Science), Geog. 2A</td>
<td>2</td>
</tr>
<tr>
<td>Physical Education 1B or 52B</td>
<td>2</td>
</tr>
<tr>
<td>Art in the Elementary School, Ed. XIX</td>
<td>3</td>
</tr>
<tr>
<td>Either Semester</td>
<td></td>
</tr>
<tr>
<td>Introduction to Social Sciences</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives for Junior High Credential 18, for Elementary Credential or both** | 14 |

**Total** | **32**

#### Sophomore Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Units of Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Psychology, Psychology 2A</td>
<td>3</td>
</tr>
<tr>
<td>Music Fundamentals, Music 1A</td>
<td>3</td>
</tr>
<tr>
<td>Games (women), Phys. Ed. 52 or Phys. Ed. 1C (men)</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Units of Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genetic Psychology, Psychology 2C</td>
<td>3</td>
</tr>
<tr>
<td>Music in the Elementary School, Ed. XVII</td>
<td>3</td>
</tr>
<tr>
<td>Administration, Phys. Ed. 53</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 1D or 52D</td>
<td>3</td>
</tr>
</tbody>
</table>

| Either Semester | |
|----------------||
| Introduction to Education, Ed. I | 3 |
| Industrial Arts 1A or 41B (both required) | 3 |

**Electives for Junior High Credential 22, for Elementary Credential or both** | 12 |

**Total** | **32**

#### Junior Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Units of Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Curriculum, Ed. CXXVIII</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics in the Elementary School, Ed. CXXIX</td>
<td>3</td>
</tr>
<tr>
<td>Children's Literature, Ed. CXXVI</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Units of Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice Teaching, Ed. CXVI</td>
<td>3</td>
</tr>
</tbody>
</table>

| Either Semester | |
|----------------||
| Educational Measurements, Ed. CVIII | 3 |
| Curriculum in Field of Academic Major or Elementary Curriculum, Ed. CIV (or both) | 3 |
| Health Education, Phys. Ed. 151 | 3 |

**Electives for Junior High Credential 50, for Elementary Credential 12, or both** | 10 |

**Total** | **30**

#### Senior Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Units of Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice Teaching, Ed. CXVI</td>
<td>6 or 9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Units of Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principles of Elementary Education or</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Junior High School Education, Ed. CI</td>
<td></td>
</tr>
</tbody>
</table>

**Electives** | **21 or 18** |

**Total** | **30**

### CURRICULA FOR SPECIAL CERTIFICATION

Special credentials enabling the holder to teach in the special field designated in grades one to twelve, inclusive, will be granted upon graduation with the A.B. degree in the fields of Art and Physical Education. Two years of work in educational units of work in a minimum and from twenty-four to fifty units in the special field will be required.

#### Art Education

This course leads to the A.B. degree and to the General Junior High School Credential. It also leads to the Special Credential of the Fine Arts Type which entitles the holder to teach art in the elementary school, junior high school and senior high school.

**Lower Division**

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
</tr>
<tr>
<td>Physical Education</td>
</tr>
<tr>
<td>Art 6A-B</td>
</tr>
<tr>
<td>Electives</td>
</tr>
</tbody>
</table>

**Total** | **12**

### The Elementary Diploma Course

**Legends September 15, 1939**

#### Fresian Year

<table>
<thead>
<tr>
<th>Units of Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
</tr>
<tr>
<td>Orientation</td>
</tr>
<tr>
<td>Intoductory Principles of Education, Ed. I</td>
</tr>
<tr>
<td>Introduction to Geography, Elements 1A and Regions 2A</td>
</tr>
<tr>
<td>Mathematics in the Elementary School, Ed. CXXIX</td>
</tr>
<tr>
<td>Physical Education</td>
</tr>
</tbody>
</table>

**Total** | **32**

#### Sophomore Year

<table>
<thead>
<tr>
<th>Units of Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychology 2A and 2C, Ed. CXXVIII</td>
</tr>
<tr>
<td>Children's Literature, Ed. CXXVI</td>
</tr>
<tr>
<td>Music in the Elementary School, Ed. XVII</td>
</tr>
<tr>
<td>Art in the Elementary School, Ed. XIX</td>
</tr>
</tbody>
</table>

**Total** | **32**

#### Junior Year

<table>
<thead>
<tr>
<th>Units of Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
</tr>
<tr>
<td>Educational Measurements, Ed. CVIII</td>
</tr>
<tr>
<td>Practice Teaching, Ed. CXVI</td>
</tr>
<tr>
<td>United States Constitution (Pol. Sci. 101)</td>
</tr>
</tbody>
</table>

**Total** | **32**

---

*Not required if only a Junior High School Credential is sought.

*Open only to students who have passed the Fundamentals Test.

*Not required if only an Elementary School Credential is sought.

*Taking all courses excepting Ed. CVI leads to the combined Elementary and Junior High School Credential, permitting the holder to teach in grades I-X. See the requirements of the General Diploma Course in the General College for these requirements.

*As in the case of an applicant for a degree the electives must be so chosen that the student will have a total of 12 units in Social Sciences and 13 units in Natural Sciences. The electives must include 8 units in Biology unless this subject was taken in high school. The electives in the Junior year must include a minimum of four units in upper division courses in liberal arts.

*An applicant for the degree must major in Education. In Regular Courses they must include at least an "academic teaching major." The "academic teaching major" must be in the same field as the "academic teaching minor." (See page 15.) By exercising care in selecting the electives in the course, it is possible for a student to complete this course and satisfy the requirements of an academic teaching major.
Upper Division

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice Teaching (four units in special field) Ed. CXVI</td>
<td>9</td>
</tr>
<tr>
<td>Elementary Curriculum, Ed. CIV</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Secondary Education, Ed. CXXI</td>
<td>2</td>
</tr>
<tr>
<td>Art in the Junior High School, Ed. CXIX</td>
<td>2</td>
</tr>
<tr>
<td>U. S. Constitution, Pol. Sci. 101</td>
<td>2</td>
</tr>
<tr>
<td>Elective in Education</td>
<td>5</td>
</tr>
<tr>
<td>Electives*</td>
<td>14</td>
</tr>
</tbody>
</table>

Summary

- Art major for the special credential: 50
- Academic Teaching Major (not art or educational): 24
- Academic Teaching Minor (not art or education): 12
- Education: 24
- Electives*: 14

Total: 124

**PHYSICAL EDUCATION**

This course leads to the A.B. degree and the General Junior High School Credential. It also leads to a Special Credential of Physical Education Type which entitles the holder to teach physical education in the elementary school, junior high school, and senior high school.

**First Semester—Freshman Year**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Social Science</td>
<td>3</td>
</tr>
<tr>
<td>Social Ethics</td>
<td>3</td>
</tr>
<tr>
<td>English 4A or 52A or 60</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 1A (men): 52A (women)</td>
<td>3</td>
</tr>
<tr>
<td>Natural Science: Biology 101 (unless taken in High School); or Zoology 1A</td>
<td>3</td>
</tr>
<tr>
<td>History, Pol. Sci., Econ., Math., or Foreign Language</td>
<td>3</td>
</tr>
<tr>
<td>Must pass a prescribed Red Cross Swimming Test in Freshman Year</td>
<td>½</td>
</tr>
</tbody>
</table>

**Second Semester—Freshman Year**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 1B (men): 52B (women)</td>
<td>3</td>
</tr>
<tr>
<td>Natural Science: Biology 106 or Zoology 1B</td>
<td>3</td>
</tr>
<tr>
<td>History, Pol. Sci., Econ., Math., or Foreign Language</td>
<td>3</td>
</tr>
<tr>
<td>Hygiene 1 (men); Hygiene 2 (women)</td>
<td>3</td>
</tr>
<tr>
<td>Academic teaching major or electives*</td>
<td>2</td>
</tr>
</tbody>
</table>

Total: 15 or 16

**Sophomore Year**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychology 2A</td>
<td>3</td>
</tr>
<tr>
<td>Music 2A or Speech Arts 1A</td>
<td>2</td>
</tr>
<tr>
<td>Physical Education 52 (women); 4C (men)</td>
<td>3</td>
</tr>
<tr>
<td>Administration, Phys. Ed. 58 or 54 (men)</td>
<td>3</td>
</tr>
<tr>
<td>Physiology 100</td>
<td>2</td>
</tr>
<tr>
<td>Academic teaching major or electives*</td>
<td>3</td>
</tr>
<tr>
<td>Acceptable proficiency in tennis must be acquired in Sophomore Year</td>
<td>2</td>
</tr>
<tr>
<td>(Judged on playing skill and knowledge of teaching technique.)</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 15½ or 16½

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introductory Principles of Education, Ed. I</td>
<td>3</td>
</tr>
<tr>
<td>Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>Psychology 2C</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 1D (men); 52D (women)</td>
<td>3</td>
</tr>
<tr>
<td>Academic teaching major or electives*</td>
<td>4</td>
</tr>
</tbody>
</table>

Total: 16½

**Junior Year**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Psychology, Ed. CXVX</td>
<td>3</td>
</tr>
<tr>
<td>Elementary School Curriculum, Ed. CIV</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Physical Education, Ed. CXXI</td>
<td>3</td>
</tr>
<tr>
<td>Applied Anatomy, Phys. Ed. 105</td>
<td>3</td>
</tr>
<tr>
<td>Statistics and Tumbling (women), Phys. Ed. CXXI</td>
<td>3</td>
</tr>
<tr>
<td>U. S. Constitution, Pol. Sci. 101 or History 171B (unless Political Science 1B has been taken)</td>
<td>2 or 3</td>
</tr>
<tr>
<td>Sports and Athletics</td>
<td>3</td>
</tr>
<tr>
<td>Academic teaching major or electives*</td>
<td>5</td>
</tr>
</tbody>
</table>

Total: 16

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education Practice Teaching, Ed. CXVI</td>
<td>3</td>
</tr>
<tr>
<td>Also teaching in academic major if desired; 3 units. Ed. CXVI</td>
<td>6</td>
</tr>
<tr>
<td>Secondary Education, Ed. CXXI</td>
<td>2</td>
</tr>
<tr>
<td>Sports Methods (women), Phys. Ed. CXXIV</td>
<td>2</td>
</tr>
<tr>
<td>Coaching Methods (men), Phys. Ed. CXXIV</td>
<td>2</td>
</tr>
<tr>
<td>Character Dancing, Clogging and Interpretative Dancing, Phys. Ed. CXXIV</td>
<td>2</td>
</tr>
<tr>
<td>Sports and Athletics</td>
<td>3</td>
</tr>
<tr>
<td>Academic teaching major or electives*</td>
<td>7</td>
</tr>
</tbody>
</table>

Total: 16½

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education Practice Teaching, Ed. CXVII</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Physical Education, Ed. CXXI</td>
<td>2</td>
</tr>
<tr>
<td>Physical Education Tests and Measurements, Ed. CLXVII</td>
<td>2</td>
</tr>
<tr>
<td>Sports Methods (women), Phys. Ed. CXXIV B-A,</td>
<td>2</td>
</tr>
<tr>
<td>Community Recreation (women), Phys. Ed. CXXIV</td>
<td>2</td>
</tr>
<tr>
<td>Camp Craft (women), Phys. Ed. CXXIV</td>
<td>2</td>
</tr>
<tr>
<td>Community Recreation (men), Phys. Ed. CXXIV</td>
<td>2</td>
</tr>
<tr>
<td>Techniques of Officiating (men), Phys. Ed. CXXIV</td>
<td>1</td>
</tr>
<tr>
<td>Sports and Athletics</td>
<td>3</td>
</tr>
<tr>
<td>Academic teaching major or electives*</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 16 or 16½
**REQUIREMENTS FOR THE JUNIOR CERTIFICATE AND THE DEGREE IN THE LIBERAL ARTS CURRICULUM**

**Letters and Science (Presecondary) Curriculum**

This course leads to the A.B. degree. Completion of the requirements of this course also enables the graduate to satisfy the undergraduate requirements for the General Secondary Credential which, with post-graduate work, will enable the holder to teach in a senior high school or junior college. The degree courses are limited to majors in English, Chemistry, History and Romance Languages.

The junior certificate will be granted on the completion of 64 units of college work and the degree on the completion of 124 units. Certain requirements of the course, however, can be used to reduce the amount of college work required for the junior certificate or for the degree.

### Lower Division

**Freshman Year**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Ethics</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Orientation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Hygiene</td>
<td>1 or 2</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language or electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Social Science or electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Natural Science or electives</td>
<td>2-5</td>
<td>5-7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10+</td>
<td>15+</td>
</tr>
</tbody>
</table>

### Sophomore Year

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Foreign Language or electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Additional year course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social Science or electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Natural Science or electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15+</td>
<td>15+</td>
</tr>
</tbody>
</table>

The English requirement may be satisfied either in the freshman year or in the sophomore year.

At least 15 units in not more than two languages. Each year of high school work in a foreign language will be counted in satisfaction of 3 units of this requirement.

To be chosen from the following: Anthropology 1A-1B; Commercial Law 4A-4B; *Economics* 1A-1B; Economic History 11; *Geography* 1-2; *History* Sociology 10.

### Upper Division

(See page 17 for additional requirements.)

The courses prescribed in the lower division should be completed before the junior year.

A maximal number of deficiencies in the junior year may prolong the college course beyond the normal period of time.

1. The requirements of the Major Department must be completed in accordance with the following general rules:

   A minimum of 24 units in the Major subject is required, at least 15 units of which shall be in upper division courses completed in the junior and senior years. The Major Department shall recommend, in addition to the courses prescribed, such other courses as may be considered desirable and shall exercise advisory supervision over the student's program during his junior and senior years.

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

   2. A minimum of 12 units in a minor subject is required, at least 6 units of which shall be in upper division courses completed in the junior and senior years. Minors are available in the following subjects: Zoology, Chemistry, Economics, English, Fine Arts, Foreign Languages, Geography, History, Industrial Arts, Mathematics, Music, Physical Education, Physics, Political Science, Psychology.

   3. Three units in General Psychology must be included in the upper division program if not taken in the lower division.

   4. A minimum of 12 units in Education is required and a maximum of 18 units will be counted toward the degree. The courses in Education must be chosen from the following list:

      - Ed. I, Introductory Principles (lower division elective) Ed. C1, Principles of Junior High School Education
      - Ed. CVII, History of Education
      - Ed. CVIII, Educational Measurements
      - Ed. CIN, Educational Administration and Supervision
      - Ed. CXXX, Educational Psychology
      - Ed. CXL, Elementary Statistics
      - Psychology 2C, General Psychology

   A total of not more than 12 units of the applied and vocational courses taken in one or more of the departments listed below will be counted toward the degree:

      - Agriculture: Home Forciture 26; Nature Study 29
      - Economics: Typewriting 1A-1B, 2A; Stenography 1A-1B, 2A; Office Methods 3A; Business Mathematics A
      - Industrial Arts: Woodwork 1A-1B; Painting and Finishing 2; Wood Turning 5; Cabinet Work 5; Upholstering 6; Concrete Work 7; Sheet Metal 9; Pipe Fitting 10; Automobile Mechanics 13; Elementary Industrial Arts 61A and 61B; Auto Repair 116; Advanced Cabinet Work 117
      - English: Applied Journalism 32A-32B
      - Music: Choral and instrumental organizations
      - Physical Education: 53 or 54; 151
      - For Women: 22A, 22B, 22C or 52, 52D.

   For Men: 1A, 1B, 1C, 1D and all sport activities.

### PRE-PROFESSIONAL CURRICULUM

**Pre-Legal Curriculum**

a) The lower division requirements of the Letters and Science curriculum or, in special cases, the Commerce curriculum should be met in full.

b) Electives recommended:

   - History 1A-1B, 6 units.
   - Economics 1A-1B, 6 units.
   - Political Science, 1A-1B, 6 units.
   - Public Speaking, 1A-1B, 6 units.
   - Sociology 50, 3 units.
   - Psychology 2A-2B, 6 units.

   English 32A-32B.

c) Third year:

   Required: History 171A-171B and a minimum of 12 additional upper division units. A student who is pursuing a four-year Pre-Legal curriculum must major in a specific field in his junior and senior years.
**Pre-Medical Curriculum**

The lower division requirements of the Letters and Science curriculum should be met in full.

**Freshman Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>Social Ethics</td>
<td></td>
<td>Sem. 1</td>
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</tr>
<tr>
<td>Orientation</td>
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<tr>
<td>Hygiene</td>
<td>3</td>
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<tr>
<td>Foreign Language or electives</td>
<td>3-5</td>
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<tr>
<td>Chemistry 1A-1B</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Science</td>
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**Sophomore Year**

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<tr>
<td>Foreign Language or Chemistry 6A-6B</td>
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<td>English 1A-1B</td>
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<td>Social Science</td>
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**Junior Year**

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<tbody>
<tr>
<td>Chemistry 8-9</td>
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</tr>
<tr>
<td>Physics 2A-2B and 3A-3B</td>
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<tr>
<td>Zoology 100</td>
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<td>Electives</td>
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</table>

**Pre-Dental Curriculum**

A five-year curriculum, the first year's work to be taken in the Letters and Science curriculum and the remainder in a college of dentistry.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th></th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Social Ethics</td>
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<td>Sem. 1</td>
<td></td>
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<tr>
<td>Orientation</td>
<td>1</td>
<td></td>
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<tr>
<td>Physical Education</td>
<td>1</td>
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<tr>
<td>English</td>
<td>3</td>
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</tr>
<tr>
<td>Foreign Language</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Chemistry 1A-1B</td>
<td>3</td>
<td></td>
<td></td>
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<tr>
<td>Zoology 1A-1B or Biology 10A-10B</td>
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<td></td>
</tr>
<tr>
<td>Mechanical Drawing</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>or 17</td>
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</tbody>
</table>

1 The foreign language requirement of 15 units in not more than two languages (German or French or 16 units of college German or French). Each year of a high school course in a foreign language may be applied without, however, reducing the number of units required for the Junior Certificate (64).

2 Twelve units required. See Letters and Science curriculum.

3 This requirement should be met in the freshman or sophomore year if the foreign language requirement has been met in the high school.

4 Chemistry 101-102 is recommended. A student who is pursuing a four-year Pre-Medical course must major in a special field and should choose the electives that will satisfy the requirements of his Major Department.

**SOCIAL SERVICE CURRICULUM**

a) The lower division requirements of the Letters and Science curriculum should be met in full.

b) Additional requirements:

- Economics 1A-1B, 6 units.
- Biology 10A-10B, 6 units; or Zoology 1A, 4 units.
- Anthropology 1A-1B, 4 units.
- Social Economics 56, 3 units.
- Political Science 1A-1B, 6 units.
- History 1A-1B, or 5A-5B, or 8A-8B, 6 units.
- Psychology 2A, 3 units.
- Sociology 100, 3 units.
- Social Economics 150, Science of Society, 3 units.
- Social Economics 155, Social Research, 3 units.
- Economics 101, History of Economic Thought, 3 units.
- Economics 140, Elementary Statistics, 3 units.
- Zoology 114A, Genetics, 2 units.
- Education CVIII, Educational Measurements, 3 units.
- Physical Education CLXX or CLXLI, Community Recreation, 2 units.
- Physical Education 155, Applied Anatomy, 2 units.
- Political Science 113, American Political Ideals, 3 units.

**COMMERCE CURRICULUM**

<table>
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<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Social Ethics</td>
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</tr>
<tr>
<td>Orientation</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Physical Education</td>
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<td></td>
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</tr>
<tr>
<td>Hygiene</td>
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<td></td>
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<tr>
<td>Chemistry 1A-1B</td>
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<tr>
<td>Zoology 1A-1B or Physics 1A-2B</td>
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<td>Foreign Language or electives</td>
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<td></td>
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<td>Social Science</td>
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<tr>
<td></td>
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</tbody>
</table>

1 Twelve units required. See Letters and Science curriculum.

2 Six additional units required. See Letters and Science curriculum.

---

**A six-year curriculum, the first two years' work to be taken in the Letters and Science curriculum in conformity with the requirements for the Junior Certificate and the remainder in a college of dentistry.**
### Mechanical, Electrical, Civil and Mining Engineering Curricula

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<td>Mathematics 3A-3B</td>
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<td>Physics 1A-1B</td>
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<td>3</td>
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<tr>
<td>Chemistry 1A-1B</td>
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<td>3</td>
</tr>
<tr>
<td>Civil Engineering 1A-1B</td>
<td>5</td>
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<td>Ordination</td>
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<tr>
<td>Hygiene</td>
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<td>Social Ethics</td>
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#### First Year

#### Second Year

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Mathematics 4A-1B</td>
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<tr>
<td>Physics 1C-1D</td>
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<tr>
<td>Descriptive Geometry 3D</td>
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<td>Machine Drawing and Design 6A</td>
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<tr>
<td>Applied Mechanics II</td>
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<td>Electrical Engineering 12</td>
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<td>Pattern Making 5A-8B</td>
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#### Civil Engineering

<table>
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<td>Mathematics 4A-1B</td>
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<tr>
<td>Descriptive Geometry 3D</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Geology 1A</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>English</td>
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<td>Physical Education</td>
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<tr>
<td>Railroad and Irrigation</td>
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### Mining, Economic Geology and Petroleum Engineering

#### Second Year

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<tr>
<td>Physics 1A-1B</td>
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<td>Descriptive Geometry 3D</td>
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<td>Applied Mechanics II</td>
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<td>Electrical Engineering 12</td>
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<tr>
<td>Organic Chemistry 8-9</td>
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### Curriculm in Industrial and Engineering Chemistry

#### First Year

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<td>Social Ethics</td>
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#### Second Year

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<th>Course</th>
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<tr>
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<td>Physics 1C-1D</td>
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<td>Chemistry 6A-6B</td>
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<td>Chemistry 8-9</td>
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### Pre-Agricultural Curriculum

#### First Year

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#### Second Year

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<tr>
<td>Economics 1A-1B</td>
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</tr>
<tr>
<td>Surveying 1A-1B</td>
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1. May be taken either in the freshman or sophomore year.
2. Two or three years of a high school course in a foreign language may be applied to the satisfaction of the language requirement in part or in whole, each year reducing the requirement by 2 units without, however, reducing the number of units required for the Junior Certificate (44).
3. Twelve units required for the Junior Certificate. See natural science requirement in the Letters and Science curriculum. May be taken either in the sophomore or junior year.
CURRICULA IN ACCOUNTANCY AND SECRETARIAL TRAINING

The aim in giving courses in Accountancy and in Secretarial Training is to offer a business preparation of college grade. The courses are open to high school graduates who majored in commercial subjects as well as to those who have had no training for business. Candidates of not less than twenty-one years of age who have not completed four years of high school work may also be admitted as special students. The curricula have been formulated with a recognition of the varying needs of those who plan to engage actively in commercial pursuits. To this end, courses of one and of two years in length are provided in Accountancy and in Secretarial Training, or in a combination thereof. A minimum of 64 units of credit is required for a certificate.

It is the intention in the different courses to encourage individual research work in order that the student may become more resourceful, self-reliant, and keen to analyze and cope with business conditions and problems. To furnish material for this work, the city of San Diego will be used as a laboratory, through the cooperation of merchants, manufacturers, transportation men and financiers.

Accountancy

Two-Year Course (leading to Certificate in Accountancy).

First Year

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<tr>
<th>Course</th>
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<tbody>
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<td>Accounting 14A–14B</td>
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</tr>
<tr>
<td>Typewriting 1A–1B</td>
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<td>Business Mathematics A</td>
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<tr>
<td>Orientation</td>
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<tr>
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<tr>
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<td>English Composition</td>
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Second Year

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<td>Economics 1A–1B</td>
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<td>Psychology 2A–2B or Electives</td>
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<td>Physical Education</td>
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Secretarial Training

Two-Year Course (leading to Secretary Certificate).

First Year

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<td>Hygiene</td>
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<td>Business Mathematics A</td>
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COURSES OF INSTRUCTION

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.

Courses numbered from 1 to 99 and 1 to XCIX are freshman or sophomore (lower division) courses, while those numbered from 100 to 190 and C to CXIX are junior or senior (upper division) courses, available for sophomores only by special arrangement.

AGRICULTURE

26. Home Floriculture
A study of ornamental gardening to familiarize students with material used in gardening and methods of propagation. A part of the work consists in in-house practice and visits to nurseries, green houses and florists. The course is especially designed to furnish a part of the equipment needed by those intending to teach nature study and general science.

An elective for teachers college students, not classified as a natural science.

Two units; either semester.

29. Nature Study
The course aims to show the student what material, selected from the various 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).

An elective for teachers college students, classified as a natural science.

Two units; either semester.

ANTHROPOLOGY


Astronomy

Preparation for the Major in Astronomy (lower division) — Astronomy 1, Plane Trigonometry, Mathematics 3A-3B, 5A-5B, Physics 2A-2B and 3A-3B or 1A-1B, a reading knowledge of French or German.

1. Descriptive Astronomy

This cultural course is planned to give as comprehensive a view as possible of the solar system and the stars. Only calculations of an elementary nature are made. Special attention is given to the methods and instruments by means of which astronomical knowledge has been gained. An observatory equipped with a six-inch Alvin Clarke telescope is used for observation. Also a good selection of lantern slides is used to illustrate various topics. Prerequisites: Elementary Algebra and Plane Geometry.

Three units; either semester.

11. Modern Astronomy

Stars and nebulae. A study of 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.

Two units; one semester.

BIOLOGICAL SCIENCES

(Botany, Zoology, Biology, Physiology)

General students who wish to take only one or two courses in this department should register for Biology 10A-10B, 10C, or 114A (see below for prerequisites for each course).

Preparation for Major or Minor: Students who expect to make Botany or Zoology their major or minor subject should not take Biology 10A-10B or 10C; but should, first of all, take those courses that are prerequisites for upper division courses in the department. Recommended courses in other departments are high school Chemistry 1A, 1B, 8, and 9, French, German, or a course in zoology, anthropology.

The usual requirement for the Major: (1) At least a C average in upper division major courses. (2) Twenty-four units of upper division courses in the major subject (botany or zoology) or eighteen in the major subject and six in related courses such as botany, organic chemistry, physics, physiology, and zoology. (The college now offers to the student who wishes to major in zoology more than three years of work toward a major and offers two years of their zoology major.

Other courses to be added later.)

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

Fees: A fee of 82 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

BIOLGY

10A-10B. General Biology
M. E. Johnson
The fundamentals of plant and animal biology, with elementary work in heredity. The laboratory work supplements the lectures and includes a study of living and preserved material. The aim of the course is to acquaint the student with the basic facts of biology. It is designed 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 Biology 10C, Zoology 1A, or Botany 2A. Students who have taken 10A-10B may elect Zoology 1A or Botany 2A for credit.

Three units: both semesters.

10C. General Biology
M. E. Johnson, Dale
Prerequisite: A high school course in Physiology, Biology, Botany, or Zoology. An outline of the main facts and principles of biology and their bearing upon human life. Lectures, demonstrations, and experiments. Designed for students who do not expect to specialize in botany or zoology. Not open for credit to students who have taken Biology 10A-10B, Zoology 1A, or Botany 2B, but who have taken 10C may elect Zoology 1A or Botany 2A for credit. Two lectures and one three-hour laboratory period per week.

Three units; either semester.

2A. General Botany
Harvey
A study of the fundamentals of structure and general behavior of seed plants. Two lectures or recitations and two three-hour laboratory periods per week.

Four units; first semester.

2B. General Botany
Harvey
A continuation of 2A treating morphology and relationships of the lower plants and including an introduction to classification of seed plants. Lectures and laboratory as in 2A.

Four units; second semester.

4. California Plants
Harvey
Lectures, laboratory exercises and field work on the classification and ecology of plants of the San Diego region. Two lectures and one three-hour laboratory period per week.

Three units; second semester.

ZOOLOGY

1A. General Zoology
Harwood
An introduction to animal biology dealing with structure, functions and evolution of animal life. The laboratory work supplements the lectures and is based on the study and observation of living and preserved material. The course will acquaint one with the fundamental facts and theories of biology as they pertain to animal life. It is valuable to the general student as well as to the biology specialist. Two lectures or recitations and two three-hour laboratory periods per week.

Four units; first semester.

1B. General Zoology
Harwood
A continuation of 1A. The structure, relationships, and classification of the chordates. Two lectures and two three-hour laboratory periods per week. Pre-requisite: Zoology 1A.

Four units; second semester.
Upper Division Courses

102. Plant Geography
Lectures and field work on the principles of geographical distribution of plants. Prerequisite: Botany 2A-2B, or Botany 4, or equivalent.
Two units; first semester.

ZOOLOGY

100. Embryology
The development of vertebrates as illustrated by the frog, chick, and pig. Six hours of laboratory and one hour of lecture per week. Prerequisite: Zoology 1B or Biology 101B.
Three units; second semester.

112. Invertebrate Zoology
The structure, classification, habits, and life histories of the invertebrata of the region, particularly of the marine fauna. One hour of lecture and six hours of laboratory per week. Prerequisite: Biology 10A-101B or Zoology 1A.
Three units; first semester. (Not offered in 1929-30.)

114A. Genetics
A study of the laws of inheritance in plants and animals. Two lectures per week. Two units; second semester.

114B. Evolution
A study of the development of theories of evolution. Two units; two lectures per week; first semester.

121. Entomology
The classification, life-history, structure, and physiology of insects. Prerequisite: Zoology 1A or Biology 101B. Two hours of lecture and three hours of laboratory per week.
Three units; second semester.

133A. Taxonomy and Natural History of the Vertebrates
One hour of lecture and six hours of laboratory per week. Frequent field trips and the identification of preserved material. Prerequisites Zoology 1B or Biology 101B.
Three units; first semester.

135B. Ornithology
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 1A-1R. Biology 10A-10B, or 10C.
Three units; second semester.

100. Physiology of Exercise
A study of the mechanism of the human body, with special reference to the physiology of the motor system, lectures, demonstration experiments, class discussions, and reports. Prerequisite: Zoology 1B or Biology 101B.
Two units; first semester. (Not offered in 1929-30.)

Teacher-Training Courses

For courses in the teaching of science in junior high schools see Education CXX.

CHEMISTRY

Preparation for the Major (lower division)—Chemistry 1A-1B, with a grade of C or better. Chemistry 6A-6B, Physics 2A-2B or 1A-1B, Mathematics C and 3A-3B, or their equivalent, and a reading knowledge of German. Recommended: Physics 2A-2B or 1C-1D, Mathematics 3A-3B or 1C-1D.
The Major (upper division)—All units in excess of fourteen are counted as upper-division units when taken in the junior or senior year. The minimum requirement of the course for the major student must follow a definite plan approved by the department.

Lower Division Courses

1A-1B. General Chemistry
The general principles, laws of chemical combination and a description of the elements and their important compounds. Two lectures, one quiz and two laboratory sessions per week. The second semester laborotory is Qualitative Analysis throughout. Prerequisites: High School Chemistry or High School Physics and Trigonometry.
Five units; both semesters.

6A-6B. Introductory Quantitative Analysis
The work consists of determinations by gravimetric, volumetric and electro-analysis, particular attention being given to the cultivation of laboratory technique. One hour quiz and lecture and two laboratory periods per week. Prerequisite: Chemistry 1A-1B.
Three units; both semesters.

8-9. Organic Chemistry
A study of the carbon compounds (aliphatic and aromatic) and their derivatives, including the synthesis of different compounds and the proof of their constitution. A general consideration of the subject and the principles involved. Two lectures or quiz and one laboratory period, first semester, one lecture or quiz and two laboratory periods, second semester. Prerequisite: Chemistry 1A-1B.
Three units, both semesters.

101-102. Advanced Inorganic Chemistry
The course treats of the laws and theories of elementary work from the view-point of physical chemistry. The laboratory work covers such typical items as gas laws, mol weights, laws of combination, ionization, equilibria (homogeneous and complex) and electrochemistry. Two lectures, two laboratory periods per week. Prerequisites: 1A-1B, 6A-6B, 8-9.
Four units; both semesters.

110. Industrial Chemistry
A course of lectures on the application of chemistry to the arts. The most important industries are embraced and principles of evaporation, distillation, sublimation, filtration, crystallization, calcination, refrigeration, use of fuels and water purification are discussed. Prerequisites: 6B-9.
Three units; second semester.

123-124. Organic Preparations
A laboratory course illustrating some of the more important synthetic methods of organic chemistry. A reading knowledge of German is desirable. Laboratory and conferences. Prerequisite: 8-9. Hours to be arranged.
Two to five units; both semesters.

125. History of Chemistry
Development from time of Geber on reading, report and seminar basis. Considerations both experimental advances and production of the experimenters by the Ostwalds, Ronsen, Emil Fischer and Victor Meyer. Prerequisites: 101-102.
Two units; second semester.

Teacher-Training Course

For course in the teaching of Chemistry see Education CXX-C.

ECONOMICS

Preparation for the Major in Economics (lower division): Economics 1A-1B and at least one of the following: Political Science 3A-3B; History 4A-4B, 8A-8B; Psychology 2A-2B, Geography 1 and 2. Recommended: Sociology 50, Accounting 1A-14B, Commercial Law 18A-18B.

Lower Division Courses

1A-1B. Principles of Economics
A careful consideration is given to the basic principles of economics: Utility, wealth, value, price; economic production, distribution, and consumption; rent,
interest, wages, and profit; competition, monopoly, and large scale production; property, economic waste, and luxury; money and banking, international trade and tariffs; transportation corporations, labor problems, socialism, taxation, etc. The aim of the course is (1) to provide a foundation for further intensive study of economic problems; (2) to furnish to those who expect to follow business pursuits a broad foundation in economic principles; and (3) to introduce the future citizens to the political and economic problems of our time. Lectures, discussions, quizzes, and collateral reading. Not open to entering freshmen except by special arrangement.

Three units; both semesters.

11. Economic History of the United States
A comprehensive survey of American economic development and of national legislation in the field of industry.

Three units; both semesters.

14A. 14B. Accounting
A knowledge of bookkeeping is not required nor is it of advantage. A study is made of the balance sheet, profit and loss statement; various types of books of original entry; the opening, conducting and closing of books for different kinds of businesses; organizations, reorganizations, dissolutions and consolidations; branch store accounting, etc., keeping in view the best modern accounting practice. Eight hours lecture and laboratory.

Three or four units; both semesters.

18A. 18B. Commercial Law
The object of the course in commercial law is to give clearly and concisely the leading and fundamental principles of business law. Simple cases showing the actual application of the principles to commercial and business transactions are given, rather than development of those principles. The subjects covered are contracts, sales, agency, partnerships, corporations, real property, negotiable instruments, insurance and wills, with a brief study of evidence.

Three units; both semesters.

Upper Division Courses

100. Economic Theory
Advanced study of demand and supply, production and distribution, and economic welfare. Prerequisite: Economics 1A-1B.

Three units; one semester.

101. History of Economic Thought
The chief contributors to economic theory from the time of Adam Smith to the present day. Prerequisite: Economics 1A-1B.

Three units; one semester.

121. Business Organization
Description and analysis of business corporations, associations, and other forms of combination; differentiation of functions, methods of operation, etc. Prerequisite: Economics 1A-1B.

Three units; one semester.

125. Advertising and Salesmanship
Principles and problems. Three units; one semester.

131. Public Finance
Principles and practice of taxation, public expenditures, and financial administration. Three units; one semester.

134. Investments
Investment analysis and a study of the investment of personal savings. Two units; one semester.

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.

Three units; one semester.

140. Statistical Methods
An introductory study of the statistical measures and devices most commonly used in connection with work in the field of economics. Opportunity will be given to obtain practical experience in the use of calculating machines and other aids to computation. Prerequisite: Two years of high school algebra.

Two units; both semesters.

141. Economic Geography
(See Geography.)

160A-160B. Advanced Accounting
A thorough study of the principles of the corporation, its accounting and financial problems; a thorough study of the balance sheet, depreciation, factory accounting, etc. Under practical accounting an endeavor is made to design, construct, and operate sets of books to meet the needs of different conditions and kinds of businesses. Six hours lecture and laboratory.

Three units; both semesters.

Social Economics

A. Social Ethics
Required of all entering students. This course aims to place the student in contact with ways and means of knowing the fundamental principles of good breeding and social usage. It deals particularly with the relations of women to society. One hour per week for 9 weeks.

2A. Home Making
Coldwell. Coldwell. First place of the home in society, administration of the household, budgeting of incomes to cover shelter, food, clothing, savings and social life. Field work, assigned reference reading and home writing required. Lectures, class discussions, recitations. Two units; either semester.

10. Introduction to Social Science
Bryson, Smoak. A study of man's descent, race, social organization, ideals of conduct, and civilization. Modern problems. Three units; either semester.

50. General Sociology
Kelly. The nature and organization of human group activity is studied. This includes a study of the cultural heritage and its relation to public opinion and social change. Previous preparation in Biology and Psychology is recommended. Three units; either semester.

145. Social Psychology
(See Psychology.)

150. Science of Society
Panunzio. An advanced study of social environment, basic sociological concepts and principles, social institutions and organizations, social origins, social progress, social control and social values. Open to students who have taken Economics 1A-1B or Sociology 50 and to other properly qualified juniors and seniors by special arrangement. Texts, directed reading, lectures, reports on research. Three units, first semester.

155. Social Research
Panunzio. A course in the theory and practice of social science research. Open by permission of the instructor to such juniors and seniors who in Social Economics 100 have shown capacity to undertake research and an interest in some specific field. The student will select a social or economic topic for investigation, will conduct researches, make frequent reports of progress and have opportunity to cooperate with the Sociological Laboratory of Neighborhood House. Three units, second semester.
1A-1B. Typewriting

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 and billing; specifications, legal forms and preparation of manuscripts; transcription, mimeographing, etc. Ordinarily no credit is given for this course except in the field of accounting and secretarial training. Ten hours lecture and laboratory practice.

Four units; both semesters.

2A. Typewriting

A short course designed for those who do not wish to enter the business office but desire a knowledge of the use of the typewriter. Five hours laboratory practice. Ordinarily no credit is given for this course.

Two units; first semester.

5A-5B. Stenography

An intensive course designed for the practical preparation of office secretaries. The shorthand speed necessary to pass a civil service examination is attained by the end of the year. Ordinarily no credit is given for this course except in the curricula in accounting and secretarial training.

Five units; both semesters.

6A. Stenography

Development of speed in writing and transcription. Advance dictation on letter forms, legal forms, speeches and literary material.

Three units; second semester.

3A. Office Methods and Appliances

The fundamental principles and methods of office management, including organization, arrangement, and operation of modern office machines. Study and use of modern office appliances, such as the typewriter, typewriter, mimeograph, mimeograph, filing devices, calculating and bookkeeping machines. Trips are made to business offices to study the actual business conditions.

Pre-requisite: Typewriting 1A or its equivalent.

Three units; second semester.

A. Business Mathematics

A practical course in the mathematics of business. The ability to add, subtract, multiply and divide rapidly and accurately is developed. A thorough study is also made of the compound interest, compound interest, discount, amortization tables, insurance rates, etc.

No credit; first semester.

EDUCATION

1. Education—Introductory Principles and Techniques

This is the first required course in the study of education and has as its purpose the orienting of the mind of the student toward education and teaching. A preliminary survey of the field is made and of the theories and general principles applying to education in a modern democratic society. It also functions as a course in the preparation of the student for success in teaching and helps him to appreciate his own possibilities.

In the survey of this field of public education a study is also made of public and private colleges and universities which may or may not participate in the program of education. Special note is made of the Parent-Teacher Association and its functions.

Open only to students who have passed the Fundamentals Test.

Three units; either semester.

Upper Division Courses

1. Principles of Junior High School Education

This course deals with the principles of educational science that should underlie the organization, administration and curriculum of the secondary school, especially studied, and tendencies in the direction of future development are indicated. Particular attention is given to the problem of individual differences and to that of the vocational education in the secondary school with the junior and higher schools.

This course also functions as a "Comprehensive Examination" for applicants to the Junior High School Education course.

Hardy, Nida

30 units; either semester.

CIII. Education for Citizenship

An analysis of the ideals and habits essential for good citizenship followed by a study of the part which each school subject and activity contributes to their development.

Two units; either semester.

CIV. Public Education in California

A study of the structure, organization and administration of the public school system, as given in the school law of the state, and as interpreted by the ruling of the State Superintendent of Public Instruction, the Attorney General and the California courts. It is intended to give to prospective teachers a conception of the historical development and the main features of the California school system.

Two units; either semester.

CIV. Elementary School Curriculum

A study of the materials and activities of the elementary school and of accepted techniques in teaching. A summary and evaluation is made of the results of scientific investigations in this field. Special emphasis is placed on the teaching of English.

Open only to students who have passed the Fundamentals Test.

Three units; either semester.

CIV. Intelligence Testing

A brief review of the history and rationale of intelligence testing is followed by a discussion of the Stanford revision of the Binet-Simon Test, with demonstration and practice on the test. The best group tests of intelligence are discussed and demonstrated. Experience in giving, scoring and interpreting results is required. The purpose of this course is to give teachers information on the field of intelligence testing and to put him in the way of becoming skilled in giving and interpreting intelligence tests.

Two or three units; one semester.

CIV. Principles of Elementary Education

This course is designed as a culmination of the studies of education and its procedure. It is a study of the biological, psychological and social principles underlying modern education, in connection with the demands of modern society in a complex and changing world. Students who take this course must meet the general elementary credential requirements.

Johnson

Three units; either semester.

CIVII. History of Education

This course includes a brief study of early Hebrew, Greek, Roman and early Christian Education, of the changes brought about by the Renaissance, of the transition to modern secular education, and includes brief reviews of the educational philosophies of the great reformers, together with a concluding study of the development of the American secular educational system and of American ideals and practices in education.

Three units; one semester.

CIVIII. Educational Measurements

Bloom

This course consists of a brief survey of the history of the measurement of educational progress in the elementary and secondary schools. Offers a study of the nature of intelligence tests, especially of the Stanford-Binet, with special reference to the practical uses of achievement tests. The Stanford Achievement Tests give students a good part of the theoretical training in the use of intelligence tests used in schools. Simple statistical training in handling data is required through practical problems. Open only to students who have passed the Fundamentals Test.

Three units; either semester.
CIX. Educational Administration and Supervision  
JOHNSON  
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.  
Two units: one semester.

CX. Educational Organization and Supervision  
JOHNSON  
A study of types of supervision and methods of evaluating and improving teaching.  
Two units: one semester.

CXVI. Practice Teaching  
AULT AND SUPERVISORS  
Systematic observation, participation and actual teaching under competent supervision in the Training School and in the city schools of San Diego. The general plan for a student who has not had teaching experience is to take one period of practice teaching daily for a semester and two periods daily for another. In some cases the second assignment is for a half day. Only in case of an extreme emergency will a student who has not had experience in teaching be permitted to satisfy all practice teaching requirements in a single semester. It is planned to distribute the practice teaching assignments so that the student will have some experience in both upper and lower grades, with the emphasis on the grade or grades in which the student is particularly interested. Deviation from this plan is very liable to result in unsatisfactory training and is tolerated only when unavoidable. One period of teaching daily for a semester is usually credited with two or three units and two periods with four to six units, depending upon the character of the assignment and the work. When more time is needed the student is assigned to additional practice. The practice teaching requirements are usually reduced for those who have had successful teaching experience. The usual requirements for inexperienced teachers is nine units.

Open only to those who have a C average in all college work and a passing grade in the Fundamentals Test.

CXVIII. Class Management  
COBBETT  
A discussion of the problems arising in connection with schoolroom discipline; methods of securing a wholesome school "spirit" and the application of civic principles to school life.  
Two units: one semester.

CXXI. Principles of Secondary Education  
HARRY  
This course is to some extent a duplication of the elementary education course of the senior division, and it is planned to correlate the pre-existing patterns of high school education and the organization, administration and curriculum of the secondary school. The pattern of development is indicated. Particular attention is given to the problem of individual differences and to that of articulation of the secondary school with the lower and higher grades.

Two units: one semester.

CXXVIII. Primary School Curriculum  
Hammack  
A study of the activities of the first three grades of the elementary school. Special emphasis is placed upon beginning reading and frequent demonstration lessons are conducted. Open only to students who have passed the Fundamentals Test.

Three units: either semester.

CXXX. Educational Psychology  
Broom  
This is a study of the learning process and includes such topics as laws and rate and limits of improvement, spread of improvement or transfer and experimental studies in learning. Prerequisite: Psychology 2A and 2C.

CXXXI. Elementary Statistics  
Broom  
An introductory study of the statistical measures and devices most commonly used in connection with educational work. Data will be taken from typical school machines and other aids to computation.

Three units: one semester.

THE STATUTORY CURRICULUM
(Elementary School)

Norm.—The courses listed under this head do not include reviews of elementary mastery of the materials of the elementary school curriculum and of the general school subject matter. They are professional courses, and presuppose a reasonable curriculum of the secondary school.

XVII. Music in the Elementary School  
D. Smith  

Two units: either semester.

XIX. Art in the Elementary School  
BENTON  
Prescriptive: Art 6A or its equivalent. This course is a practical application of the elements and principles of Art to problems for grades 1-4. It is presented through projects, demonstrations, and laboratory work.

Two units: both semesters.

XXII. Geography Materials for the Elementary School  
CLARK  
This course aims to familiarize students with geography texts, geographical preparations for geography books, and geographical materials. A critical examination and evaluation of new literary materials for children's use, and a discussion of the best illustrators of books for children. Practice in developing technique in story telling through practical work in Story Hours.

Two units: both semesters.

CXXVI. Children's Literature  
COBBETT  
A study of the principles of selection underlining the choice of literature for the elementary school, with special emphasis on the social and educational status of the child. A study of sources material with respect to the interpretation of materials. A critical examination and evaluation of new literary materials for children's use and a discussion of the best illustrators of books for children. Practice in developing technique in story telling through practical work in Story Hours.

Two units: both semesters.

CXXIX. Mathematics  
RICHARDS  
A discussion of the applications of psychology and experimental education to the teaching of arithmetic and elementary general mathematics, together with study and observation of the newer methods as used under ordinary classroom conditions.

Two units: either semester.

COURSES FOR SECONDARY SCHOOL TEACHERS
Upper Division Courses

Organization and Administration (see Education CIX and CX)

CXL. English  
BAGLEY  
This course consists of the following items: (a) Lectures and required papers on the objectives of secondary school work in English and on these selection and interpretation of materials; (b) of the study of methods with respect to pupil abilities and activities; (c) of observation of the work in the city schools.

Two units: one semester.

CXII. Mathematics  
RICHARDS  
The subject matter, management of it and methods of teaching it in a junior high school curriculum in general mathematics, make up the principal topics of this course. Specific problems discovered include the application of arithmetic in current course. Specific problems discussed include the application of arithmetic in current course. Specific problems discussed include the application of arithmetic in current course. Specific problems discussed include the application of arithmetic in current course.

Two units: one semester.

CXIII. Geography  
CLARK  
This course deals, first with the subject matter suitable for secondary schools, particularly the junior high school, and with the arrangements and interpretation of the junior high school geography text. It is the problem of making the work useful in preparation for junior high school mathematics.

Two units: either semester.

CXIV. Social Science  
This course for prospective junior high school teachers attempts to meet the problem of the teaching of some of the elementary facts and principles of the general social science subject, through the medium of such social studies in the junior high school curriculum as the pupil, through the medium of such social studies in the junior high school curriculum as the pupil, through the medium of such social studies in the junior high school curriculum as the pupil.
through suitable school and other survey and study projects, and of developing a genuine and consuming interest in social and civic problems through observation and reading, will be discussed and illustrated.

Two units; one semester.

**CXX. History**

A study of subject matter, organization, materials and methods for the teaching of history in the junior high school. The course includes a study of textbooks, maps, pictures and other material.

Two units; one semester.

**CXXII. Commercial Education in the Secondary School**

The place of commercial education in the general field of vocational education. The objectives of commercial education. A study of methods, use of texts, cooperation with business men.

Two units; first semester.

**CXXIX. Art in the Junior High School**

Prerequisite: NIX. This course is for third year Art students working for the Special Art Certificate of Elementary and Junior High School grade. 2 units.

**CXX. A—B—C. The Teaching of Science in the Junior High School**

Courses in the content, methods, field work, textbooks, laboratory work, equipment, and reference reading for Junior High School Science. Prerequisite: IX units of college science.

Prerequisite: Eighteen units of college science including Biology 1A—1B and Botany 2A—2B.

Two units; first semester.

**CXXII. Physical Sciences**

Prerequisite: Eighteen units of college science including Physics 2A—2B or equivalent and high school or college chemistry.

Two units; second semester.

**CXXIII. Chemistry**

Laboratory planning, fitting, optional fields of development beyond basic matter are covered. Relative methods of presentation and a consideration of various texts and manuals are considered. Prerequisites: Chemistry 101—102.

Two units; second semester.

**CXXII. Organization of Industrial Arts**

Prerequisite: Thirty units in Industrial Arts. Two hours per week.

Two units; second semester.

**CXXIII. Teaching Industrial Arts**

Prerequisite: Thirty units in Industrial Arts. Five hours per week.

Three units, either semester.

**CXXIV. Romance Languages**

A consideration of the main questions of pronunciation, grammar, composition, the different methods and their history and value.

Two units; one semester.

**CXXVII. Music in the Secondary School**

Two units. (Not offered in 1929—30.)

**ENGINEERING**

Prerequisite: Mathematics 3A—3B and Physics 1A—1B.

Two units; second semester.

**11. Applied Mechanics**

Prerequisites: Mathematics 3A—3B and Physics 1A—1B.

3D. Descriptive Geometry

In this course 21 or more plates are required and four examinations given. The plates deal with the customary problems of points, lines, planes, and solids, developments, warped surfaces, intersections, etc. The aim of the course is to create originality and to develop the ability of the student to visualize and present on paper problems which are theoretical or practical. Prerequisite: Mechanical Drawing C or the high school course in Mechanical Drawing.

Three units; either semester.

5. Engineering Drawing

McIntyre

Draughting room practice supplemented by occasional lectures designed to meet the needs of engineering students. Lettering; orthographic projection; preparation of working drawings for engineering plants; flow sheets; graphical methods of representing engineering data. Prerequisite: Mechanical Drawing C or equivalent.

Two units; second semester; or one unit; both semesters.

6A. Machine Drawing and Design

Stowell

Function of machines; motion, force, and work in machines; analysis of mechanism; velocity, acceleration, and effort diagrams; parallel motion; cam; ratchets; toothed wheels; valve gear and design. Three lectures and two drafting periods. Prerequisite: Descriptive Geometry 3D.

Five units; second semester.

1A—1B. Civil Engineering (Plane Surveying)

McIntyre

Use and adjustment of surveying instruments, computations and map-making, together with a study of land, topographic, city and mine surveying. Two instruction periods and one three-hour period for field work and mapping each week. Prerequisites: Trigonometry and Mechanical Drawing.

Three units; both semesters.

2. Civil Engineering (Summer Class in Surveying)

McIntyre

Practical field problems in reconnaissance, triangulation, location and topographic surveys. Observations for meridian, time and latitude. Precise work, angular measurements. Development of self-reliance, accuracy and professional skill on the part of the student. Four weeks course commencing after the close of the second semester. Prerequisite: Civil Engineering 1A—1B.

Three units.

8A—8B. Mineralogy

McIntyre

Laboratory practice in the identification of the commoner minerals. Course 1A covering practice in determination of minerals by their physical properties and 1B by the use of the birefringence and chemical reagents. Prerequisite: High School Chemistry.

Two units; each semester.

9. Mineralogy

McIntyre

Crystallography and crystallography laboratory. Lectures on the underlying laws of crystal formation, with laboratory practice in determination of crystal forms and in methods of crystal projections. Two lectures and one laboratory period each week. Prerequisites: High School Chemistry and Geometry.

Three units; second semester.

ENGLISH

Preparation for the Major (lower division)—English 1A—1B and six units from 5A—5F, 6A—6F, 7A—7F, 8A—8G. Recommended: A reading knowledge of German or French. For students desiring to pursue the major in English, the above requirements are optional.

The Major in English—Required: Thirty-six units in English, of which not more than six may be in Journalism and Public Speaking and not more than nine in Composition. At least fifteen units in upper division courses must be completed in the junior and senior years.
Lower Division Courses

1A-1B. English Composition
ADAMS, BAGLEY, F. L. SMITH
The purpose of this course is to develop precision and directness in speaking and writing. A study of models, chosen from modern literature, forms the basis of class discussion and presentation. In 1A the emphasis is on exposition; in 1B on argumentation, description, and narration. Open only to students who have passed the English A examination. Three units; both semesters.

4A-4B. Great Books
OUTCAST
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. Three units; both semesters.

52A-52B. Types of Literature
OUTCAST
Introduction of the study of lyrical and narrative poetry: origin and elements of poetry: typical poems. Three units; first semester. Introduction to the study of dramatic poetry and prose, the essay, novel and short story: elements, principles and characteristics: examples. Three units; second semester.

56A-56B. Survey of English Literature
BAGLEY
The aim of this course is to give the student a better acquaintance with great examples of English Literature which reveal the development of thought and social ideals from the Anglo-Saxon period to the middle of the nineteenth century. The work consists of readings in the masterpieces, class discussions, occasional quizzes, and written reports. Three units; both semesters. (Not offered in 1929-1930.)

60. Periodical Literature
BEYSON
A study of current literature, in content and form, as presented by leading periodicals, with the purpose of promoting intelligence and discrimination in reading essays, fiction and current periodicals. Three units; either semester.

Upper Division Courses

101. Modern Prose Fiction
OUTCAST
A study of recent and contemporary fiction in drama, novel, and short story, beginning with Meredith and including the best British and American fiction of today. Three units; second semester.

106A-106B. Advanced English Composition.
OUTCAST
A laboratory course in modern prose writing. First semester, artistic narrative, newspaper syndicate article. Outside readings. Second semester, the essay, the magazine article, criticism, the composition. Three units; both semesters. (Either semester may be taken first.)

117. Shakespeare
OUTCAST
Extensive reading of Shakespeare's plays, with special attention to the select group of the comedies and another of the tragedies. Lectures and special reports. Three units; first semester.

118. Makers of Eighteenth Century Literature
BAGLEY
A study of Pope, Swift, Johnson, Goldsmith, Fielding, Burns, and their contemporaries as intermediaries and teachers of their age. Open to upper division students. Three units; first semester.

139. The Romantic Poets
ADAMS
Byron, Shelley, and Keats. In relation to the thought of the revolutionary period. Three units; first semester.

121. Browning and His Contemporaries
OUTCAST
A study of Tennyson and Browning and their contemporaries and successors, relating English poetry to nineteenth century life and thought. Three units; second semester. (Not offered in 1929-1930.)

130A-130B. American Literature
OUTCAST
A survey of American literature and its backgrounds from 1607 to the Civil War. Three units; first semester. Recent American literature, with its backgrounds from the Civil War to the present time, giving special attention to the development of prose fiction in the novel, short story and drama. Three units; second semester.

132. Essays on Problems of Modern Life
BEYSON
This course is limited to thirty upper division students. Papers and discussions. Three units; second semester.

151. Medieval Literature
BAGLEY
A study of the literature of the fourteenth century, especially the verse romances of Pisero Plowman, and the poetry of Chaucer. Open to upper division students. Three units; second semester.

160. Milton and Dryden
OUTCAST
Studies in the poetry of the seventeenth century, relating it to the thought and the social life of the age. Three units; second semester.

JOURNALISM

The aim of the course in Journalism is twofold: (1) To provide studies in the four departments of instruction—English, History, Economics, and Political Science—which constitute a foundation essential to the successful pursuit of Journalism as a profession; (2) to offer introductory courses in the principles and practices of Journalism, supplemented by lectures of specialists in the field and by practical work in news gathering and writing for student publications and for the local daily press.

51A. News Gathering and Reporting
F. L. SMITH
Study of news sources and practice in news writing. Newspaper organization. Three units; second semester.

51B. News Editing and Correspondence
F. L. SMITH
Practice in copyreading, proofreading, headline writing, makeup. Study of news values. Three units; second semester.

53A-53B. English-Journalism Applied
F. L. SMITH
Credit is earned by actual work throughout a full semester as editor of "The Axle," "El Palenque," or "Del sudoeste"; or for specified staff work throughout one semester.

One to three units; each semester.

SPEECH ARTS
Preparation for the Major in Speech Arts (lower division): Speech Arts 1A, Speech Arts 2A and 5A or Speech Arts 55A-55B.

Lower Division Courses

1A-1B. Elements of Public Speaking
JONES
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 construction and delivery of formal speech. Three units; both semesters.
3A. Advanced Public Speaking

Study of public speaking methods. Study of selections: observation of speaking in community. Organization and delivery of speeches. Analysis of individual problems in speech making. Participation in a public debate or oratorical contest, or the presentation of an equivalent amount of practical speaking before public assemblies is required.

The membership of the class is limited to twenty.

Before electing the course students must consult the instructor in charge.

Two units; second semester.

5A. Argumentation and Debate

A study of the 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 will be given to intramural and intercollegiate debating.

Three units; first semester.

55A-55B. Play Production

History and technique of dramatic production, with special emphasis on contemporary drama. Practical working knowledge of different types of plays through rehearsal and presentation. Arranged for students interested in all the theater arts.

Three units; both semesters.

55C-55D. Dramatic Interpretation


Three units; both semesters.

Upper Division Courses

55A-55B. Dramatic Workshop

Advanced work along lines of student's individual dramatic interests; acting, work and theatrical experience afforded those wishing educational, recreational, and professional use.

Three units; both semesters.

FINE ARTS

The Major in Fine Arts is not offered for the Liberal Arts Degree. Preparation for an Art Major—Art I, A-B, 6A-6B and two additional units in lower division art. Junior High School Credential.

Lower division—Art A-B, 6A-6B, and four units of lower division art. Care should be taken to choose prerequisites for upper division courses. 1nd. Art 61A upper division—Art 110A-110B, 105 and five units of upper division art.

For special secondary certification in Fine Arts see the course in Art Education.

Lower Division Courses

A. Freehand Drawing

Problems involving principles of perspective are given to develop ability to draw and technique in pencil, charcoal, etc.

Two units; first semester.

B. Freehand Drawing, Painting and Sketching

Drawing from costume pose, outdoor sketching and problems involving use of various color mediums. Prerequisite: Art A.

Two units; second semester.

1. Art Fundamentals

An illustrated lecture course intended to increase appreciation and give a basic understanding of the elements and principles of art as expressed in the architecture.

Two units; either semester.

6A. Art Structure

Fundamentals of design and composition and theory of color. This is the basic Liberal Arts field.

Two units; either semester.

6B. Art Structure (Continued)

Benton, Moon

Original, creative work in design with special stress on structural and industrial design and modern tendencies. Prerequisite: 6A.

Two units; either semester.

12A. Advanced Design

Benton, Kelly

Design applied to textiles and objects involving dyeing, painting and various processes. Prerequisite: 6A-6B.

Two units; first semester.

12B. Posters and Advertising

Kelly

Design in relation to lettering, commercial advertising and posters. Prerequisite: 6A.

Two units; second semester.

15A. Painting

Kelly

A course especially designed to develop technique in various media in color from still life, figure and landscape. Prerequisite Art A-B.

One unit; first semester.

15B. Painting*

Kelly

Continuation of 15A with special stress on landscape. Prerequisite: Art A-B.

15A.

One unit; second semester.

94A. Costume Design

Kelly, Moon

Design studied in relation to modern dress for general and individual types. The course includes study of foreign and historic influences on dress; original problems: sketching from costumes in the shops and demonstrations with models. Prerequisite: 6A.

Two units; first semester.

Upper Division Courses

110A. Art History and Appreciation

Morris, Moon

A study of architecture, sculpture, painting and handicraft from the dawn of art to the Renaissance, through illustrated lectures, research and discussion.

Two units; first semester.

110B. Art History and Appreciation

Poland, Moon

Same procedure as 11A but covering that period from the Renaissance to the Modern School.

Two units; second semester.

115A. Life Drawing*

115B. Life Painting and Portraiture*

115C. Advanced Painting*

Benton, Kelly

112A. Advanced Composition

Design in relation to imaginative composition and story illustration. Prerequisite: Art A-B, 15A, 6A-6B.

Two units; first semester.

152A. Stage Design

Benton

Theory of line, color and lighting. Original sets and costumes developed on the miniatures stage. Study of the development of modern art of the theater. This course leads to the advanced stage craft course 152C. Prerequisite: 6A.

Three units; first semester.

152B. Stage Costumes

Kelly

Abstract problems in designing costumes to express mood and practical problems in designing costumes for productions. Prerequisite: 6A, 122A.

Three units; second semester.

152C. Stage Craft

Jones

Study of stage terminology and technique. Scene building and decoration. Materials and their treatment for stage effect. Actual experience in setting, costuming and lighting productions. Prerequisite: 152A.

Three units; second semester.
195. Home Decoration
Benton
Home planning and landscaping, interior decoration, study of period styles and modern decoration. Illustrated lectures and laboratory problems. Prerequisite: 9A.
Three units; second semester.
* Should these courses not be offered in 1929-30, the equivalent can be taken at the San Diego Academy of Fine Arts. Full credit is given for any course offered at the academy upon presentation of work and transcript of record.

FOREIGN LANGUAGES
Preparation for the Major in a Foreign Language (lower division): Required: 16 units of credit in the language chosen for the major. Recommended: History 44A-B.
Preparation for the Group Major in Romance Languages (lower division): French A, B, C, D, and Spanish A, B, C, D.
The Group Major (upper division): Eighteen upper division units in one language or twelve units in one language and six units in another. The group major requirements are based on the assumption that the student will have taken courses in the high school which are equivalent to the college course in elementary French or Spanish. A student who offers matriculation credit for only two years of the high school course in a Romance language may take a placement test to determine his eligibility for the third semester of the college course.

Lower Division Courses
Elementary French
Intensive study of French grammar and syntax; daily written work discussed in class; class drill in conversational idiom and pronunciation; reading with oral discussion and résumés; dictation: introduction to contemporary prose writers; study of the principles of French prosody, with memory work.
A. Elementary French
Five units; first semester.

B. Elementary French
Prerequisite: French A or two years of the high school course in French, or its equivalent.
Five units; second semester.

Intermediate French
Reading and composition: Study of standard prose as a basis for class work; prose, with selections for memorizing; dictation. Class work conducted mainly in French. Individual conferences.
C. Intermediate French
Prerequisite: French B or three years of the high school course in French, or its equivalent.
Three units; first semester.

D. Intermediate French
Prerequisite: French C or four years of the high school course in French, or its equivalent.
SC. French
Scientific French. Prerequisite: French B or three years of high school French.
L. P. Brown
Two units; first semester.

101A-101B. French
Conversation and Composition. Prerequisite: French D, or its equivalent.
E. M. Brown
Three units; second semester.

102A-102B, Introduction to French Classics
Prerequisite: French D or its equivalent.
E. M. Brown
Three units; second semester. (Not offered in 1929-1930.)

105A-105B, Modern French Drama
Plays of Mounet, Scribe, Augier, Dumas fils, Pailleron, Brière, Hebertot, and others will be read and discussed as to subject matter and technique. Outside reading and reports. Prerequisite: French D, or consent of instructor.
Three units; both semesters. (Not offered in 1929-1930.)

Elementary German
Pronunciation, reading and grammar, with practice in simple conversation, narration, and description, both oral and written.
A. Elementary German
Five units; first semester.

B. Elementary German
Prerequisite: German A or two years of the high school course in German, or its equivalent.
Five units; second semester.

Intermediate and Scientific German
This course furnishes the regular preparation for the upper division courses.
C. Intermediate and Scientific German
This course may be taken as a three-unit course in literature or as a five-unit course combining literature and science. Prerequisite: German B with a grade of C or three years of high school German. Three or five units: first semester.

D. Intermediate and Scientific German
Second semester; same as C. Prerequisite: German C with a grade of C or four years of high school German. Three to five units; second semester.

Elementary Spanish
Introduction to study of Spanish grammar and syntax, with daily written work; class drill in conversational idiom and pronunciation; reading with oral discussion and reports in Spanish; study of Spanish prose, with selections for memorizing; dictation; introduction to contemporary prose writers; study of the principles of Spanish prosody, with memory work.
A. Elementary Spanish
Five units; first semester.

B. Elementary Spanish
Prerequisite: Spanish A or two years of the high school course in Spanish, or its equivalent.
Five units; second semester.

Intermediate Spanish
Reading and composition; study of standard prose as a basis for class work; class drill in conversational idiom and pronunciation; reading with oral discussion and reports in Spanish; study of Spanish prosody, with selections for memorizing; dictation. Class work conducted mainly in Spanish. Individual conferences.
C. Intermediate Spanish
Prerequisite: Spanish B or three years of the high school course in Spanish, or its equivalent.
Three units; first semester.

D. Intermediate Spanish
Prerequisite: Spanish C or four years of the high school course in Spanish, or its equivalent.
Three units; second semester.

101A-101B. Spanish
Conversation and composition. Prerequisite: Spanish D, or its equivalent, with grade of C.
Three units; both semesters. (Not offered in 1929-1930.)

109A-109B. Survey of French Literature
L. P. Brown
This course is intended to give a broad foundation for further study in French literature. The chief movements and writers from the sixteenth through the nineteenth centuries are studied, with selected readings. Prerequisite: French D or consent of instructor.
Three units; both semesters.
102A—102B, Introduction to Spanish Classics
L. P. Brown
This course will introduce the student to the several types of classical literature.
Reading will be: Gil Blas and other novels of Ruygui; one drama each from the
works of Lope de Vega, Calderon, Alarcon, and Moreto; selections from Don
Quijote, and the Cien Mejores Poemas Castellanos; collateral reading and reports.
Prerequisite: A grade of C in Spanish D or permission from the instructor.
Three units: both semesters. (Not offered in 1929-1930.)

105A—105B, Modern Spanish Drama
L. P. Brown
This course will trace 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.
Three units: both semesters. (Not offered in 1929-1930.)

110A—110B. Novel and Short Story in Spain
L. P. Brown
This course will trace the development of the novel and short story in Spain
from 1850 to the present time. Prerequisite: A grade of C in Spanish D or per-
mission from the instructor.
Three units: both semesters.

GEOGRAPHY
Preparation for the Major in Geography (lower division): Geography 1, 2, 3.
Geology 1A. Recommended: A reading knowledge of French or German.

Lower Division Courses

Introduction to Geography; Elements
CLARK, SUHL
This course deals with the fundamental principles of Geography, with the dis-
tribution of life upon the earth and with the effects of environment upon the
location and development of human activities. Open to all students.
Geography 1A, two units; either semester (for teacher-training students).

Introduction to Geography; Natural Regions and the Distribution of
CLARK, SUHL
Population and of Cultures
This course applies the fundamental principles of Geography to the various
regions of the world. The regions are compared with regard to different stages of
development. Prerequisite: Geography 1 or 1A.
Geography 2, three units; either semester.
Geography 2A, two units; either semester (for teacher-training students).

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 will be given to local
conditions, instruments and records.
Three units.

113. Climatology
BLAKE
A survey of the different climates of the world and their effect upon vegetation
and human activities. Special attention is given to the climate of different parts of
the United States. Prerequisite: Meteorology.
Three units.

116D. Geography of South America
CLARK
South American countries, and with the effect of those physical factors upon
the Geography 1 or 1A.
Three units.

117. Geography of Europe
CLARK
This course deals with the physical environment of each of the nations and their
relations to physical environment in their political and social relations. It is
clarity with modern Europe to be able to read current periodical literature with
the smaller as well as the larger of the European countries. Prerequisite: Geography 1 or 1A.
Three units: second semester.

121. Geography of North America
CLARK
A study of the natural regions of North America, their formation, occupations
and historical development. Prerequisite: Geography 1 or 1A.
Three units: second semester.

124. Geography of Asia
SUHL
A study of the cultural regions of Asia, their physical environment and historical
development. Prerequisite: Geography 1 or 1A.
Three units: second semester.

141. Economic Geography
SUHL
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. Prerequisite:
Geography 1 or 1A and 2 or 2A.
Three units: first semester.

Geology 1A.

Geology 1A.

General Geology. A study of the surface features of the earth, agencies and
processes of change and evolution of topographic forms.
Three units; either semester.

Geology 1B.

Historical Geology. Origin and geological history of the earth and of its
animal and plant life. Prerequisite: Geology 1A.
Three units.

HEALTH AND PHYSICAL EDUCATION

WOMEN’S DEPARTMENT

All new students are given a medical examination to the end that the physical
needs of the student may be determined and her class work planned accordingly.
Two hours weekly of directed physical activity are required in freshman and
sophomore years. Emphasis is upon Rhythmic Activities, Games and Sports.

Lower Division Courses

Hygiene 2.
TANNER
An informational course reviewing the principles underlying the improvement
and preservation of personal and civic health. Social Hygiene is studied in its
relation to the practical problems of young women and prospective home makers.
The laws and procedures in local civic health matters of particular interest to
women are studied in detail. Reports following personal investigation of at least
three major topics are required for each member. These reports being given and
work in the Liberal Arts curricula and of Majors in Physical Education.
Two units: either semester.

52A. Formalized Activities and Group Games
RAW AND ASSISTANTS
One-half unit.

52B. Stunts and Apparatus
RAW AND ASSISTANTS
One-half unit.

52C. Athletic Games and Sports
RAW AND ASSISTANTS
(For Liberal Arts candidates for the Junior High School Credential.)
One-half unit.

52. Game Activities
RAW AND ASSISTANTS
(For Elementary School Credential.)
One-half unit.

52D. Rhythmic Activities
RAW AND ASSISTANTS
One-half unit.

52E. Game Activities
TANNER
Games suitable for large or small groups in elementary and junior high schools
are studied and played. These include rhythmic activities, games of low organiza-
tion and modified athletics.
One-half unit; both semesters.

53. Administration of Physical Education
TANNER
Consideration of physical education problems, administration of tests, methods of
classifying children for play activities, developing leaders, and carrying on intra-

mural ideals. Particular attention is given Posture problems. The content and administration of the state program in physical education form the basis of the course.

Tw0 units: either semester.

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 of health education program. Methods of presenting personal and group health to children of different ages. Hygiene of the school room, such as seating, lighting and ventilation.

Two units: either semester.

155. Applied Anatomy

A study of the mechanics of the human skeletal and muscular systems, and an analysis of actions in games, formalized activities and general body movement. Mechanical strength and durability as influenced by anatomical factors are considered.

Two units: one semester.

101. Emergencies

(See Men's Department.)

One unit.

170. Recreational Leadership

Fundamentals of recreational leadership are developed by instruction in Scout and Camp Fire lore, the study of school recreational needs and facilities, and of civic recreation.

Two units: one semester.

174. Campcraft

The technique of life in open camp is developed by camp experience. This is led in the open, making camp fires, cooking and camp activities. Enrollment by permission of the Instructor. Fee $2.50.

Two units.

CLVII. Sports Methods

Practice for skill, study of rules and of coaching methods. Prerequisite: A season's experience in at least four of the following sports—Volleyball, basketball, track, football.

Two units: both semesters.

CLVIII. Stunts and Tumbling

One-half unit.

CLX. Formalized Activities

(See Men's Department.)

Two units.

CLXI. Folk Dancing

A series of folk and national dances for elementary and junior high schools. Techniques of various dances. Note books are required.

Two units.

CLXIV. Character Dancing, Clogging, Interpretative Dancing

Two units: one semester.

CLXXI. Principles of Physical Education

Prerequisite: Junior standing.

Two units: one semester.

CLXXII. Physical Education Tests and Measurements

Two units: one semester.

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HEALTH AND PHYSICAL EDUCATION

MEN'S DEPARTMENT

A two-hour course is required for the two years of lower division. Medical examination is given each student entering and the work in this is taught as far as possible to his needs. Physical efficiency tests are given at the beginning in order to classify the student as to his physical ability. These are repeated at the beginning of the three succeeding semesters in order to note improvement and arrange for the three succeeding semesters so as to acquire all-round development. The content of the balance of program so as to acquire all-round development. The content of the program is planned to give each student fundamental training in those sports which have carry-over value into after life.

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LOWER DIVISION COURSES

C. E. PETTSON

Hygiene 1.

An informational course in personal and community hygiene required of all men in the freshman year. The course includes a study of Sex hygiene and the mental health of the community. The course is vitalized by demonstrations and special topics, the means by which the community protects the health of the local community is protected and improved, providing subjects for special study. Lectures, reference reading, special topics, discussions, oral and written quiz. One unit: either semester.

1A. (Fall semester; Freshman year.) Marching, Callisthenics, Self-defense and Track and Field Fundamentals.

One-half unit.

1B. (Spring semester.) Tennis, Swimming and Golf.

One-half unit.

1C. (Fall semester; Sophomore year.) Instruction and competition in Handball, Basketball and Track and Field.

One-half unit.

1D. (Spring semester.) Instruction and competition in Volleyball, Baseball and Track and Field.

One-half unit.

Opportunity is given all students to take part in the regular competitive sports program.

5A or B. Track. One-half unit; second semester.

5A or B. Baseball. One-half unit; second semester.

5A or B. Basketball. One-half unit; second semester.

5A or B. Tennis. One-half unit; either semester.

7A or B. Box. One-half unit; first semester.

5A or B. Vollyball. One-half unit; first semester.

5A or B. Cross country. One-half unit; first semester.

10A or B. Swimming. One-half unit; first semester.

11A or B. American Football. One-half unit; first semester.

Courses fulfilling Degree requirements for Physical Education Majors and meeting state requirements for Teaching Credentials in Physical Education.

54. Administration of Physical Education

C. E. PETTSON

This course presents the problems that arise in the everyday experience of the physical education instructor. In physical education, such as policies in administration, the organization of the leadership of the organization of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the leadership of the administration, the organization of the administration of the apparatus and the activities so that many of the most common accidents are prevented or minimized.

Two units: either semester.

191. Emergencies

(See Women's Department.)

Two units: either semester.

151. Health Education

(See Women's Department.)

Two units: either semester.
155. Applied Anatomy
A study of the mechanics of the human skeletal and muscular systems, and an analysis of their actions in games, formalized activities and general body movements. Mechanical strength and durability as influenced by anatomical factors are considered.
Two units; one semester.

171. Community Recreation
C. E. Peterson and Staff
This course is planned to meet the needs of the various workers in community playground systems apart from schools as well as the needs of directors of play and Special attention is given to scout and campcraft, the elementary training of a
Two units; second semester.

CLIV A-B. Methods in Coaching Competitive Athletics
C. E. Peterson
The presentation of different systems of teaching competitive athletics in high both the theory and practice of the most successful systems. Sports covered—
Two units; both semesters.

CLX. Formalized Activities
C. E. Peterson
Systems, value, method and progression. Typical lessons for corrective and responsive work. The use of wands, clubs and dumb-bells. Emphasis to be laid on explanatory terminology. Theoretical and practical work.
Two units; second semester.

CLXII. Gymnastic Stunts or Self-Testing Activities
Brucker
In this course simple stunts on the more popular gymnasium apparatus are prac-
ticed. A great variety of nonapparatus stunts are also practiced including pyramid
formance of a great group of gymnastic stunts, which are always popular in the
interest of the recreational or self-
Two units; second semester.

CLXII. Principles of Physical Education.
Two units.

CLXVI. Technique of Officiating
Brucker
This course covers methods of officiating all the sports common to the school or
college program, also methods of training student officials. Practice is given in the
Two units; both semesters.

CLXXII. Physical Education Tests and Measurements
Two units; one semester.

HISTORICAL
Preparation for the Major in History (lower division) : History 4A-4B or 5A-5B, and either Political Science 1A-1B, Economics 1A-1B, or Geography 1

Two units; one semester.

CLXXII. Physical Education Tests and Measurements
Two units; one semester.

4A-4B. History of Modern Europe
Lesley
The development of Western European society, politics and institutions from Congress of Vienna. Library deposit, $2.50.
Three units; both semesters.

5A-5B. History of England
A survey of the more important political, constitutional and cultural phases of
English development. The course is advised as a preliminary study for students
Library deposit, $2.50.
Three units; both semesters.

111A-111B. Ancient History
A. Greek history to the Roman conquest. B. Roman history to the sixth century.
Library deposit, $2.50.
Three units; both semesters.

121A-121B. Medieval History
A general survey of European history from about 500 to 1500 A.D.
Library deposit, $2.50.
Three units; both semesters.

145A-145B. Europe Since 1789
The Revolutionary Era in Europe; the conflict of Reaction and Liberalism; the Industrial Revolution; the development of Nationalism, with special attention to the unification of Germany and Italy; political problems of contemporary Germany and Italy; political problems of contemporary
Europe resulting from the World War. Library deposit, $2.50.
Three units; both semesters.

145A-145B. Europe Since 1789
A study of European diplomacy and colonial policies since 1648, with detailed attention to the role of the great powers in international organization and procedure. During attention to the role of the great powers in international organization and procedure. During
Europe resulting from the World War. Library deposit, $2.50.
Three units; both semesters.

151A-151B. Diplomatic History of Europe
A study of European diplomacy and colonial policies since 1648, with detailed
Europe resulting from the World War. Library deposit, $2.50.
Three units; both semesters.

156A-156B. History of British Expansion
A study of British expansion from the days of the Roman conquest to the present time. The first half-year's work extends to the present time. The first half-year's work extends to the
The other

171A-171B. The Rise of the American Nation
A. English colonization in North America and the development of colonial institu-
tions and politics. B. The revolutionary movement and the Revolutionary War; the establishment of the government under the Constitution to about 1840.
Library deposit, $2.50.
Three units; both semesters.

173A-173B. The Expansion of the United States
A study of the Mexican War and the slavery controversy, the Civil War and Reconstruction, and the growth and progress of the United States to about 1920.
Library deposit, $2.50.
Three units; both semesters.

181A-181B. History of the West
Territorial growth of the United States; the diplomacy and policies of expansion; the settlement and development of the West; the influence of expansion on the West. The course is advised as a preliminary study for students
Library deposit, $2.50.
Three units; both semesters.

INDUSTRIAL ARTS
1A-1B. Bench Work in Wood
Fundamental tool and joining operations.
Two units; both semesters.
3A. Mechanical Drawing
SCUDDER
Use and care of instruments, lettering, geometrical problems, orthographic projections, revolutions, developments, intersections, tracing and blue printing. Nine hours per week. Three units; either semester.

3B. Advanced Mechanical Drawing
SCUDDER
Shop problems, detailed working and machine drawing, and topographical mapping. Nine hours per week. Prerequisite: 3A. Three units; either semester.

8A-8B. Pattern Making
SCUDDER
Principles of pattern making and the use of bench and machine tools. Two units; both semesters.

11. Shadow Projection and Linear Perspective
SCUDDER
Shade and shadow on plane and warped surfaces, elements of perspective and perspective of shadow. Six hours per week. Prerequisite: 3A. Two units; either semester.

18. Lettering
SCUDDER
Single stroke Gothic, block, old and modern Roman titles, etc. Six hours per week. Prerequisite: 3A. Two units; either semester.

61A. Elements of Industrial Arts
BENTON
Practical problems in the handling of industrial materials such as clay modeling and pottery, paper making, bookbinding, weaving, basketry. Also the study of related subject matter and the use of industrial arts information and skills. Two units; either semester.

61B. Elements of Industrial Arts
SCUDDER
Assembly operations in wood, sheet metal and concrete. Supplies and materials for various projects and the relation and contribution of industrial arts to other activities. Two units; either semester.

MATHEMATICS
Preparation for the Major in Mathematics (lower division) required: Mathematics 3A, 3B, 5A-5B. Recommended: Physics 2A-2B or 1A-1B and a reading knowledge of French and German.

Lower Division Courses

1A-1B. Elementary Functions
LIVINGSTON
Theory and use of algebraic, trigonometric, logarithmic and exponential functions, algebra and plane geometry. Mid-year students may enter only by arrangement with the department. Three units; throughout the year.

2. Mathematics of Investment
WRIGHT
Interest and annuities; amortization; sinking funds; valuation of bonds; depreciation; mathematics of building and loan associations; mathematics of life or mathematics 1A-1B.

3A-3B. Analytic Geometry and Calculus
LIVINGSTON AND MCKINTEE
A unified course in analytic geometry and differential calculus, together with an in itself and may be elected by those wishing only an introductory course. Prerequisite: mathematics 1A-1B. Students lacking one or two semesters of two years of high school algebra.

3A-4B. Engineering Mathematics
STOVALL
This course includes analytic geometry, both plane and solid; calculus, both integral and differential with special emphasis on their practical use in engineering.

5A-5B. Higher Analysis
LIVINGSTON
A unified course in algebra, trigonometry, analytic geometry and calculus with applications in the life sciences, social sciences and physical sciences. The acquisition of a good technique is emphasized. Prerequisite: Mathematics 3A-3B. Three units; both semesters.

6. Introduction to Projective Geometry
LIVINGSTON
The construction and study of conic sections by means of perspectives, poles and polars and involutions. Prerequisite: Plane trigonometry. Three units; second semester.

Upper Division Courses

101. Elementary Geometry for Advanced Students
LIVINGSTON
Selected topics viewed from the standpoint of higher mathematics. Prerequisite: Mathematics 3A-3B, or equivalent. Three units; first semester.

102. Elementary Algebra for Advanced Students
LIVINGSTON
Selected topics viewed from the standpoint of higher mathematics. Prerequisites: Mathematics 3A-3B, or equivalent. Three units; second semester.

111. Theory of Equations
LIVINGSTON
General solutions of algebraic equations; approximate numerical solutions; applications. Prerequisites: Mathematics 5A-5B. Three units; first semester. (Not offered in 1929-1930.)

112. Analytic Geometry of Space
LIVINGSTON
Planes, lines and quadric surfaces. Prerequisites: Mathematics 5A-5B. Three units; second semester. (Not offered in 1929-1930.)

MUSIC
Preparation for the Major in Music (lower division): Music 1A-1B, 2A-2B, 4A-4B. These courses are arranged with a particular view to offering everything included in the required preparation for the Secondary Teaching Credential in Music.

Lower Division Courses

1A. Sight Singing and Ear Training
L. D. SMITH
This is the first semester of the course "Music 1A-1B—Sight Singing and Ear Training." It includes, besides training and drill in sight singing and ear training, sight-singing. This course includes tonal and rhythmic dictation, rhythmic writing, sight-singing with Latin syllables and words. Text—Wedge: Ear training and sight-singing. Prerequisite: Music 1A. Two units; second semester.

1B. Sight Singing and Ear Training
L. D. SMITH
This course includes tonal and rhythmic dictation, rhythmic writing and sight singing with Latin syllables and words. Text—Wedge: Advanced ear training and sight singing. Prerequisite: Music 1A-1B. Two units; both semesters.

1C-1D. Advanced Sight Singing and Ear Training
L. D. SMITH
Tonal and rhythmic dictation, rhythmic writing and sight singing in two, three, and four parts. Text—Wedge: Advanced ear training and sight singing. Prerequisite: Music 1A-1B. Two units; both semesters.

2A-2B. Appreciation and History of Music
BRIDLEMAN
How and of what music is made. How to listen, to enjoy, and appreciate it. The development of music from the earliest times, with a particular effort to gain some acquaintance with the music of the various periods and compositions by listening to examples of it. Illustrated with numerous phonograph records. A general survey including composition. Three units; both semesters.
4A-4B. Harmony (Elementary)

Scale construction, intervals, chords, structure, modulation, through various types of seventh chord. Special attention is paid to the keyboard application of the equivalent. Three units; both semesters.

Upper Division Courses

105A-105B. Applied (Advanced) Harmony

Completion of harmonic theory—modulation, inharmonic tones, etc. Musical forms, treatment of harmony. Prerequisite: 4A-4B.

L. D. SMITH

Two units; both semesters.

107A. Conducting

Methods and materials for use in directing choruses and instrumental organizations. Prerequisite: 1A-1B, or 4A-4B.

REIDLEMAN

One unit; first semester.

108A. Orchestration

Theory and practice of arranging music for instrumental combinations. Prerequisite: 4A-4B.

REIDLEMAN

One-half unit; either semester.

MUSICAL ORGANIZATIONS

11A-11B or 11A-111B. Treble Clef (Women's) Glee Club

L. D. SMITH

Membership based on competitive try-outs. One-half unit; either semester.

12A-12B or 12A-121B. Men's Glee Club

Membership based on competitive try-outs. One-half unit; either semester.

13A-13B or 13A-131B. Orchestra

One unit; either semester.

14A-14B or 14A-141B. Band

One-half unit; either semester.

Applied Music

(Credit for applied music is available only for students majoring in Music, and is subject to special permission and arrangement.)

15A-15B or 15A-151B. Stringed Instruments

16A-16B or 16A-161B. Wind Instruments

17A-17B or 17A-171B. Voice

18A-18B or 18A-181B. Piano (Pipe Organ)

OriENTATION

An orientation course planned to furnish educational and vocational guidance to freshmen. Required of all freshmen registered in the Liberal Arts curricula. One unit; either semester.

PHYSICAL EDUCATION

(See Health and Physical Education.)

PHYSICS

Preparation for the Major in Physics (lower division). Required: Physics 1A-1B and 1C-1D; Chemistry 1A-1B; Mathematics C, 3A-3B and 4A-4B, or their equivalents. Recommended: A reading knowledge of French and German.

Lower Division Courses

1A-1B. General Physics

Mechanics, properties of matter, and heat. This course aims at a development of the fundamental ideas which underlie the subject of physics, and the application of them in the discussion of practical problems. The work is presented in lectures, text assignments, problems sets and experimental laboratory work. Two lectures, one recitation and one laboratory period each week. Prerequisites: High school physics or chemistry and trigonometry.

Three units; both semesters.

1C-1D. General Physics

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

Three units; both semesters.

2A-2B. General Physics

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

Three units; both semesters.

3A-3B. Physical Measurements

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

One unit; both semesters. (Not offered in 1929-1930.)

106. Optics in class schedule as 1C/1

BAIRD

A study of refraction, color, interference, diffraction, polarization, radiation, and optical instruments.

Three units; first semester.

107A-107B. Electrical Measurements

Devoted mainly to the study of potentiometer methods, capacity, inductance, resistance, and magnetic flux. Two lectures and one laboratory period each week.

Prerequisite: Eight units in physics.

Three units; both semesters.

108. Modern Physics

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

Three units; second semester.

PHYSIOLOGY

(See Biological Science.)

POLITICAL SCIENCE

Preparation for the Major in Political Science (lower division). Political Science 1A-1B and Economics 1A-1B or History 4A-4B or Geography 3 and 2. High school Civics is presupposed in the following courses.

Lower Division Courses

1A-1B. Comparative Government

A comparative study of typical European governments and the government of the United States. The first semester, England, France, Germany, Italy and Switzerland. The second semester, the lesser European states and the United States.

Library deposit, $2.50.

Three units; both semesters.

Upper Division Courses

101. Constitution of the United States

This course is planned to meet the requirements of the state law for the certification of teachers. The origins, principles and development of the Constitution. Library deposit, $2.00.

Two units; first semester.
111. Theory of the State
Leonard
The nature of the state, its organization and activities, and its relation to individuals and to other states. Library deposit, $2.50.
Three units; first semester.

113. American Political Ideals
Leonard
Underlying theories and principles of American governmental policy. Library deposit, $2.50.
Three units; second semester.

PSYCHOLOGY

Lower Division Courses

2A. General Psychology (for Liberal Arts students)
Bell
An introductory survey of the entire field of psychology. In the study of normal adult human behavior, and the factors which condition it, a conservative position is taken, leaving the student as nearly as possible unbiased toward the special schools of psychology.
Three units; first semester.

2B. General Psychology (for Education students)
Bell, Johnson
An introductory survey of the entire field of psychology. The fundamental facts of human behavior and the factors conditioning it are given with special emphasis upon such problems as original endowment, the learning process, work and fatigue and individual differences in their relation to education.
Three units; both semesters.

2C. Applied Psychology—Growth and Development of the Child
Johnson, Bell
A general survey of the results of modern psychology applied to self-improvement, and to the work of the lawyer, physician, clergyman, merchant, and educator. The purpose of the course is to give intelligent basis for discrimination in these fields between scientific, legitimate psychology and the pseudo-psychology that is popular because of its simplicity and palatability or because of its mysticism.
Three units; second semester.

Upper Division Courses

145. Social Psychology
Johnson
The instinctive and reflective side of man, and his adjustments to civilization, control, etc. Prerequisites: Psychology 2A.
Three units; second semester.

SOCIOLOGY
(See Economics.)

ZOOLOGY
(See Biological Sciences.)