THE EDUCATIONAL QUARTERLY
BULLETIN OF THE STATE
TEACHERS COLLEGE
AND JUNIOR COLLEGE
OF SAN DIEGO

Volume Twelve JUNE, 1924 No. 2

Announcement of

COURSES OF INSTRUCTION

OFFERED IN

Education, Teacher Training, Arts,
Literature, Science, Commerce,
Social Service

1924-1925

Published Quarterly by the State Teachers College of San Diego,
SAN DIEGO, CALIFORNIA

Entered as second-class matter, April 15, 1913, at the post office, San Diego, California, under the act of August 24, 1912

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STATE TEACHERS COLLEGE OF SAN DIEGO

Administered Through

DIVISION OF NORMAL AND SPECIAL SCHOOLS

OF THE

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FACULTY, 1923–1924

EDWARD L. HARDY, President. School Administration. B.L., University of Wisconsin; M.A., University of Chicago; study of European secondary schools, 1898–1899; Principal San Diego High School, 1906–1910. (Appointed September, 1910.)

ARTHUR G. PETERSON, Dean. Economics and Sociology. 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. ADA HUGHES COLDWELL, Dean of Women, Head Department of Household Economics. Special study, Europe, 1899–1900; special student in Domestic Science, Teachers College, Columbia University, New York City, 1907. (Appointed June, 1907.)

IRVING E. OUTCALT, Head Department of English and Dean of the Summer Session. Student, University of Illinois, 1888–1891; A.B., Stanford University, 1896; M.A., Stanford University, 1897; graduate student, Stanford University, 1897–1899; Head, Department of English, San Diego High School, 1907–1912; travel in Europe, 1910–1911; research work, Stanford University, 1921–1922. (Appointed September 1, 1912.)

MARVIN F. BEESON, Director of Education. A.B., Meridian College, 1910; Ph.D., Leipzig, 1914; graduate study, Stanford University, 1918; Professor of Education and Psychology, Colorado State Teachers College, 1917–1920; Director of Cooperative Extension Service for Teachers, Western Colorado, 1920–1923; Summer Session Lecturer at Colorado State Teachers College, University of Colorado, and Ohio University. (Appointed September 1, 1923.)

MRS. GERTRUDE SUMPTION BELL, Director of 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.)

RUTH ELIZABETH BELL, Supervisor, Training School. Ph.B., University of Chicago; graduate State Normal School of San Diego; Public School Teacher; Class Supervisor, State Normal School, Bellingham, Washington; graduate student Columbia University. (Appointed September 1, 1923.)

RUBY MINOR, Director of Primary Education. B.S., Teachers College, Columbia University; graduate student, Columbia University, two and one-half years. Stanford University, one year; Public School Teacher; Class Supervisor and Instructor, State Normal Colleges of Bowling Green, Ohio, Trenton, N. J., Emporia, Kansas; Summer Session Instructor, University of Indiana; Supervisor of Primary Instruction, Anderson, Indiana. (Appointed July 1, 1923.)

O. W. BAIRD, Physics. A.B., University of Wisconsin; graduate study at University of Wisconsin, University of California, University of Washington; Instructor in Physics, University of Washington, one year; Head Department of Science, Tacoma High School, six years. (Appointed September 1, 1921.)

RUTH C. BAGLEY, 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, ten years; Instructor, San Diego Junior College, 1919–1921. (Appointed September 1, 1921.)

MARY BENTON, Head Department of Fine Arts. Student at Rosemont Dezaley, Lausanne, Switzerland; at Chicago Art Institute; at New York School of Art; pupil of W. J. Whittemore, of New York; pupil of Mrs. Butterworth, of New York; Instructor, State Normal School of San Diego. (Appointed July 1, 1916.)

MARGARET BOSTIAN, Household Art and Science. M.A., University of Missouri; Instructor in Summer Session, University of Missouri; Instructor, Francis W. Parker School, San Diego, California. (Appointed September 1, 1923.)

LESLIE P. BROWN, Romanic Languages. M.A., Harvard University; formerly Instructor in French and Spanish, University of Chicago. (Appointed July 1, 1922.)

VINNIE B. CLARK, Geography. A.B., University of Wisconsin. Graduate student, University of Chicago; Assistant in Geography, University of Wisconsin; Oak Park, Ill., High School, 1913–1914; travel in Mexico and graduate study, University of Mexico, 1922; Summer Session Instructor, University of California, Southern Branch, 1923. (Appointed September 1, 1914.)

KATHERINE E. CORBETT, Training Supervisor. B.Pd., Michigan State College; B.S. and A.M., Teachers College, Columbia University; graduate Public School Music course, Ypsilanti Conservatory of Music; Teacher in Public Schools, Ypsilanti; special teacher in Americanization courses; Training Supervisor, Kent State Normal College, Ohio. (Appointed July 1, 1921.)

GEORGIA V. COY, Botany. Graduate San Diego Normal School; Teacher in San Diego County Schools, 1909–1910; B.S., Columbia University; Ph.D., University of Chicago; Bachelor's Teaching Diploma in Biology, Teachers College, Columbia University; graduate work at University of California, 1915. (Appointed September 1, 1912.)

N. M. CUMMINGS, Physical Science. B.S., University of California; Research Assistant, Scripps Institute, La Jolla, California. (Appointed September 1, 1922.)

LESLIE S. EVERTS, Accounting. B.L., University of Wisconsin; C.P.A.; Public Accountant in Milwaukee, Wisconsin, and San Diego, California, 1909–1921. (Appointed September 1, 1921.)

MRS. FRANCES I. GEORGESON, Assistant Director of Tests and Measurements and Training Supervisor. Graduate State Teachers College of San Diego; Teacher, Public Schools, Douglas, Arizona; San Bernardino, California. (Appointed September 1, 1923.)

EDNA H. GILLESPIE, English and Typing. A.B., Southwestern College; A.M., University of Kansas; Principal of High School, Sedgwick, Kansas; Secretary to the President and Instructor in English, University of Southern California. (Appointed July 1, 1921.)

EDITH C. HAMMACK,* Training Supervisor. Graduate State Normal School of San Diego; B.A., State Teachers College of San Jose; professional study at University of California; Public School Teacher, five years. (Appointed September 1, 1910.)

EDGAR L. HEWITT, Anthropology. D.Sc., University of Geneva, Switzerland; Director, American Schools of Archaeology; Director, San Diego Museum. (Appointed September 1, 1922.)

MYRTLE ELIZABETH JOHNSON, Biology. B.S., M.S., Ph.D., University of California; Research Assistant, Scripps Institute, La Jolla, California; Instructor, Pasadena High School, 1912–1921. (Appointed September 1, 1921.)

F. H. LANE, Public Speaking and Dramatics. A.B., A.M., Northwestern University, graduated by Northwestern School of Oratory; 1896–1898, Instructor of English and Public Speaking at Oberlin College; 1900–1903, Professor of English and Public Speaking, Northwestern College; 1903–1907, Professor of English and Public Speaking, Tabor College; 1907–1912, Professor of Public Speaking, Washburn College; 1912–1923, Professor of Public Speaking, University of Pittsburgh. (Appointed September 1, 1923.)

CHARLES B. LEONARD, History. A.B., M.A., University of California; graduate study, one year, at University of California; Instructor in History, Lowell High School, San Francisco. (Appointed September 1, 1921.)

GEORGE R. LIVINGSTON, Mathematics. B.S., M.A., University of California; graduate study, one year, University of California; Instructor, San Diego Junior College, 1914–1918; Instructor, Santa Barbara Junior College, 1919–1921. (Appointed September 1, 1921.)

* On leave of absence, 1923–1924.

BEULAH MARKER, Assistant Fine Arts. B.S., Columbia University; Teachers College diploma; graduate of Los Angeles State Normal School, with General Professional and Special Art diplomas; Assistant in Fine Arts Department, Teachers College, Columbia University, 1918–1919. (Appointed July 1, 1919.)

WILLIAM L. NIDA, Supervisor of Practice and Appointment Secretary. Ph.B., Ohio State University; graduate student, University of Chicago; Principal of Ohio High Schools, nine years; Superintendent of Schools, seventeen years, Illinois. (Appointed July 1, 1921.)

MARIAN L. PEEK, Supervisor, Training School. A.B. and A.M., 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.)

CHARLES E. PETERSON, Physical Education. Student at Oregon Agricultural College, the University of California and the State Normal School of San Diego; student two years under Robert Krohn; Director of Playgrounds, Y. M. C. A. Physical Education, Physical Education and Recreation in United States Army camps; Instructor, Edison Junior High School, Berkeley, California; Instructor, State Normal School of San Diego. (Appointed July 1, 1921.)

LEO. F. PIERCE, Chemistry. B.S., Grinnell College; M.Sc., Tulane University; Ph.D., Stanford University; Research Assistant and Instructor, University of Idaho; Professor of Chemistry, Washburn College; Instructor, Tulane University; University Fellowship, Stanford University. (Appointed September 1, 1923.)

ALICE M. RAW, Physical Education. A.B., University of Southern California; Assistant in Physical Education, Polytechnic High School, Los Angeles; Assistant in Physical Education, University of Southern California. (Appointed September 1, 1923.)

MABEL M. RICHARDS, Arithmetic and Training Supervisor. A.B. and A.M., University of Missouri; graduate student, University of Southern California; Rural School, City School and High School Teacher; City Superintendent of Schools, six years; Supervisor of Mathematics, Training School, State Teachers College, Warrensburg, Missouri; Director in Demonstration School, Northeast Missouri State Teachers College, two years. (Appointed September 1, 1921.)

CHARLES R. SCUDDER, Industrial Arts. Preparation at University of Illinois; Teacher of Industrial Work at Grand Rapids, Michigan, and Director of Industrial Arts at Washington State Normal School at Bellingham. (Appointed September 1, 1918.)

W. T. SKILLING, Agriculture and Nature Study. State Normal School, Los Angeles, California; M.S., University of California; Teacher in Public Schools, Los Angeles, California, several years; Assistant in Physics, University of California, 1899–1901. (Appointed September, 1901.)

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

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

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

JESSIE RAND TANNER, Head Department of Physical Education. Graduate Boston Normal School of Gymnastics; B.S., Columbia University; Bachelor's Teaching Diploma, Teachers College, Columbia University; tutor, Brookline, Massachusetts, 1901–1902. (Appointed July, 1904.)

NESTA M. THOMPSON, French and German. M.A., Washington University, St. Louis, Missouri; formerly Assistant at Washington University. (Appointed September 1, 1922.)

WILLIAM H. WRIGHT, Commerce. B.S., University of California; graduate study, one year, University of California; Head Department of Commerce, Union High School, Visalia, California, 1919–1921. (Appointed September 1, 1922.)

APPOINTMENTS FOR 1924–1925

WILLIS E. JOHNSON, Director of Education. Graduate of State Normal School, St. Cloud, Minnesota; Ph.B., A.M., Illinois Wesleyan University; A.B., A.M., Ph.D., University of Minnesota; Sc.D., South Dakota State College; LL.D., Dakota Wesleyan University. Taught in rural, village and city schools, state normal school and university. President of state normal schools at Ellendale, North Dakota, and Aberdeen, South Dakota, and of South Dakota State College, Brookings. Member of staffs of the educational surveys of Virginia and Alabama. (Appointed April 1, 1924.)

SPECIAL LECTURERS

Summer Session of 1924

H. C. JOHNSON, M.A., Civic Education. Superintendent of City Schools, San Diego.

ADA YORK, School Law and Administration. County Superintendent of Schools, San Diego.

LUCILE CZARNOWSKI, A.B., Physical Education. Instructor, Physical Education, Berkeley, California, High School.

ALICE FOSTER, M.A., Geography. Assistant Professor of Geography, Mount Holyoke College.

GEORGE M. MCBRIDE, Ph.D., Geography and Geology. Associate Professor of Geography, University of California, Southern Branch.

PERCY A. MARTIN, Ph.D., History. Professor of History, Stanford University.

ELSIE A. POND, M.A., Education. Instructor, Tempe Normal School of Arizona.

MARTIN H. TRIEB, A.B., Physical Education. Former Instructor, University of California.

ZORAH HUDDLESTON, Nutrition as an Educational Problem. Nutrition Educator for the California Dairy Council.

HISTORICAL SKETCH

The State Teachers and Junior 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 28, 1921, the designation of State Teachers College, its full legal title being, "State Teachers College of San Diego."

In June of 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) are offered, both to students who wish to prepare for the work of the upper division (junior and senior years) of colleges and universities and to students who wish to prepare 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.

For the certification of teachers, the authorized courses (elementary, special elementary, special secondary and junior high school) are offered, and require, approximately, two and one-half years, three years and four years of work done in residence.

GENERAL INFORMATION

Calendar, 1924–1925

June 30, Summer Session begins
August 8, Term I of Summer Session ends
September 5, Term II of Summer Session ends
September 8–13, Registration
September 15, First Semester begins
November 14, Term I ends
December 20, Christmas Recess begins
January 4, Christmas Recess ends
January 30, Term II ends
February 2, Second Semester begins
April 10, Term I ends
April 11, Easter Recess begins
April 19, Easter Recess ends
April 20, Term II begins
May 1, Dedication Day
May 30, Memorial Day; a holiday
June 19, Commencement
June 20–28, Interim Recess
June 29, Summer Session begins

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 six weeks (the regular Summer Session) and a second term of four weeks in which professional courses of a seminar type are offered to students and teachers whose certification needs may be met by supplemental units of credit (not to exceed 4) earned in this term. Students may enter at the beginning of either semester and at the beginning of Term I of the summer quarter.

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

Registration of students will be made from September 8 to September 13. A duly certified transcript of the applicant's record must be in the possession of the Registrar of the Teachers College or the Dean of the Junior College on or before the day of the applicant's registration.

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

DEPARTMENTS OF INSTRUCTION

Teachers College

The Teachers College offers courses for the training of teachers in both the primary and upper divisions of the elementary school, the junior high school, and the special fields of Fine Arts, Industrial Arts, Home Making, Music and Physical Education. The degree B.A. (Major in Education) is granted to students completing the four-year courses in elementary and junior high school education.

Certificate courses for candidates for the elementary certificate and for the elementary special certificates of the several types will continue to be regularly offered for those who wish to teach before completing a degree course. The special certification courses offered include preparation for the certificate of elementary and junior high school grade of the Arts Type (general class), Music Type (public school music), Prevocational Type (home making, occupations and home mechanics), Physical Education Type (physical training activities), and for the special certificate of secondary grade in physical training activities.

Students who wish to enter for special certificate courses should not fail to note the matriculation requirements outlined on page 25.

Junior College.

In the Junior College division courses are offered in the following fields: Anthropology, Economics, Engineering, English, Foreign Language, Geography, Graphic Art, History and Political Science, Home Economics, Hygiene, Mathematics, Music, Natural Science, Philosophy and Psychology.

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," "Curricula," 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 students, unless excused for cause, will be required to take the courses in physical education prescribed for freshmen and sophomores. Furthermore, each student will be expected, as a matter of efficient student and community life, to keep himself in the best possible physical condition.

Standards of scholarship are based upon high entrance standards. All freshmen are required to take the course in the technique of study, which includes tests of reading ability, of general intelligence, of attainment in English, together with student self-rating and other training in methods of efficient study and work. Frequent ratings of the student are made by his instructors, so that he may at all times know how he stands; but the ability of the student to manage his own educational career and to come reasonably near to his best capabilities are factors that will count in his final ratings.

Standards of character, as developed by and measured by honest student work, and as revealed by evidences of the possession of thorough-going self-respect and community feeling, particularly as to ideals in the important matters of citizenship and future parenthood, are more important than all else, and every student will have full opportunity to show that he is worthy and that he has the capacity and the will to manifest and develop character.

For the assistance of students and student organizations, adviserships 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 the College.

Concerning appointments to teaching positions—The Appointment Secretary.

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

Concerning supervision of practice teaching, conferences, etc.—The Director of Teacher Training.

Concerning matriculation, program of studies and teaching, credits, etc.—The Registrar (Teachers College); The Dean (Junior College).

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 supervisors of training.

Concerning student-body affairs—The executive officers of the student body; The Dean of the College; 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 central student body organization, The Associated Students. The following list indicates the major activities:

Scientific: Chemistry Club, Engineering Club, Architectural Club.
Literary: English Club, Poetry Club, Press Club, Debate Club.
Dramatic: Two-Masque Players.
Musical: Treble Clef Club, Male Chorus, Choral Club, College Orchestra.

Social and Athletic

Men: Men's Club, Epsilon Eta Society, Eta Omega Delta Society, The "Golden S," College "Y" Club.

Women: Associated Women Students, Women's Athletic Association, College Y. W. C. A., J. U. G. Club, Shen Yo Society, Sphynx Society, Fra Di Noi Club, Komo Klub, O. N. O. Club, and the social clubs, Pristis, Albatross, Petrel, Triton.

Men's Athletics: Football, baseball, basket ball, track, swimming and tennis.
Women's Athletics: Tennis, basket ball, fencing, rowing and swimming.
Publications: The Paper Lantern (weekly), and The Del Sudoeste (year book).

APPOINTMENT SERVICE

The department of recommendations has charge of the placement of graduates, assisting them in securing teaching positions and assisting superintendents and 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 EXPENSES

Tuition is free to all students.

Registration fee, each semester (not returnable)	$1 50
Student body fee, each semester (not returnable)	4 50
Men's and women's organizations, each (not returnable)	50

LABORATORY FEES AND DEPOSITS

(Payable each semester)

	Fee	Deposit
Bacteriology ($5 returnable)	$10 00	$5 00
Biology 10A-10B ($2 returnable)	2 00	2 00
Botany ($2 returnable)	3 00	2 00
Chemistry ($2.50 returnable)	7 50	2 50
Clothing	----	1 50
Fine Arts (Advanced Design, Stage Craft, Costume Design)	----	1 00
Food Economics	----	3 00
Industrial Arts	----	1 00
Pattern Shop	----	2 50
Physical Education (men)	----	1 00
Physics ($3 returnable)	1 00	3 00
Physiology	1 00	
Surveying	1 00	
Woodwork	----	1 50
Zoology ($2 returnable)	3 00	2 00

EXPENSES: WOMEN STUDENTS

The Dean of Women will furnish, upon request, addresses of homes in which board and room may be secured, also a list of apartment houses which may be patronized by women students. Occasionally students are placed in homes where they may work for board and room, but it is not advisable to depend entirely upon such an opportunity because of the irregularity of the demand.

Board and room may be procured for from $40 to $45 a month. Apartments, consisting of one room, kitchenette and bath, rated at $18 to $35 a month, will accommodate one or two persons. A cafeteria is maintained by the college where noon-day meals are served at cost.

The minimum expense for one semester of eighteen weeks is estimated at $210: Board and room, $180; books, paper and other necessary materials, $15; registration and student-body fees, $6.50; laboratory fees, $1 to $10. Clothing, laundry, car-fare, recreation and personal incidentals are factors for the student to decide, but it is suggested that clothing be of the simplest type, such as gingham dresses, one-piece woolen dresses, one warm outside coat, and a very informal afternoon or evening dress with suitable accessories.

SELF HELP AND LOAN FUND

Opportunities for part-time employment for students not residents of San Diego are frequent, particularly in the cases of young women who are able to assist as mother's helpers in housework or in the care of children. A limited amount of clerical work in offices and library, and of employment in the school cafeteria, may be offered from time to time, but ordinarily is not sufficiently remunerative to reduce expenses materially. The loan fund is administered for students in the professional courses, seniors in teacher training being eligible for assistance. Application should be made to the Dean of Women. Men should consult the Dean concerning part-time employment.

BUILDINGS AND EQUIPMENT

The college building houses the library, the auditorium, the gymnasium, offices, laboratories and classrooms. The training school is housed in three separate units, and new buildings for this department are planned for the biennial period 1925–1927.

The building for Applied Arts was made ready for occupancy in September, 1922, as a result of the remodeling of the old Training School Building. A new building for physical education of men was finished January 1, 1923, and new quarters for the physical education of women at the same date.

The institution has facilities and equipment as follows:

A College Library of 22,000 volumes.

Laboratories for Physics, Chemistry, and Biological Science.

Shops, studios and laboratories for the courses in Fine and Industrial Arts and in Home Economics.

For Physical Education, a well equipped gymnasium, lockers and showers, classrooms, an athletic field, tennis courts, etc.

PHYSICAL CONDITIONS: CLIMATE

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

OPPORTUNITIES FOR CULTURE AND RECREATION

Environmental conditions other than the physical ones must be taken into account by the student choosing a college. The institutions and facilities that go to make up the "greater college" or the "greater university" must be present in a college or university city, if the student is to work in a genuinely cultural atmosphere. In cultural standards in art, music, literature, and science, San Diego is an eligible

college city because while it is not a large city yet it has certain metropolitan advantages for the student. Many of these are to be found in the heritage resulting from the San Diego Exposition of 1915–1916, including the buildings themselves, which in their consistent and effective carrying out of motifs of the best types of Spanish colonial art, make up one of the finest exhibits in architecture in America. 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 archaeology. There is complete co-operation with the directing boards controlling the collections, and the Director of the San Diego Museum is a member of the faculty of the College. The Art Gallery of the California Building often contains excellent exhibitions of pictures, and there are plans for the development of a Public Conservatory of Music for which the great out-of-door organ furnishes a beginning. Balboa Park, in which all of these facilities are located, also contains a modern horticultural farm and a great stadium for games, community gatherings and pageants.

At La Jolla, within the city limits, the Scripps Biological Institute, operated by the University of California, gives opportunity, especially since the affiliation of the Junior College division of the San Diego State College with the University, for important co-operation in the biological field.

The pre-engineering courses in the Junior College will benefit greatly because the selection of San Diego by the United States Navy as the site of important navy activities, such as the Marine Base, the Naval Training Station, Naval Aviation and the Destroyer Force Base, has made available a great deal of machinery, material and equipment useful for study and observation, especially in the field of electrical engineering.

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

The professional, teacher-training courses profit because of the policy of co-operation generously followed by the City School Department, which has resulted in the merger of the City Junior College with the Teachers College, and 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 kindergartens, elementary schools, junior high schools, and senior high schools, furnishes unusual opportunities for observation and demonstration to students in training, and for co-operation 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 worth while type of topic and appeal.

Routine and Procedure

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

One problem, in process of solution, is that of student relations to the courses of study. At present, the studies are prescribed in arrangements of curricula and "courses," with certain elections by the individual student, and these prescriptions 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 members.

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

REQUIREMENTS FOR ADMISSION

I. Freshman Standing.

a) A graduate of a California high school may enter either the Teachers College or the Junior College division of the San Diego State College without examination, provided the following requirements are satisfied:

1. The candidate must be duly certified as a graduate of an accredited California high school.
2. The graduate must have completed a four-year high school course aggregating at least 15 standard units of preparatory work, including the following requirements for graduation prescribed by the California State Board of Education: English, 2 units; United States History and Civics, 1 unit; Laboratory Science, 1 unit; and two majors of at least 3 units each—a major consisting of three years of study in one of the following groups: (a) English (in vocational courses 1 unit of citizenship may be included with 2 units of English to make one major; (b) Mathematics, including Mechanical Drawing; (c) History and Social Science; (d) Physical and Biological Sciences; (e) Foreign Language—3 or more units in one language, or 2 units in each of two languages.
3. The candidate must be specially recommended for admission to the San Diego State College on the basis of a scholarship record that satisfies the prescribed requirements for admission to the University of California.

N. B.—The admission form prescribed by the University of California must be used, and will be furnished upon request.

b) A candidate from a secondary school outside California that is accredited by the New England College Entrance Certificate Board, by the North Central Association of Colleges and Secondary Schools, or by other colleges and universities of recognized standing, will be admitted to freshman standing provided he has satisfied the requirements in (2) above, and has maintained an average scholarship standing well above the mark required by the school for graduation.

c) A graduate of a California secondary school not accredited who is strongly recommended by the principal of his school will be admitted to freshman standing provided he satisfactorily passes examinations in at least 8 units of work selected from subjects prescribed for graduation by the California State Board of Education. Other candidates who are unable to present satisfactory school certificates may be admitted by successfully passing examinations in at least 15 standard high school units. Matriculation examinations are held in the San Diego State College in the first week of September and the last week of January of each year.

Certificates of successful examinations before the College Entrance Examination Board will be accepted in lieu of matriculation examinations conducted by the San Diego State College. The entrance examinations 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 Examination Board, 431 West 117th street, New York, N. Y. They must be made upon a blank form to be obtained from the Secretary of the Board upon request.

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PREPARATION FOR THE VARIOUS CURRICULA

Junior College

The following preparatory subjects are required for admission to the Junior College curricula leading to certificates in the curricula in Letters and Science, Commerce, Journalism and Agriculture, and in the Premedical and Prelegal curricula:

English [1]	2 units
A Foreign Language [1]	2 units
A Laboratory Science [2]	1 unit
Algebra	1 unit
Geometry	1 unit
United States History and Civics	1 unit
Electives	7 units

[1] Three units of English and 2 units of French or German are required for admission to the Premedical curriculum.

[2] Chemistry is required for admission to the curriculum in Agriculture, and to the curriculum in Letters and Science when the candidate intends to specialize in Home Economics, Geography, and Physical Education and Hygiene. Chemistry and Physics (2 units) are required for admission to the Premedical curriculum, and to the curriculum in Letters and Science when the candidate intends to specialize in nursing or in a natural science. (Physics is recommended, but not required for students who intend to specialize in Zoology or Geography.)

The following preparatory subjects are required for admission to the Junior College curricula leading to certificates in Engineering (Mechanical, Electrical, Civil or Chemical):

English	2 units
Elementary Algebra	1 unit
Algebraic Theory	½ unit
Plane Geometry	1 unit
Trigonometry	½ unit
Physics	1 unit
Chemistry	1 unit
United States History and Civics	1 unit
Geometrical Drawing	1 unit
Electives [1]	6 units

Teachers College

A candidate for admission to the Teachers College curricula must have completed a standard high school course of 15 units, including the following:

Three units in each of two of any of the following five groups of subjects: English, Mathematics, Foreign Language, Physical and Biological Science, Social Science, with a required minimum, further of 2 units in English, 1 in United States History and Civics and 1 unit in a Laboratory Science.

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 deem equitable. Every such candidate is required to present a duly certified statement of his college record together with a statement showing in detail the basis upon which the applicant was matriculated and the preparatory subjects for which matriculation credit was given.

Holders of California Teachers' Certificates, or holders of similar certificates recognized by the California State Board of Education, may be admitted with credit to be determined by the Committee on Advanced Standing. All teachers with experience must present verified statements of successful experience for the time (up to five years) for which they wish credit.

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

[1] French or German (2 units) is required for admission to the curriculum in Industrial or Engineering Chemistry.

(Note.—Deficiencies in certain subjects may be removed after the candidate has been admitted to freshman standing. The removing of such deficiencies, however, may make it necessary for the student to extend his college course beyond the normal period of time required for its completion.)

III. Special Students

Junior College

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 competent to undertake certain courses may be admitted to special standing. Applicants will not ordinarily be admitted directly from the secondary schools to the status of special students. Entrance examinations in the subjects of fundamental importance for the work proposed will be assigned whenever it seems advisable. Applicants for admission to special status will be required to take a psychological test before admission. Special students may become candidates for graduation upon satisfying the regular entrance requirements.

Teachers College

A candidate not less than 24 years of age (21 years of age if honorably dismissed from war service, army, navy or auxiliary) may be admitted to special standing, and given such credit as may be determined by the Committee on Advanced Standing.

GENERAL REGULATIONS

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 continuing student who registers after the close of the first week of the semester is subject to limitation of his study list and to a late registration fee of one dollar a day. Changes in study lists may be made only with the approval of the proper study-lists officer. A fee of one dollar is charged for a change in the study list after the close of the regular registration period.

Matriculation

A student is matriculated when he has satisfied all entrance requirements and has demonstrated his ability to do satisfactory college work. The standing of all students is therefore provisional during the first semester of residence.

A student who enters with credit for a subject in which he did not receive a recommending grade may, under certain conditions, be permitted to remove his matriculation deficiency either (1) by passing an examination in the subject with a grade of B or (2) by continuing the same line of study in college in at least 6 units of work with a grade of B.

Classification

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

Limited students are partial course students who, for adequate reasons, have been permitted to register for less than 12 units of work.

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

For convenience in administration students who have completed 28 to 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 actual work per week through one semester—one hour of lecture or recitation, together with two hours of preparation, or three hours of field or laboratory work.

Sixteen hours, or units, per week of recitations or lectures, or an equivalent in laboratory work, constitute an average semester's program. During the first semester of work at the College no student will be permitted to register for more than 16 units of work in addition to physical education. After his first semester of work, a student is ordinarily not permitted to register for less than 12 nor more than 18 unit-hours of new work, in addition to physical education, unless permission is given in advance by the proper study-lists officer. Ordinarily not more than 18 units, in addition to physical education, will be credited toward graduation for the work of any semester, unless the student was registered for at least 12 unit-hours in the preceding semester and attained an average grade of not less than B.

Special Subject Requirements

English Composition

All entrants to the College are required to take a special examination in elementary English composition. No student who has failed to pass this examination will be given a certificate in either the Teachers College or the Junior College.

Physical Education and Hygiene

All regular students upon admission to the College must report to the proper health examiner for enrollment in physical education classes. A student may be excused from exercises in physical education on account of illness or physical disability only by petition to the health examiner.

Credit for work in hygiene is required in the freshman or the sophomore year.

Scholarship Grades and Grade Points

The following grades are used in reporting the standing of students at the end of each semester: A, excellent; B, good; C, fair; D, passed; E, conditioned; F, failed.

Grade points are assigned as follows: Grade A, 3 points per unit; B, two points per unit; C, one point per unit; D, no points; E, minus one point per unit; F, minus one point per unit. Removal of grade E or F will entitle the student to a cancellation of the "negative grade points" and a grade of D for the course (provision for "negative grade points" to be effective in and after September, 1924).

To qualify for a certificate in either the Teachers College or the Junior College, or for a transcript of scholarship record in transferring to another collegiate institution, a student must have earned as many grade points as he has earned units of credit; that is, he must have attained an average of at least "C" grade in all work undertaken at the College.

Conditions and Failures

Credit is not given for courses in which the student has been given 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, for good reasons, has been absent from class meetings or examinations or has failed to perform a definite part of the work of the course. A condition or "incomplete" not removed before the end of the following semester is considered a failure. In case of failure in a course no credit is given until the course has been repeated.

Disqualification

A regular student who fails either (1) to pass in at least 8 units of duly registered work, or (2) to obtain at least 12 grade points in any semester is disqualified for further attendance at the College unless, after due consideration of the merits of the case, the Committee on Scholarship decides that the student shall be placed on probation.

The above rule applies with full force to special students who are registered in 12 or more units of work, but is modified in its application to limited students by considerations of outside work and condition of health.

A disqualified student may be reinstated, after an interval of one semester, for reasons satisfactory to the Committee on Scholarship.

A limited student who fails to pass in all subjects for which he is registered and every other student who fails to pass in 12 units of work in any quarter is ineligible in the next succeeding quarter to represent the College in connection with any athletic, literary, musical, dramatic, social, or other organization.

Special Examinations and Re-examinations

Entrance examinations and examinations taken for the purpose of removing matriculation deficiencies or making up a course left "incomplete" are regarded as special examinations. Re-examinations are permitted only for the purpose of removing deficiencies incurred in College courses and can not be taken for the purpose of improving the grade mark recorded on the student's permanent record.

A fee of two dollars, payable in advance, is charged for every special examination and re-examination.

Withdrawals From Class

A student may not withdraw from class without the permission of the proper study-lists officer. An unauthorized withdrawal from a class may result in a mark of failure on the student's record. An unauthorized withdrawal in the second quarter of a semester is interpreted as a failure in the course.

Leave of Absence

A student should apply to his instructor for a leave of absence or an excuse for having been absent from a class exercise. A leave of absence for one or more days should be obtained from the proper dean. An excuse for absence does not relieve the student from completing all the work of each course to the satisfaction of the instructor.

Honors

Honorable mention is granted with a Teachers College or a Junior College certificate to a student who has attained twice as many grade points as units of credit.

Fellowships

Fellowships (without honorarium) have been instituted, a fellowship to be conferred by vote of the faculty on nomination of the department concerned, and to entitle the recipient to special training and to recommendation to county boards of education for the special elementary or the special junior high school certificate.

Candidates must be graduates of California, or equivalent, Teachers Colleges, and must submit satisfactory evidence of special fitness and attainment, or must be able to show two years of college or other equivalent training and special fitness.

Holders of fellowships who have done one year of satisfactory work, will be entitled to recomendation for the special elementary and junior high school certificate: provided, that within the period specified, they are able to meet the requirements of the State Board of Education for special certification.

PROFESSIONAL COURSES

The Elementary Diploma Course

(Lapses September 15, 1927)

This course can be completed, ordinarily, in two and one-half academic years, or in two calendar years by attendance at summer sessions. No student, except by special permission of the proper study-lists officer, will be permitted to carry more than 16 units of work a semester, or six units in a summer session. The total requirement is 76 semester units.

Note.—This course of seventy-six units will be superseded by the three-year (ninety-six unit) course outlined below, in the cases of all students who enter at such times as will bring completion of the course to the date September 15, 1927. The latest date at which a candidate can safely enter for the course of seventy-six units will be September, 1925, provided that his program includes the summer sessions of 1926 and 1927.

First Year (Two Semesters)[1]	Units of Credit	
Education I (Introduction to Study of Education)		4
Education IIA (Psychology of Elementary School Subjects)		3
Curriculum Studies		
Language	2.0	
History	2.0	
Geography	2.5	
Mathematics	2.5	
Natural Science	2.0	
Art	2.5	
Music	2.5	
		16
Biology or Psychology		6
Physical Education		3
		32

[1] Four or five units of electives may be taken in the first year by postponing certain professional courses to the second year.

Second Year (Three Semesters or Two Semesters and Two Summer Sessions)	Units of Credit
Education IIB (Psychology of Elementary School Subjects)	2
Principles of Elementary Education	2
Educational Measurements	2
School Hygiene	2
Physical Education	3
Practice	12
Electives	15
Civic Education [2]	2
Public Education in California [2]	2
The Constitution of the United States [2]	2
	44

The general collegiate electives must be taken from the following groups:

1. Language Subjects, including both linguistic and literary courses in English.
2. Natural Science Subjects, including Mathematics, Geography, the Physical Sciences, etc.
3. Biological Science.
4. Social Science, including Rural Life, Selected Aspects of History, Sociology, Political Science, etc.
5. Psychology, Principles of Education, etc.

Six units of special elective work must be taken in the following groups:

Manual and Industrial Arts
Household Arts
Physical Education
Music
Fine and Applied Arts
Elements of Agriculture

The Revised Elementary Diploma Course

(Required of all students entering after September, 1925)

Pre-Education Curriculum (Freshman Year)	Units of Credit	
English Composition (Written and Oral)	6	
Problems of Contemporary Civilization	4	
Social Ethics and How to Study	0.5	
Physical Education	1	
Psychology 2A-2B	6	
Natural Science *	6	
Group Electives *	9	
		32.5
Education Curriculum (Sophomore Year)		
Education II	5	
Curriculum Studies:		
Geography	2.5	
Mathematics	2.5	
History	2.0	
Natural Science	2.0	
Art	2.5	
Music	2.5	
	14	
Educational Measurements	2	
Physical Education	3	
Group Electives *	8	
		32

[2] Upper division courses: can be taken only by students with 60 units of credit.

* The natural science and group electives must be so arranged as to include 12 units of social science and 12 units of biological and physical science during the three years.

Education Curriculum (Junior Year)	Units of Credit	
Principles of Elementary Education	2	
Public Education in California	2	
The Constitution of the United States	2	
Education for Citizenship	2	
Practice in Teaching	12	
Physical Education	2	
Health Education	2	
Group Electives *	8	
		32
		96.5

Pattern for Second Year in a Junior College

Group electives of sophomore and junior years *	16
Suggested electives to cover the fundamentals in the elementary school curriculum:	
Health Education	2
Physical Education	2
The Constitution of the United States	2
Art (Freehand Drawing and Design)	2
Music (Elements of)	2
Geography (preferably North America)	2
History (preferably Culture History)	2
	14
Other Electives	2
	32

Note.—Six units of the fundamentals outlined above can be done in the College Summer Session, if the student finds it difficult to arrange for them in the Junior College.

THE DEGREE COURSES

In accordance with legislation enacted in 1921, the State Board of Education has prescribed the following general requirements for the degree of Bachelor of Arts:

Lower Division (Freshman and Sophomore Years)

I. Required — 42 units
- 1. Psychology — 6 units
- 2. Social Sciences — 12 units
  - a) Contemporary Civiiization
  - b) Economics
  - c) Political Science
  - d) Sociology
  - e) Geography
- 3. Biological and Physical Sciences — 12 units
- 4. English (including oral English) — 6 units
- 5. Physical Education — 6 units

42 units

II. Required Group Electives [1] — 22 units
1. English
2. History
3. Political Science
4. Sociology
5. Education [2]
6. Biological Sciences
7. Philosophy or Psychology

[1] Students must choose at least two fields, each not less than 6 units.

[2] Not more than 12 units in the Education group is to be allowed in the lower division nor more than 40 units in the upper and lower divisions of the four-year curricula. If the Psychology offered in Roman One is Educational Psychology, the 12 units of Education in the lower division shall include the same.

Not more than a total of 50 units in any one subject or group of subjects listed above is to be allowed in the upper and lower divisions of the four-year curricula.

* The natural science and group electives must be so arranged as to include 12 units of social science and 12 units of biological and physical science during the three years.

II. Required Group Electives—Continued.

8. Mathematics
9. Physics
10. Chemistry
11. Geography
12. Greek or Latin
13. Romanic Languages
14. Art
15. Music
16. Agriculture
17. Commerce
18. Physical Education
19. Industrial and Mechanical Arts
20. Home Economics

UPPER DIVISION (Junior and Senior Years)

III. For all degree courses leading to high school certification of teachers of special subjects, the minimum number of units of professional work shall be the same as the minimum number prescribed by the State Board of Education for the certification of general high school teachers; the minimum number of professional units for all degree courses leading to elementary certification shall be 32; and for all types the maximum number of professional units shall be 40. Every degree course shall include the following professional subjects:

1. Laboratory Practice in Teaching, of which there must be a minimum of 5 units of classroom teaching	10 units
2. School Administration, inclusive of School Law	2 units
3. Objectives in Education	3 units
4. Educational Psychology	3 units
5. Civic Education	2 units
	20 units

IV. Electives listed under II above, to be administered on the same conditions as specified above 40 units

Total 124 units

A student entering a State Teachers College without 2 years of Mathematics (other than Arithmetic) and 2 years of one Foreign Language must complete (before he receives the Baccalaureate Degree) 1 year (6 units) of Mathematics and 1 year (10 units) of a Foreign Language.

Individuals or groups of individuals wishing to teach before completing the full course may pursue in the lower division the work listed for the upper division. It is understood that such an inversion of sequence is approved that the student may enter the teaching service. If the student fails, after four years, to return to a State Teachers College for the completion of his work, his candidacy for the degree automatically lapses. If he returns after his candidacy has lapsed, the work previously taken will be evaluated upon a basis of the requirements in effect at the time of his return.

Each institution is authorized to adjust its several courses for the training of teachers to the minimum requirements herein prescribed, provided that they meet the requirements of the State Board of Education for certification in the various fields.

For graduation from the elementary diploma curriculum, a student is required to do at least sixteen (16) units of work in residence, from any of the three-year curricula not less than twenty-four (24) units of work in residence, and from any of the four-year curricula not less than thirty-two (32) units of work in residence.

CURRICULA FOR THE A.B. DEGREE

(Major in Education)

ELEMENTARY SCHOOL COURSE—LOWER GRADES

LOWER DIVISION — First Year	Units
General Psychology (2A)	3
Applied Psychology (2B)	3
Social Science (Government 1A and 1B or Economics 1A and 1B or History of Modern Europe 4A and 4B or History of Americas 8A and 8B, etc.)	6
Biology	5
English	6
Physical Education	3
Electives [1]	6
	32

Second Year

Social Science (General Sociology 50, and Social Psychology or Introduction to Economic Geography, etc.)	6
Biology	7
Music I and II	3
Elementary School Natural Science	3
Physical Education	3
Electives [1]	10
	32

UPPER DIVISION — Third Year

Educational Psychology	6
Curriculum Studies	6
Educational Measurements II	2
School Administration and California School Law	2
Civic Education	2
Electives [2]	14
	32

Fourth Year

The United States Constitution	2
Outlines of Culture Growth, or History of Education	2
Professional Electives	5
Laboratory Practice	11
Electives [2]	12
	32

ELEMENTARY SCHOOL COURSE—UPPER DIVISION

LOWER DIVISION — First Year	
General Psychology (2A)	3
Applied Psychology (2B)	3
Social Science (Government 1A and 1B or Economics 1A and 1B or History of Modern Europe 4A and 4B or History of Americas 8A and 8B, etc.)	6
Biology	5
English	6
Physical Education	3
Electives [1]	6
	32

[1] Electives in the lower and upper divisions must include 1 year (6 units) of Mathematics, if two years were not taken in high school, and 1 year (10 units) of a Foreign Language, if not previously taken in high school.

[2] Must include 6 units in the field of Music and Physical Education, and 6 units in the field of Fine and Industrial Arts.

Second Year	Units
Social Science (General Sociology 50, and Social Psychology or Introduction to Economic Geography, etc.)	6
Biology	7
Physical Science	6
Physical Education	3
Electives [1]	10
	32

UPPER DIVISION — Third Year

Educational Psychology	6
Curriculum Studies	6
Educational Measurements II	2
School Administration and California School Law	2
Civic Education	2
Electives [2]	14
	32

Fourth Year

The United States Constitution	2
Outlines of Culture Growth, or History of Education	2
Professional Electives	5
Laboratory Practice	11
Electives [2]	12
	32

JUNIOR HIGH SCHOOL COURSE

LOWER DIVISION — First Year

General Psychology (2A)	3
Applied Psychology (2B)	3
Social Science (Government 1A and 1B or Economics 1A and 1B or History of Modern Europe 4A and 4B or History of Americas 8A and 8B, etc.)	6
Biology	5
English	6
Physical Education	3
Electives [1]	6
	32

Second Year

Social Science (General Sociology 50, and Social Psychology or Introduction to Economic Geography, etc.)	6
Biology	7
Physical Science	6
Physical Education	3
Electives [1]	10
	32

UPPER DIVISION — Third Year

Educational Psychology	6
Curriculum Studies	6
Educational Measurements II	2
School Administration and California School Law	2
Civic Education	2
Electives [2]	14
	32

[1] Electives in the lower and upper divisions must include 1 year (6 units) of Mathematics, if two years were not taken in high school, and 1 year (10 units) of a Foreign Language, if not previously taken in high school.

[2] Electives must include 6 units each of two fields, also in the lower division.

Fourth Year

	Units
The United States Constitution	2
Outlines of Culture Growth,, or History of Education	2
Principles of Secondary Education	2
Laboratory Practice	11
Professional Electives	3
Electives [2]	12
	32

CURRICULA FOR SPECIAL CERTIFICATION

NOTE.—The curricula for special credentials of elementary and junior high school grade must meet the requirement of (a) three years of training (90 to 96 semester hours) beyond the completion of a standard high school course, or (b) two years of such training and either two years of successful experience in teaching the subject or subjects named in the credential or two years of practical experience in the field of the subject.

The curricula for special credentials of secondary school grade must include (a) four years of training (120 to 128 semester hours) beyond the standard high school course, or (b) three years of such training and either two years of successful experience in teaching the subject or subjects named in the credential or two years of practical experience in the field of the subject.

For descriptions of the courses, consult the pages under the headings "Professional Courses" and "Collegiate Courses."

PHYSICAL EDUCATION TYPE

(Physical Training Activities)

Credential of Elementary and Junior High School Grade

PROFESSIONAL REQUIREMENTS

For a long-term Credential: The general requirements must include at least twelve (12) semester-hours of courses in the Department of Education distributed approximately as follows:

	Semester Hours
1. Educational Psychology and Principles of Teaching	3
2. Public Education in California	2
3. Education for Citizenship	2
4. Practice Teaching	5
Total	12

(Credit for practice teaching may be allowed for persons who have had one or more years of successful teaching experience.)

Physical Training Activities: A minimum of training of sixteen (16) semester-hours distributed approximately as follows:

	Semester Hours
1. Biology	3
2. Human Physiology	4
3. Hygiene and First Aid	2
4. Growth and Development of the Child	2
5. Administration of Physical Education in Elementary and Junior High Schools	1
6. Methods in Play Activities	3
7. Methods in Formal Activities	1
Total	16

To the above must be added general professional and general collegiate courses sufficient to make a total of at least 90 semester-hours.

[2] Must include 6 units in the field of Music and Physical Education, and 6 units in the field of Fine and Industrial Arts.

Credential of Secondary School Grade

PROFESSIONAL REQUIREMENTS

For a long-term Credential: The above general requirements must include at least fifteen (15) semester-hours of courses in the Department of Education, distributed approximately as follows:

	Semester Hours
1. Principles of Secondary Education	3
2. Educational Psychology and Principles of Teaching	3
3. Public Education in California	2
4. Education for Citizenship	2
5. Practice Teaching	5
Total	15

(Credit for practice teaching may be allowed for persons who have had one or more years of successful teaching experience.)

Physical Training Activities: For fully qualified applicants the minimum amount of training required is eighteen (18) semester-hours, distributed approximately as follows:

	Semester Hours
1. Biology	3
2. Human Physiology	4
3. Hygiene and First Aid	2
4. Growth and Development of the Child	2
5. Theory of Teaching and Leadership in Physical Education	1
6. Administration of Physical Education in Secondary Schools	2
7. Methods in Play Activities	3
8. Methods in Formal Activities	1
Total	18

To the above must be added general professional and general collegiate courses sufficient to make a total of at least 120 semester-hours.

ARTS TYPE

Credentials of Elementary and Junior High School Grade

PROFESSIONAL REQUIREMENTS

The general requirements must include at least 12 semester-hours of courses in the Department of Education distributed approximately as follows:

	Semester Hours
1. Principles of Elementary and Junior High School Education	4
2. Public Education in California	2
3. Content and Procedure in Special Field	2
4. Practice Teaching	4
Total	12

(Credit for Practice Teaching may be allowed for one or more years of successful teaching experience.)

GENERAL CLASS

For fully qualified applicants: A minimum of forty semester-hours of special education and training, suited to the needs of teachers of children of elementary and junior high school grades, and distributed approximately as follows:

	Semester Hours
1. General Freehand and Mechanical Drawing, Lettering, Painting and Design	12
2. Dress Design	2
3. Fabric Design	2
4. Furniture Design	3
5. Home Decoration and Furnishing	2
6. House Design	3
7. Home Grounds Design	1
8. Ceramics	2
9. Clay Art Craft	2
10. Metal Art Craft	2
11. Leather Art Craft	2
12. Art Electives	7
Total	40

To the above must be added general professional and general collegiate courses sufficient to make a total of at least 90 semester-hours.

MUSIC TYPE

(Public School Music)

NOTE.—Students may matriculate for this curriculum only upon the fellowship plan outlined on page 19 of this bulletin. Applicants for admission should send complete transcripts of record showing the number of semester-hours of work in Music completed toward the forty hours of special education and training outlined below.

Credential of Elementary and Junior High School Grade

PROFESSIONAL REQUIREMENTS

The general requirements must include at least twelve semester-hours of courses in the Department of Education distributed approximately as follows:

	Semester Hours
1. Principles of Elementary and Junior High School Education	4
2. Public Education in California	2
3. Content and Procedure in Special Field	2
4. Practice Teaching	4
Total	12

(Credit for Practice Teaching may be allowed for one or more years of successful teaching experience.)

GENERAL CLASS

For fully qualified applicants: A minimum of forty semester-hours of special education and training, suited to the needs of teachers of children of the elementary and junior high school grades, and distributed approximately as follows:

	Semester Hours
1. Voice	6
2. Piano	4
3. Instruments and Orchestra	2
4. Choral	4
5. Harmony and Composition	8
6. Sightsinging	4
7. Ear Training and Music Writing	6
8. History and Literature of Music	4
9. Music Appreciation	2
Total	40

To the above must be added general professional and general collegiate courses sufficient to make a total of at least 90 semester-hours.

PREVOCATIONAL TYPE

(Home Making)

PROFESSIONAL REQUIREMENTS

The general requirements must include at least twelve (12) semester-hours of courses in the Department of Education distributed approximately as follows:

	Semester Hours
1. Educational Psychology and Principles of Teaching	3
2. Public Education in California	2
3. Courses Designed Particularly to Prepare for Teaching in the Special Field and Practice Teaching	5
4. Electives in Professional Education	2
Total	12

(Credit for four (4) semester-hours of practice teaching may be allowed for persons who have had one or more years of successful teaching experience.)

SPECIAL REQUIREMENTS

A minimum training of thirty-two (32) semester-hours of collegiate work distributed approximately as follows:

	Semester Hours
1. Home Art and Design	6
2. Home Gardening and Landscaping	3
3. Science, Supplementing Household Occupations	2
4. Care of House and Housekeeping Processes	2
5. Dietetics and Nutrition	2
6. Food Study and Cookery	3
7. Health, Home Nursing and Child Care	6
8. Home Economy and Accounting	2
9. Clothing and Home Sewing	6
Total	32

To the above must be added general professional and general collegiate courses sufficient to make a total of at least 90 semester-hours.

PREVOCATIONAL TYPE

(Occupations and Home Mechanics)

Credential of Elementary and Junior High School Grade

(Offered for the "Limited Class" only)

PROFESSIONAL REQUIREMENTS

The general requirements must include at least twelve semester-hours of courses in the Department of Education distributed approximately as follows:

	Semester Hours
1. Educational Psychology and Principles of Teaching	3
2. Public Education in California	2
3. Courses Designed Particularly to Prepare for Teaching in the Special Field and Practice Teaching	5
4. Electives in Professional Education	2
Total	12

(Credit for four (4) semester-hours of practice teaching may be allowed for persons who have had one or more years of successful teaching experience.)

SPECIAL REQUIREMENTS

For Limited Class: A minimum of training in each of a sufficient number of the special subjects listed below (elementary and junior high school grade) to total twenty (20) or more semester-hours.

In this class, only short-term Credentials may be granted and only in the subjects completed.

For General Class: A minimum of training of forty (40) semester-hours distributed approximately as follows:

	Semester Hours
1. Electrical Work	2
2. Iron Work (forge, sheet metal, pipe fitting, machine work)	7
3. Woodwork	7
4. Upholstering	2
5. Painting, Finishing and Decorating	2
6. Leather Work (shoe repair)	1
7. Clay and Cement Work	2
8. Freehand and Mechanical Drawing	4
9. Art Crafts	3
10. Basketry and Weaving	2
11. Paper and Cardboard Construction	2
12. Study of Occupations	6
Total	40

To the above must be added general professional and general collegiate courses sufficient to make a total of at least 90 semester-hours.

NOTE.—For description of the professional courses, see "Education," under the general heading "Courses of Instruction."

REQUIREMENTS FOR THE JUNIOR COLLEGE CERTIFICATE, 1924–25.

The curricula in Letters and Science, Commerce, Journalism, Law, Medicine, Architecture, Social Service, and Engineering are planned to prepare for junior standing in the University of California and other colleges and universities in California. Some modification of the curricula are necessary to meet the requirements for junior standing in certain colleges and universities outside California.

LETTERS AND SCIENCE (LIBERAL ARTS) CURRICULUM

(With the required entrance credits and a proper selection of electives in the freshman and sophomore years, the curriculum in Letters and Science will prepare for the major work required for an A.B. degree in the following subjects: Anthropology, Astronomy, Bacteriology, Biochemistry, Botany, Chemistry, Economics, Education, English, French, Graphic Art, History, Household Art, Household Science, Mathematics, Physical Education, Physics, Physiology, Political Science, Psychology, Public Speaking, Spanish, Zoology.)

a) General Requirements for All Students.

An examination in Subject A (English composition).
Hygiene, 1 unit (Men), 2 units (Women).
Physical Education, 2 units.
Social Ethics, ½ unit.
How to Study, ½ unit.
Problems of Contemporary Civilization, 4 units.
English Composition, 6 units.

b) Foreign Language.

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.

c) Mathematics.

High school courses in elementary Algebra and Geometry.

d) Natural Science, 12 units, chosen from the following:

High School Physics, 3 units.
High School Chemistry, 3 units.
Astronomy 1, 3 units.
Bacteriology 1, 4 units.
Biology 10A-10B, 6 units.
Botany 2A-2B, 8 units.
Chemistry 1A-1B, 10 units; 6A-6B, 6 units; 8, 3 units; 9, 3 units.
Physics 2A-2B, 6 units; 3A-3B, 2 units; 1A-1B and 4A-4B, 12 units.
Zoology 1A-1B, 10 units.

e) Foreign Language, additional to (b) or Mathematics, additional to (c); 6 units, chosen from the following:

French: Any two consecutive courses of A, B, C, D, 102A, 102B.
Spanish: Any two consecutive courses of A, B, C, D, 102A, 102B.
German: Courses A, B.
Latin: Two years of high school Latin, each year counting as 3 units.
Mathematics: 1A-1B or 3A-3B.

f) History, Economics, Political Science, 6 units, chosen from the following:

History 4A-4B, 8A-8B, Economics 1A-1B, Political Science 1A-1B.

COMMERCE CURRICULUM

a) General Requirements.

An examination in Subject A (English composition).
Hygiene, 1 unit (Men), 2 units (Women).
Physical Education, 2 units.
Social Ethics, ½ unit.
How to Study, ½ unit.
Problems of Contemporary Civilization 1A-1B, 4 units.
English Composition, 6 units.

b) A reading knowledge of French, Spanish, or German, 9 units.

(A high school language may be used to satisfy this requirement in part or in whole, each year-course counting as 3 units.)

c) History 4A-4B, 8A-8B, or Political Science 1A-1B, 6 untis.

d) Geography 1, 3 units, and either Geography 2, 3 units, or Geography 3A, 3 units.

e) Mathematics of Investment 2, 3 units.

(Prerequisite: Mathematics 1A or one year of high school advanced algebra.)

f) Natural Science, 9 units.

(This requirement may be satisfied in part by high school courses in physics and chemistry, each year-course counting as 3 units.)

g) Economics 1A-1B, 6 units.

h) Electives,* 12 units.

CURRICULUM IN 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 practice 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.

* Electives recommended: Psychology 2A-2B, Sociology 50, Public Speaking 1A-1B, Commercial Law 18A-18B, Accounting 14A-14B, additional foreign language.

First Year	Sem. I Units	Sem. II Units
English 1A-1B	3	3
Problems of Contemporary Civilization 1A-1B	2	2
Typewriting 2 A	2	
Periodic Literature 60	--	2
Hygiene	1	
Physical Education	½	½
Social Ethics and How to Study	½	
Electives [2]	7	9
	16	16½

Second Year		
News Gathering and Reporting 51A [1]	3	
News Editing and Correspondence 51B [1]	--	3
At least 12 units chosen from Psychology 2A-2B, History 4A-4B, Economics 1A-1B, Political Science 1A-1B	6	6
Physical Education	½	½
Electives [2]	7	7
	16½	16½

PRELEGAL CURRICULUM

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

b) Electives recommended:

History 4A-4B, 6 units.
History 171A-171B, 6 units.
Economics 1A-1B, 6 units.
Political Science 1A-1B, 6 units.
Public Speaking 1A-1B, 6 units.
Mathematics 1A-1B, 6 units.
Sociology 50, 3 units.
Psychology 2A-2B, 6 units.
Accounting 14A-14B, 8 units.
Business Law 18A-18B, 6 units.

PREMEDICAL CURRICULUM

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

b) Additional requirements:

Chemistry 1A-1B, 10 units.
Chemistry 8-9, 6 units.
Zoology 1A-1B, 10 units.
A reading knowledge of German or French (3 years of high school German or French or 10 units of college German or French).

c) Electives recommended:

Physics 2A-2B, 6 units.
Physics 3A-3B, 2 units.
Chemistry 6A-6B, 6 units.

[1] With the consent of the instructor, News Gathering and News Editing may be taken in the freshman year.

[2] Electives should be chosen so as to conform to the requirements of the Letters and Science curriculum or the Commerce curriculum.
Electives recommended: Shorthand, Accounting 14A-14B, Business Law 18A-18B, Art History and Appreciation 1, Art Structure 6A, Music History and Appreciation 3, Great Books 4, Types of Literature 52A-52B, American Literature 130A-130B, Anthropology 1A-1B, Sociology 50, and Social Psychology 145.

Prearchitectural Curriculum

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

b) Additional requirements:

Mathematics 3A-3B, 6 units.
Mathematics 4A-4B, 6 units.
Physics, 1A-1B, 6 units.
Art A-B, 4 units.
Art 6A, 2 units.
Art 12B, 2 units.
Descriptive Geometry 3D, 3 units.

c) Electives recommended:

Art 1, 3 units.
Art 6B, 2 units.

Social Service Curriculum

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

b) Electives recommended:

Economics 1A-1B, 6 units.
Psychology 2A-2B, 6 units.
Anthropology 1A-1B, 4 units.
Sociology 50, 3 units.
Social Psychology 145, 3 units.
Field Studies 149, 2 units.
Biology 10A-10B, 6 units.

Mechanical, Electrical, Civil and Mining Engineering Curricula

First Year	Sem. I Units	Sem. II Units
Mathematics 3A-3B	3	3
Physics 1A-1B	3	3
Chemistry 1A-1B	5	5
Plane Surveying 1A-1B	3	3
Problems of Contemporary Civilization 1A-1B	2	2
Hygiene 1	1	
Physical Education	½	½
Social Ethics and How to Study	½	
Elective	--	1
	18	17½

Second Year

Mechanical and Electrical Engineering

Mathematics 4A-4B	3	3
Physics 4A-4B	3	3
Descriptive Geometry 3D	3	
Machine Drawing and Design 6A	1	4
Applied Mechanics 1A	3	
Electrical Engineering 1 or Applied Mechanics 1B	--	3
Pattern Shop 8A-8B	2	2
Physical Education	½	½
English Composition	3	3
	18½	18½

Civil Engineering

Mathematics 4A-4B	3	3
Physics 4A-4B	3	3
Descriptive Geometry 3D	--	3
Economics 1A	3	
English Composition	3	3
Physical Education	½	½

Railroad and Irrigation:	Sem. I Units	Sem. II Units
Applied Mechanics 1A	3	
Pattern Shop 8A-8B	2	2
Electives	1	4
	18½	18½
Sanitary and Municipal:		
Chemistry 8–9	3	3
Chemistry 6A-6B	3	3
	18½	18½

Curriculum in Industrial and Engineering Chemistry

First Year

Mathematics 3A-3B	3	3
Physics 1A-1B	3	3
Chemistry 1A-1B	5	5
English Composition	3	3
Problems of Contemporary Civilization 1A-1B	2	2
Hygiene 1	--	1
Physical Education	½	½
Social Ethics and How to Study	½	
	17	17½

Second Year

Mathematics 4A-4B	3	3
Physics 4A-4B	3	3
Chemistry 6A-6B	3	3
Chemistry 8–9	3	3
German A-B	5	5
Physical Education	½	½
	17½	17½

Curriculum in Agriculture

One Year

Chemistry 1A-1B	5	5
Zoology 1A (or Biology 10A-10B, 6 units)	5	
Botany 2A-2B	4	4
Hygiene 1	1	
Physical Education	½	½
Social Ethics and How to Study	½	
Problems of Contemporary Civilization 1A-1B	2	2
Electives *	--	7
	18	18½

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 sixty-four 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 keener to

* Electives should be chosen so as to meet the following requirements, including matriculation credit, before the end of the freshman year. (Each high school year-course counts as 3 units.) English, 12 units; mathematics, including trigonometry, 12 units; physics, 3 units; history or economics, 9 units; mechanical drawing, 3 units.

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

One-Year Course	Sem. I Units	Sem. II Units
Accounting 14A-14B	4	4
Commercial Law 18A-18B	3	3
Penmanship	1	1
English Composition	3	3
Business Mathematics A	1	
Typewriting 1A-1B	4	4
Social Ethics and How to Study	½	
Elective	--	1
	16½	16

Two-Year Course (leading to Junior College Certificate in Accountancy)

First Year

Accounting 14A-14B	4	4
Penmanship	1	1
Typewriting 1A-1B	4	4
Economic Geography 3A	--	3
Business Mathematics A	1	
Problems of Contemporary Civilization 1A-1B	2	2
Hygiene	1	
Physical Education	½	½
Social Ethics and How to Study	½	
Elective	2	2
	16	16½

Second Year

Advanced Accounting 160A-160B	3	3
Commercial Law 18A-18B	3	3
Economics 1A-1B	3	3
English Composition	3	3
Office Practice 3A	--	3
Physical Education	½	½
Electives	4	1
	16½	16½

SECRETARIAL TRAINING

One-Year Course		
Accounting 14A	4	
Shorthand 1A-1B	5	5
Typewriting 1A-1B	4	4
English Composition	3	3
Business Mathematics A	1	
Office Practice 3A	--	3
Social Ethics and How to Study	½	
Electives	--	2
	17½	17

Two-Year Course (leading to Junior College Secretarial Certificate)

First Year

Shorthand 1A-1B	5	5
Typewriting 1A-1B	4	4
Business Mathematics A	1	
Hygiene	--	2
Physical Education	½	½
Social Ethics and How to Study	½	
Problems of Contemporary Civilization 1A-1B	2	2
Electives *	3	3
	16	16½

*Students who plan to enter the consular servic should elect Political Science 1A-1B, 6 units, and a foreign language.

Second Year	Sem. I Units	Sem. II Units
Commercial Law 18A-18B	3	3
Office Practice 3A	--	3
Economics 1A-1B	3	3
Accounting 14A-14B	4	4
English Composition	3	3
Physical Education	½	½
Electives *	3	
	16½	16½

ACCOUNTANCY AND SECRETARIAL TRAINING

Two-Year Combined Course

First Year

Accounting 14A-14B	4	4
Shorthand 1A-1B	5	5
Typewriting 1A-1B	4	4
Business Mathematics A	1	
Problems of Contemporary Civilization 1A-1B	2	2
Hygiene	--	2
Physical Education	½	½
Social Ethics and How to Study	½	
	17	17½

Second Year

Advanced Accounting 160A-160B	3	3
Penmanship	1	1
Commercial Law 18A-18B	3	3
Office Practice 3A	--	3
Economics 1A-1B	3	3
English Composition	3	3
Physical Education	½	½
Electives	3	
	16½	16½

* Students who plan to enter the consular service should elect Political Science 1A-1B, 6 units, and a foreign language.

COURSES OF INSTRUCTION, 1924–25

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. Credit for 64 units, or more, according to the course chosen, is required for a certificate.

Courses numbered from 1 to 99 are freshman or sophomore (lower division) courses; those numbered from 100 to 199 are junior or senior (upper division) courses, available only, except by special arrangement, to students in the professional courses. Courses similar to those of the University of California are designated by the numbers used by the University.

ANTHROPOLOGY

Preparation for the major in Anthropology, Anthropology 1A-1B.

1A. General Anthropology: Origin and Antiquity of Man — HEWETT

Man as an animal; heredity; races and race problems; earliest culture.
Two units; one semester.

1B. General Anthropology: Origin and Development of Civilization — HEWETT

The source and growth of institutions, art, customs, industries, language, and religion. Prerequisite: Anthropology 1A.
Two units; one semester.

103. Outlines of Culture Growth — HEWETT

Human origins and classification; beginnings of culture; growth of civilization in the great centers of Egypt, Europe, and Asia; diffusions in Africa and Oceania; belated and marginal peoples; world religions and international contracts.
Three units; one semester.

104. Culture History of the Southwest — HEWETT

Origin and culture of the Indians of the Southwest; their arts, customs, industries, beliefs.
Three units; one semester.

ARTS AND CRAFTS

(Not offered in 1924–25)

177. Art Metal Work

The processes of etching, bending, soft and hard soldering, riveting, sawpiercing, enameling and raised work are covered, and design stressed. Prerequisite: Art 6.
Four units; one semester.

178. Pottery

Building pottery forms by hand and potter's wheel, glazing, casting in cement. Prerequisite: Art A or its equivalent.
Two units; one semester.

179. Modeling

Modeling in clay from casts, illustration and life, in the round, in low relief and in intaglio.
Two units; one semester.

180. Leather Work

Two units; one semester.

181. Bookbinding

Two units; one semester.

182. Weaving

Two units; one semester.

ASTRONOMY

Preparation for a major in Astronomy, Astronomy 1, Plane Trigonometry, Mathematics 3A-3B, 4A-4B, Physics 2A-2B and 3A-3B or 1A-1B and 4A-4B, a reading knowledge of French or German.

1. Descriptive Astronomy — SKILLING

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. Especial attention is given to the methods and instruments by means of which astronomical knowledge has been gained. An observatory equipped with a six-inch Alvan Clark 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; second semester.

BACTERIOLOGY

Preparation for the major in Bacteriology, required: Bacteriology 1, Chemistry 1A, Physics 2A-2B, Zoology 1A, French or German. Recommended: Chemistry 1B and 8–9, Botany 2A-2B.

1. General Bacteriology and Microbiology

A study of the bacteria, their form, life history and occurrence; microscopic examination and identification; sterilization; preparation of media for bacterial cultures; microbiology of air, water, soil, foods (including milk), and some of the human, plant and animal diseases.

The aim of the course is to give an introduction to bacteriological facts and methods, a knowledge of which is essential to students in Medicine, Agriculture, and Biological Sciences and Nursing. A student who is preparing to assist in the office of a doctor or dentist would find this course most valuable. Two lectures or recitations and two laboratory periods per week. Prerequisite: Chemistry 1A.
Four units; second semester. (Not given in 1924–25.)

BOTANY

Preparation for the major in Botany, Botany 2A-2B, High School Chemistry, or its equivalent.

2A-2B. General Botany — COY

The fundamentals of form, structure, and physiology of plants, with a general study of principles of plant relationship and plant classification. This is a more specialized course than the biology and deals only with the plants and their relationships. Besides acquainting the student, through experiment, with the fundamental life processes of plants, it will enable him to determine the names and relationships of plants in which he may be interested. Two lectures or recitations and two laboratory periods per week.
Four units; throughout the year.

CHEMISTRY

Preparation for a major in Chemistry, required: Chemistry 1A-1B, with a grade of C or better, Physics 2A-2B or 1A-1B, Mathematics C and 3A-3B, or their equivalents, and a reading knowledge of German. Recommended: Chemistry 6A-6B or 8–9, Physics 3A-3B or 4A-4B, Mathematics 4A-4B.

1A-1B. General Chemistry — PIERCE, SKILLING

The course is designed to give the student a thorough understanding of the fundamental principles and theories of Chemistry and their applications in everyday life, as well as to meet the requirements for further work along chemical lines. Three hours lecture and recitation and two laboratory periods per week. Prerequisite: High School Chemistry or High School Physics and Trigonometry.
Five units; throughout the year.

6A-6B. Introductory Quantitative Analysis PIERCE

The work consists of determinations by gravimetric, volumetric and electro analysis, particular attention being given to the cultivation of laboratory technique. One hour of recitation and lecture and two laboratory periods per week. Prerequisite: Chemistry 1A-1B.

Three units; throughout the year.

8-9. Organic Chemistry PIERCE

A study of the carbon compounds and their derivatives, including the synthesis of different compounds and the proof of their constitution. A general application of the subject and the principles involved. Two lectures or recitations and one laboratory period, first semester; one lecture or recitation and two laboratory periods, second semester. Prerequisite: Chemistry 1A-1B.

Three units; throughout the year.

CONTEMPORARY CIVILIZATION

1A-1B. Problems of Contemporary Civilization A. G. PETERSON AND STAFF

A study of the insistent problems of the present with particular reference to outstanding problems of citizenship; an orientation course planned to furnish a basis for further study and to develop a scientific attitude in the analysis and solution of problems in the field of human engineering. Lectures, discussions, quizzes, and collateral reading. Required of all freshmen.

Two units; throughout the year.

ECONOMICS

Preparation for a major in Economics, Economics 1A-1B and at least one of the following: Political Science 1A-1B, History 4A-4B, 8A-8B, Psychology 2A-2B. Recommended: Sociology 50, Accounting 14A-14B.

A. Social Ethics COLDWELL

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—of men to society. One hour per week for 9 weeks.

1A-1B. Principles of Economics A. G. PETERSON

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 citizen 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; throughout the year.

3A. Introduction to Economic Geography

(See Geography.)

50. General Sociology A. G. PETERSON

The object of the course in Sociology is twofold: To familiarize the student with the forces and laws under which society is formed, and to bring him so far as possible into touch with specific contemporary problems, so that he may adapt himself with greater facility to his responsibilities as a member of the social group and as a citizen. General Sociology includes the study of the antiquity of man, racial evolution, religion, morals, customs, laws, family and state, and the biological, economic and psychological aspects of society. Lectures, discussions, quizzes, with a text and collateral reading. Not open to freshmen. Prerequisites: Recommended: Economics 1A-1B, Biology 10A-10B and Psychology 2A-2B.

Three units; one semester.

145. Social Psychology

(See Psychology.)

149. Field Studies A. G. PETERSON

Scientific methods of social and industrial field work and investigation; methods of securing data; classification, tabulation and interpretation of field work data. Each member of the class is required to assist in a survey of a definite field of work in co-operation with social and industrial organizations of San Diego and under the direction of the instructor in charge of the course. May be taken concurrently with Sociology 50. Prerequisites: Required: Sociology 50. Recommended: Psychology 2A and Economics 1A-1B.

One or two units; one semester.

18A-18B. Commercial Law STANTON

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; throughout the year.

1A-1B. Typewriting GILLESPIE

A rapid development of a thorough command of the 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 curricula in Accountancy and Secretarial Training. Ten hours lecture and laboratory practice.

Four units; throughout the year.

2A-2B. Typewriting GILLESPIE

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; throughout the year.

1A-1B. Stenography WRIGHT

An intensive course designed for the practical preparation of office secretaries. A thorough study is made of the Gregg System and the ability to read and write shorthand rapidly and correctly, both literary and commercial, is developed. 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 Accountancy and Secretarial Training.

Five units; throughout the year.

3A. Office Methods and Appliances WRIGHT

Practice and principles of office management, including organization, arrangement and operation. Study and use of modern office appliances, such as the multigraph, mimeograph, filing devices, calculating and bookkeeping machines. Trips are made to local establishments to study at first hand actual business conditions. Prerequisite: Typewriting 1A or its equivalent.

Three units; second semester.

A. Business Mathematics WRIGHT

A practical course in the Mathematics of Business. The ability to add, subtract and divide rapidly and accurately is developed. A thorough study is also made of interest, compound interest, discount, amortization tables, insurance rates, etc. Credit is given only in the curricula in Accountancy and Secretarial Training.

One unit; first semester.

14A-14B. Accounting EVERTS, WRIGHT

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.

Four units; throughout the year.

160A-160B. Advanced Accounting EVERTS, WRIGHT

The second year consists of an intensive study of the corporation, its accounting and financial problems; a thorough study of the balance sheet; depreciation; factory acounting, 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; throughout the year.

EDUCATION

Applied Psychology 2B (Ed. I) JOHNSON, BELL

An elementary course to introduce freshman students to the study of education by scientific methods. Textbook: Judd, *Introduction to the Scientific Study of Education.* Collateral readings and class observations with reports will be required. This course is required of all students who can not present credit for an equivalent. It includes, for all beginning students, lectures and readings in the technique of study and in social ethics.

Three units; one semester.

Education II—Methods in the Elementary School Curriculum JOHNSON, MINOR

A brief study of the methods which are important in teaching the fundamental elementary school subjects. Collateral readings, class observations and demonstration lessons, with reports, will be required of all students. Prerequisite: Education I.

A) Primary. Three units; one semester.

B) Elementary. Two units; one semester.

Education III—School Law and Administration NIDA, HARDY

School administration as it affects the teacher, the school, child and the community; the system of public education in California; the evolution of public education in the United States. An upper division course, open only to students of junior certificate standing.

Two units; one semester.

Education IV—Psychology of Learning JOHNSON, BELL

This course is based upon a study of fundamentals in the experience of learning, and deals specifically with problems of learning in the fields of the social and natural sciences as they are applied in the elementary school.

Three units; one semester.

Education V—Principles of Teaching MINOR

A course in the principles of proper teaching procedure, including a study of problems of both classroom and individual instruction, of lesson plans, of types of teaching and of classroom management. Lectures and readings, with observation and reports.

Two units; one semester.

Education VI—Rural School Problems COLDWELL, MINOR

The distinct purposes of this course are:

1. To lead students to realize the actual conditions of rural life through their own observation and through the study of the literature dealing with the subject.
2. To discover what is being done to ameliorate rural conditions.
3. To ascertain the part the school should take in this work.
4. To formulate some definite ideas and plans as to the service a teacher may render her community, and to equip her with specific methods for rural school teaching.

Two units; one semester.

Education VII—Educational Measurements I—Intelligence Testing: Theory and Practice BELL

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. 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 subject, to enable each student to find out if by inclination and endowment he is fitted to do scientific testing and to put him in the way of becoming skilled in giving and interpreting intelligence tests.

Two units; one semester.

Education VIII—Educational Measurements II BELL

This course consists in a brief survey of the history of scientific measurement in the elementary field, a study of the nature of intelligence tests, and especially of the practical uses of group intelligence tests. The greatest stress, however, is laid upon the practical uses of achievement tests. The Stanford Achievement tests given to the entire training school and to many college students furnish a great part of the data used. Simple statistical training in handling data is acquired through practical problems.

Three units; one semester.

Education IX—Principles of Elementary Education MINOR, JOHNSON, NIDA

The courses deal with the objectives of the school as controlled by personal and social needs and development, and with the particular school activities and experiences which may result in the attainment of these objectives. Both ideas and practice are evaluated, with class discussions and analyses of such problems as formal discipline or interest, liberal or vocational education, training for social (group) efficiency or development of individuality, etc.

The course deals, also, with the California texts, and the state curriculum standards and programs in the several statutory studies, and in the major objectives of a national program of education.

Two units; one semester.

Education X—History of Education BEESON, BELL

The 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 school system and of American ideals and practices in education.

Three units; one semester.

Education XI—Education for Citizenship HARDY, NIDA

The course deals with the effective methods and materials for Americanization of the foreign elements in our school population, with a study of American ideals as revealed in our history, literature and educational theory, and the objectives of American civilization.

Two units; one semester.

Education XII—Principles of Secondary Education (with reference to the junior high school) HARDY

This course deals with the principles of educational science that should underlie the organization, administration and curriculum of the secondary school, especially in the junior high school field. The prevailing patterns of high school education are 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 articulation of the secondary school with the lower and higher schools.

Two units; one semester.

Education XIII—Educational Measurements III (Advanced) BELL

The course is planned for students or teachers who have taken Education VII or VIII, or their equivalents, and who wish a more extended knowledge of the theories underlying the measurement of intelligence, specific abilities, aptitudes, elements of character, etc. Work in statistical procedure forms a part of this course. Extensive

study of current periodicals specializing in this field is added to the intensive study of a text.

Three units; one semester.

NOTE.—For the required state course in the Constitution of the United States, see History.

THE STATUTORY CURRICULUM

(Elementary School)

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

Language

This course includes a study of the psychology and hygiene of reading, with a study of methods and materials suitable for the equipment of the elementary school teacher, and with a study, also, of the teaching of writing and spelling.

Two units; one semester.

Mathematics

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 and one-half units; one semester.

Introduction to Geography

This course includes a study of the fundamental principles of geography and their adaptation to teaching geography in the elementary schools. Required of all students working for a teacher's elementary school certificate.

Two and one-half units; one semester.

History

A course in the development of civilization beginning with ancient times, stressing the characteristics of successive periods and building a cultural background for the history of the elementary school.

Two units; one semester.

Natural Science

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).

Two units; one semester.

Music I

A course in the rudiments of music and in elementary theory; study of major and minor scales (three forms), intervals, correct notation, music terminology and sight singing in one, two and three parts. This course is prerequisite to Music II. Advanced students are excused from this course by special examination.

One-half unit; one semester.

Music II—Elementary School Music

Main objectives of music teaching in the public elementary schools. Study of the child voice. Organization of song material by grades. Procedure in presenting rote songs, ear training, elementary notation, sight singing, and part singing. Conducting. Prerequisite: Music I or its equivalent.

Two units; one semester.

Art I

Study of fine examples of painting, architecture, sculpture and handicraft. Problems are intended to give a practical working knowledge of design and color theory

One-half unit; one semester.

Art Methods I

Prerequisite: Art I or its equivalent. This course is a practical application of the elements and principles of art to problems for grades 1–6. It is presented through lectures, reports, demonstration lessons and laboratory work.

Two units; one semester.

COURSES FOR SECONDARY SCHOOL TEACHERS IN THE JUNIOR HIGH SCHOOL FIELD

Organization and Administration (see Education XII)

English OUTCALT, BAGLEY

This course consists of the following items: (a) Lectures, and required papers, on the objectives of secondary school work in English and on the 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.

Social Science PETERSON

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 a "general" social science suited to the experience and development of the junior high school pupil, through the medium of such social studies in the junior high school curriculum as history, geography and civics. Methods of securing direct experience and training through suitable school and other survey and study projects, and of developing a genuine and continuing interest in social and civic problems through observation and reading, will be discussed and illustrated.

Two units; one semester.

History LÆONARD

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 text books, maps, pictures and other material.

Two units; one semester.

Geography CLARK

This course deals, first, with the subject matter suitable for secondary schools, particularly the junior high school, and with the arrangement and interpretation of this subject matter; second, with the problems of teaching geography in the junior high school grades. Lectures, papers, readings and observations are included.

Two units; one semester.

Romance Languages BROWN

A consideration of the main questions of pronunciation, grammar, composition, reading, texts, etc., as applied to teaching elementary classes in French and Spanish; the different methods, their history and value.

Two units; one semester.

Biological Science JOHNSON

The content of courses in elementary biology and the materials needed for illustration and study are considered in this course. Lectures, readings, student reports, class discussion, and observation will all contribute to an understanding of the problems involved.

Two units; one semester.

Physical Science BAIRD

This course deals with the major considerations in the teaching of the physical sciences in the secondary schools, and with the principal factors and materials in a good method of teaching general science in a junior high school both as preparatory for general education and for the advanced and specialized courses of the senior high school.

Two units; one semester.

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 social and business life, intuitive geometry, graphic representation and the phases of algebra suitable to the junior high school pupil, together with the problem of making the work useful in preparation for senior high school mathematics.

Two units; one semester.

PROFESSIONAL ELECTIVES

Music III—History and Appreciation of Music L. D. SMITH

Development of primitive systems; mediaeval music; the school of counterpoint; history of oratorio and opera; the rise of classic forms. A study of the works of the composers of the classic and romantic periods. Illustrations, lectures and reports.

Three units; one semester.

Art Methods II BENTON

Prerequisite: Art I and Art Methods II. This course is for the third year students working for elementary special certification. It includes problems for grades 7, 8 and 9 and curriculum planning, and is presented in the same manner as Art Methods I.

Two units; one semester.

Geography Material for the Elementary School CLARK

This course aims to familiarize the students with the various geographical readers, with the magazines valuable in the work, with the different kinds of wall and desk maps, and also with concrete geographical exhibits—all with reference to the elementary school, grades 3 to 6.

Two units; second semester.

PHYSICAL EDUCATION FOR TEACHERS

Special Methods in Play Activities TANNER

A study of play activities, including those centering about playground apparatus, hunting games, team games, singing games and folk dances. Methods of conducting large classes in mass and squad groupings are given particular attention. Carefully compiled note books are required that the student may possess graded and tested play materials.

One unit; one semester (abridged course for general certification).

Three units; one semester (course for special certification).

Administration of Physical Education Program in Elementary and Junior High Schools TANNER, PETERSON

Materials and methods noted in the state program of physical education are studied. Emphasis is placed upon athletic tests, group activities under student leadership, the administration of the "relief" and play periods and the means of securing better postures. Standards and practices in health measurements as applicable to elementary school children, and the treatment of school emergencies are included. Lectures, demonstrations and individual study of important problems. Text: "State Manual of Physical Education"—Hetherington.

Two units; one semester.

Administration of Physical Education in Secondary Schools TANNER, PETERSON

A course similar to the above, with interests and methods for the senior high school.

Two units; one semester.

School Hygiene (Child Growth and Development) TANNER

A course for professional students designed to acquaint them with the principles governing the growth and development of children and including:

The phenomena of reproduction, sex and the influencing factors of environment; prenatal and postnatal development; glands and internal secretion, their influences

and reactions; growth periods; diseases, physical defects and health indices of school children; teaching of hygiene in the elementary school. Lectures, demonstrations, reports and discussions.

Texts:

"The Hygiene of the School Child"—Terman
"Health Work in the Schools"—Hoag and Terman
"Home and Community Hygiene"—Broadhurst

Two units; one semester.

Special Methods in Formal Activities TANNER

(For Elementary and Junior High Schools)

a) A systematic study of the principles and technique of teaching physical training activities.

b) A study of the selection, classification, arrangement and progression of formal activities. The responsibility of the Physical Instructor toward the problems of age, growth, and sex variations as affected by exercise is stressed.

One unit; one semester.

For descriptions of the courses in biology, physiology, hygiene, etc., required for special certification in physical education, see those subjects in the list of general collegiate courses.

Theory of Teaching and Leadership in Physical Education TANNER

A consideration of the elements and the teaching process in physical education; the application of psychology to leadership; the physical, mental and social equipment of the successful physical instructor.

One unit; one semester.

Organization of Physical Education Program in Secondary Schools PETERSON, TANNER

A study of interclass and intramural activities, with marked attention to methods of competition; consideration of games and sports (not specialized athletics) suited to the interest and physical needs of high school pupils; the relation of the instructor of physical education to the moral, social and hygienic problems of the high school.

Two units; one semester.

Practice Teaching TANNER

Skill in teaching games, athletic sports, in the use of Decathlon Events and Tests and in gymnastic drills is expected. Training School and College classes are used in practice teaching. Prerequisites: Theory of Teaching and Leadership, a course in the Organization of Physical Education Program for the school group to be taught, and a course in Games.

Five units.

INDUSTRIAL ARTS

Elementary Woodwork I SCUDDER

This course will show the possibilities of woodwork in the elementary grades. The reading of blueprints, the development of simple wood finishes, and study of the important woods form an essential part of the course. Shop work, demonstrations and lectures.

a) Study of woods and their working qualities, paints and enamels, mixture and application, making various silhouette and mechanical toys.

b) Tool operations and the application of constructional principles suitable for sixth and seventh grade work. An analysis of tools and principles involved. Care and adjustment of tools, etc.

All projects adapted to grade work and classified by grades.

Three units; one semester.

Advanced Woodwork II — SCUDDER

Tool operations and the application of constructional principles suitable for eighth grade work. An analysis of tools and principles involved. Proper care and adjustment of tools. Attention is given to the various methods of assembling, and several different finishes are developed. Projects are to a large extent typical of the eighth grade and include original designs. Shop work, demonstrations and lectures.
Three units; one semester.

Industrial Arts III — SCUDDER

Elementary cabinet work. Tool and machine operations involving mortise and tenon joints. At least one simple problem in upholstering. Proper use of various clamps in assembling. Excursions to study various types of furniture.
Three units; one semester.

Industrial Arts IV—Cabinet Work — SCUDDER

Tool, machine operation and finishing processes naturally included in cabinet work are taught. Advanced finishing operations are demonstrated. Upholstering or caning must be included in this project. Study of fine cabinet woods and selection of the same.
Three units; one semester.

Industrial Arts XI—Concrete Work — SCUDDER

This course includes the study of materials and their values in the different mixtures. The proper mixture of concrete for different purposes and simple reinforcement, as used in posts, beams, tanks, walls, etc. Each student will make practical application of the above in the laboratory by making small test beams and breaking on small machine of compound levers, and by making a series of small useful and practical projects, as well as some larger class projects.
Two units; one semester.

Industrial Arts XXI—Elementary Pattern Work and Molding — SCUDDER

The principles of pattern construction, and the uses of the shrink rule, the finish allowance, draft allowance, fillets, etc., are practically taught by the making of one-piece and split patterns with core prints and core boxes. The correctness of design and necessity for the various allowances are proved by actual molds and castings (in soft metal) made from these patterns. The making of molds from different kinds of patterns, the art of ramming, venting, parting, gate cutting, core making, and other molding processes, are taught through actual individual work.
Four units; two semesters.

Industrial Arts Organization — SCUDDER

Classification of industrial arts from which men make a livelihood. General organization of material and its value, as well as methods of presentation. Classification of tools, tool operations and projects. Planning of courses from fifth grade through high school. Equipment costs and installation.
Two units; one semester.

Elementary Industrial Arts I — BENTON

This course deals with forms of industrial art, practical in the first four grades. The projects involve weaving and dyeing in textiles and basketry, paper and cardboard construction, simple binding and work in clay, all studied in relation to other subjects and to human needs.
Two units; one semester.

Elementary Industrial Arts II — BENTON

A course similar to the above, but with the projects suitable to grades 5 to 9.
Two units; one semester.

NOTE.—For descriptions of the additional courses in special subject matter fields, required for special certification of the various types outlined under "Curricula for Special Certification," see the lists of courses under the head "Courses of Instruction."

ENGINEERING

C. Mechanical Drawing — SCUDDER

This course is designed to train students in lettering and in neatness and accuracy in the use of instruments. Geometric problems, shop problems, theoretical objects with developments, warped surfaces with developments and penetration of two prisms, pyramid and prism, cylinder and prism, cone and cylinder, and other similar problems are studied. Mechanical Drawing C is substantially equivalent to the high school course in Mechanical Drawing.
Three units; either semester.

3D. Descriptive Geometry — SCUDDER

In this course 21 or more plates are required and four examinations given. The plates deal with the customary problems of points, lines, planes, perpendiculars, parallels, distances, angles, 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.

6A. Machine Drawing and Design

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

1A-1B. Plane Surveying — LIVINGSTON

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; throughout the year.

8A-8B. Pattern Making — SCUDDER

The aim of this course is to acquaint the student with as wide a variety of patterns as possible, in order to develop his knowledge of construction and broaden his view of the industries. Instruction is given in the principles of pattern construction, and the uses of the shrink rule, the finish allowance, draft allowance, fillet, etc. The correctness of design and necessity for the various allowances are proved by actual moulds and castings made from one-piece and split patterns. Excursions to pattern shops and foundries. Laboratory plan.
Two units; throughout the year.

1A-1B. Applied Mechanics

Problems concerning the action of external forces on rigid bodies; composition and resolution of forces; equilibrium; rectilinear and curvilinear motion; acceleration, linear and angular; harmonic motion; translation and rotation; moment of inertia; kinetic and potential energy; work; power; friction; machines; efficiency. Prerequisites: Mathematics 3A-3B and Physics 1A-1B.
Three units; throughout the year.

1. Elements of Electrical Engineering

A general survey of the field of Electrical Engineering. Single and polyphase circuits, power-factor, reactance, generators, motors, transformers, and transmission of power. Prerequisites: Mathematics 3A-3B and Physics 4A.
Three units; second semester.

ENGLISH

Preparation for a major in English—six units from English 1A-1B, and six units from 4, 50A-50B, 52A-52B, 60. Recommended: A reading knowledge of German or French.

1A-1B. English Composition — BAGLEY, 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; throughout the year.

2A-2B. English Composition — BAGLEY

This course is designed to give constructive practice in correct and clear expression, both oral and written. Special emphasis is placed on the study of the sentence and the paragraph.

Three units; throughout the year.

4. Great Books — OUTCALT

A survey of books and bodies of literature that are primary sources or expressions of European and American culture. These include the Hebrew Bible, Greek Epic, Norse Edda, etc., and highly significant masterpieces in poetry and prose fiction. Lectures and required reading.

Two units; first semester.

50A-50B. The Drama — OUTCALT

In this course typical works from the world's great dramatists are studied. The primary aim is a knowledge of the subject-matter of the plays, with an attempt to lay bare the fundamentals of Dramatic Art. Characters are studied and motives analyzed: the big significance of life as portrayed in the various plays is dwelt upon. The course includes the great Greek and Roman dramatists, selections from the French and Spanish, German and Scandinavian, and others, as well as chief contemporary American and English dramatists.

Two units; throughout the year.

52A-52B. Types of Literature — OUTCALT

Introduction to 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.

60. Periodical Literature — OUTCALT

A study of current literature, in content and form, as presented by leading periodicals, with the purpose of promoting intelligence and discrimination in reading for immediate interest.

Two units; second semester.

101. Modern Prose Fiction — OUTCALT

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; one semester. (Not offered in 1924–25.)

121. Nineteenth Century Poetry — OUTCALT

A study of Tennyson and Browning and their contemporaries and successors, relating English poetry to nineteenth century life and thought.

Three units; second semester.

130A-130B. American Literature — OUTCALT

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.

FINE ARTS

Preparation for the Major in Fine Arts—Art A, 1, 6A-6B, 12.

A-B. Freehand Drawing — BENTON, MARKER

Freehand drawing from objects and figure. Perspective, memory drawing and outdoor sketching. Mediums are charcoal, pencil, pen and ink and water color.

Two units; throughout the year.

1. Art History and Appreciation — MARKER

A study of architecture, sculpture, painting and handicraft from the dawn of art to modern art, through illustrated lectures, research and discussion. Prerequisite: Art 6A.

Three units; second semester.

6A-6B. Art Structure — BENTON, MARKER

Theory of design and color. Study of fine examples of painting, architecture, sculpture and handicrafts. The problems are intended to give a practical working knowledge of design and color.

Two units; throughout the year.

12A-12B. Advanced Design and Color — MARKER

12A—Problems in creative design presented in relation to materials and processes of application, such as wood block printing, batik, etc.

12B—Includes the application of design to posters, lettering and illuminating.

Prerequisite: Art 6A-6B.

Two units; throughout the year.

102. Stage Craft — BENTON, MARKER

Theory of line, color and lighting studied in relation to stage effects. Study of the New Theater movement and its personalities. Miniature stages permit individual problems in settings, lighting and costume. The actual making of costumes and settings for a play produced by the Dramatic Society is the final problem. Prerequisite: Art 6A-6B.

Four units; second semester.

115A-115B. Life Drawing and Painting — BENTON, MARKER

115A—Pose drawing from the figure.

115B—Illustration.

Prerequisite: Art A-B.

Two units; throughout the year. (Not offered in 1924–25.)

194A-194B. Costume Design — MARKER

194A—Design studied in relation to textiles and to modern dress for general and individual types. This course includes some drawing from costume models, sketching from costumes in the shops and original problems in costume design. Prerequisite: Art 6A-6B.

Three units; first semester.

194B—A study of the history of costume. Advanced problems in design are executed in materials. Some stitchery is included and processes of dyeing and dye resists. Prerequisite: 194A.

Two units; second semester. (Not offered in 1924–25.)

195A-195B. Home Decoration BENTON

195A—Design in relation to the home. Planning, decorating and furnishing with emphasis on spacing, color and lighting. Study of furniture, floor coverings and textiles. Original problems in house planning and color elevations of rooms. Prerequisite: Art 6A-6B.

Three units; first semester.

195B—Takes up more intensive study of period styles and historic ornament. Original problems in designing furniture and fireplaces, and in selecting and combining textures. Prerequisite: 195A.

Two units; second semester. (Not offered in 1924–25.)

FOREIGN LANGUAGE

Preparation for a major in a Foreign Language. Required: 16 units of credit in the language chosen for the major. Recommended: English 1A-1B and History 4A-4B.

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.

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; collateral reading with résumés and written reports in French; study of French Prosody, 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.

102A-102B. Introduction to French Classics BROWN

Prerequisite: French D, or its equivelent.

Three units; throughout the year. (Not offered in 1924–25.)

Elementary Spanish

Intensive study of Spanish Grammar and Syntax, with daily written work; class drill in conversational idiom and pronunciation; reading with oral discussion and résumés; dictation; introduction to contemporary prose writers; study of the principles of Spanish Prosody, with memory work.

A. Elementary Spanish BROWN

Five units; first semester.

B. Elementary Spanish BROWN

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 basis for class work; collateral reading in prose and drama, with written reports in Spanish; a study of Spanish Prosody, with selections for memorizing; dictation. Class work conducted mainly in Spanish. Individual conferences.

C. Intermediate Spanish BROWN

Prerequisite: Spanish B or three years of the high school course in Spanish, or its equivalent.

Three units; first semester.

D. Intermediate Spanish BROWN

Prerequisite: Spanish C or four years of the high school course in Spanish, or its equivalent.

Three units; second semester.

105A-105B. Spanish Drama BROWN

This course will trace the development of the drama in Spain from the beginning of the nineteenth century to the present time.

Three units; throughout the year.

GEOGRAPHY

Preparation for the major in Geography, Geography 1 and 2.

1. Introduction to Geography: Elements CLARK

This course deals with the fundamental principles of geography, with the distribution of life upon the earth and with the effects of environment upon the activities of man. Climate, land forms, bodies of water, natural resources and location are related to human activities. Open to all students. Given in alternate years beginning 1924–25.

Three units; first semester.

2. Introduction to Geography: Natural Regions and the Distribution of Population and of Cultures CLARK

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 Geography 1A. Given in alternate years beginning 1924–25.

Three units; second semester.

3A. Introduction to Economic Geography CLARK

This course includes a study of the economic activities of nations and peoples as influenced by geographical factors, with a study of present-day problems in the field of the subject. Required for special certification for teaching the commercial subjects in the junior high schools. Given in alternate years beginning 1924–1925.

Three units; second semester.

CLARK

116C. Europe

This course deals with the physical environment of each of the nations and their reactions to physical environment in their political and social relations. It is planned so as to be of value to all students who wish to familiarize themselves sufficiently with modern Europe to be able to read current periodical literature with interest and understanding. The course introduces the students to the smaller as well as to the larger of the European countries.

Three units; first semester.

CLARK

117C. Europe—Advanced

This course follows Geography 116C or its equivalent and stresses the economic problems of the European countries. Special stress is laid on those countries which occupy, at present, the more important places in the world's affairs.

Three units; second semester.

CLARK

116D. South America

This course deals with the climate, topography and natural resources of the South American countries, and with the effect of those physical factors upon the economic, commercial and racial problems of the different nations.

Three units. (Not offered in 1924–25.)

1B. Elementary Meteorology

A study of the earth's atmosphere and the changes in it which produce our weather and influence human affairs.

Three units. (Not offered in 1924–25.)

2B. Map and Instrument Study of Weather and Climate

The making and recording of meteorological observations; practical work with meteorological instruments and a study of weather and weather maps.

Two units. (Not offered in 1924–25.)

HISTORY

Preparation for the major in History, History 4A-4B or History 8A-8B, and either Political Science 1A-1B or Economics 1A-1B.

LEONARD

4A-4B. Modern European History

A course intended as an introduction to the study of the political, social, economic and intellectual life of Modern Europe. During the first semester the period from 1500 to 1815 is considered. A syllabus is provided. Lectures, oral and written reports, and frequent quizzes make up the bulk of the work.

Three units; throughout the year.

LEONARD

8A-8B. History of the Americas

A study of American history from the continental point of view. Emphasis is placed on the planting of European civilization in the Americas, the growth of colonies, the struggles of European nations for control of the continents, the Wars of Independence, and the development of independent American republics and their relations with each other and with the rest of the world. Lectures, discussions, assigned readings, frequent oral and written quizzes.

Three units; throughout the year.

LEONARD

171A-171B. History of the United States

From 1763 to the present day. An outline course dealing with the political and constitutional history of the United States, with attention to social and economic development. Lectures, discussions, assigned readings, frequent oral and written quizzes.

Three units; throughout the year.

LEONARD

172. History of the United States Since 1865

A study of the political and economic development of the United States since the Civil War, including a consideration of the causes of American participation in the World War and the events that followed.

Three units; one semester.

LEONARD

182. Spanish Colonization of the West Coast of North America

An introduction to the study of Spanish America. The course aims at tracing the Spanish progress in North America, especially along the West Coast, with special attention to Spanish institutions and history in California. The work is based on a syllabus. The classroom work is largely lecture, with frequent oral and written quizzes.

Three units; one semester. (Not offered in 1924–25.)

LEONARD

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 will be discussed.

Two units; one semester.

HOME ECONOMICS

HOUSEHOLD ART

Preparation for the major in Household Art, required: High school courses in Botany, Chemistry, Physics, and Mechanical Drawing, or Botany 2A, Chemistry 2A-2B, Physics 2A-2B, and Mechanical Drawing C. Household Art 1A-1B; Art 6A-6B, 12; History 4A-4B; Economics 1A-1B; or equivalents. Recommended: High school course in clothing, Art 1, Psychology 2A-2B, French or German.

BOSTIAN

1A. Clothing

A study of clothing problems. The hygiene, artistic and economic aspects of clothing. One lecture or recitation and two laboratory periods per week. Prerequisites: One year of high school sewing, or equivalent, Art 6A. Art 6A may be taken concurrently with this course.

Three units; first semester.

BOSTIAN

1B. Clothing and Costume Design, Textiles

A study of costume design with lectures on artistic appreciation, color and materials. Textile study includes a survey of textile fabrics, chemical and physical test. Application of principles to the selection and construction of clothing. One lecture or recitation and two laboratory periods per week. Prerequisites: Clothing 1A, or equivalent, high school Chemistry or Chemistry 1A, Art 6B. Art 6B may be taken concurrently with this course.

Three units; second semester.

COLDWELL

2A. Home Making

A general view of the 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 reading and theme writing required. Lectures, class discussion, recitations.

Two units; either semester.

BOSTIAN

3. Millinery

Making of hats, frames, trimmings, etc. Application of principle of design. Prerequisite: Art 6A. Art 6A may be taken concurrently with this course. Recommended: Art 6B.

Two units; one semester.

Household Science

Preparation for the major in Household Science, Household Science 1A-1B, Chemistry 1A-1B, 8, Bacteriology 1.

1A. Food Economics — Bostian

Principles of selecting and preparing foods. A study of composition, production, preservation, nutrition value, digestibility, flavor and cost of foods. One lecture or recitation and two laboratory periods per week. Prerequisites: One year of high school cooking, or equivalent, Chemistry 1A. Chemistry 1A may be taken concurrently with this course.
Three units; first semester.

1B. Food Economics — Bostian

Principles of diet applied to individual family and special group. The planning and serving of meals. One lecture or recitation and two laboratory periods per week. Prerequisites: Food Economics 1A or one year of high school cooking, high school chemistry or Chemistry 1A.
Three units; second semester.

2. Dietetics — Bostian

An analysis of food with special reference to needs of special group. Prerequisites: Food Economics 1A-1B, Chemistry 1A-1B, Organic Chemistry 8 (to be taken concurrently with this course), Bacteriology 1.
Two units; one semester.

HYGIENE

1. Hygiene and First Aid — C. E. Peterson

An informational course in personal and community hygiene required of all men in the freshman year in the Junior College. The course includes a study of Sex Hygiene and of the Hygienic Principles of Exercise, Bathing and Sleep. Civic Hygiene is vitalized through investigations by each student of special topics, the means by which 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.

2. Hygiene and First Aid — Tanner

An informational course reviewing the principles underlying the improvement and preservation of personal and civic health. Social Hygiene is studied in its relations to the practical problems of young women and prospective homemakers. The laws and procedure 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 discussed before the class. Required of all women in the freshman year in the Junior College.
Two units; either semester.

JOURNALISM

51A. News Gathering and Reporting — F. L. Smith

Study of news sources and practice in news writing. Newspaper organization.
Three units; first semester.

51B. News Editing and Correspondence — F. L. Smith

Practice in copy-reading. Study of news values and types of newspaper stories.
Three units; second semester.

MATHEMATICS

Preparation for the major in Mathematics, required: Mathematics 3A-3B and 4A-4B. Recommended: Physics 2A-2B or 1A-1B and a reading knowledge of French and German.

A. Algebra

Course A is substantially the equivalent of the high school course in algebraic theory. It includes: a brief review of the fundamental operations, factoring, powers and roots, logarithms, graphs, solution of equations, the binomial theorem, progressions, permutations and combinations. Prerequisites: Elementary Algebra and Geometry.
Three units; first semester.

C. Trigonometry

Course C includes the usual high school course in Trigonometry, but gives more attention to trigonometric identities and equations. The usual trigonometric formulæ are developed and used in the solution of triangles. Logarithmic computation is explained and used. Prerequisite: Mathematics A or its equivalent.
Three units; second semester.

1A-1B. General Course — Livingston

The course begins with the solution of simple problems by graphical methods; then by the more exact methods of differential and integral calculus. The work in calculus is later extended to problems in Trigonometry and Analytic Geometry, the essentials of these subjects being presented as needed. Incidentally there is an adequate treatment of the topics usually presented in advanced high school Algebra. This course should give at least a general view of those processes in Mathematics which are so necessary to the solution of problems in the exact sciences and which are proving a valuable aid to students of Social Science and Business Administration. It is intended primarily for nonengineering students. Prerequisites: Elementary Algebra and Geometry.
Three units; throughout the year.

2. Mathematics of Investment — Wright

An application of Algebra to interest and annuities, including equation of value, amortization, sinking funds and depreciation, and life annuities. The course shows the value of generalizing business problems by means of formulæ, provides drill in the use of tables, and strengthens the student's ability to do accurate work in the fundamental operations of Arithmetic. Prerequisite: Mathematics A or its equivalent, or Mathematics 1A-1B.
Three units; first semester.

Elements of Analysis, with Applications

A two-year course in Algebra, Analytic Geometry, and Calculus, intended primarily for studies in Engineering and Chemistry.

3A-3B. Plane Analytic Geometry and Differential Calculus — Livingston

Prerequisites: Mathematics A and C or their equivalents.
Three units; throughout the year.

4A-4B. Solid Analytic Geometry and Integral Calculus — Livingston

Prerequisite: Mathematics 3A-3B or its equivalent. The high school course in Solid Geometry is also strongly recommended.
Three units; throughout the year.

MUSIC

The primary aims of the various music organizations are to give the students participating, and incidentally the entire college student body listening, an added love for and knowledge of the best in Choral and Orchestral Music. Added to this are the cultural advantages to be gained, the ability to read and perform good music, the mind training in the necessary concentrating upon the wishes of a conductor, the poise which comes with appearing before public audiences, the promotion of college spirit, the enriching of student and college activities, and the great pleasure and ennobling effect of artistic expression through music.

1A, B, C, or D. Treble Clef Club — L. D. SMITH

One-half unit; either semester.

1A, B, C, or D Male Chorus — L. D. SMITH

One-half unit; either semester.

1A, B, C, or D. Choral Club — L. D. SMITH

One-half unit; either semester.

1A, B, C, or D. Orchestra

One-half unit; either semester.

3. History and Appreciation of Music — L. D. SMITH

Development of primitive systems; mediaeval music; the school of counterpoint; history of oratorio and opera; the rise of classic forms. A study of the works of the composers of the classic and romantic periods. Illustrations, lectures and reports.

Three units; one semester.

PHYSICAL EDUCATION

Preparation for the major in Physical Education, required: High school Chemistry, Biology 10A-10B, Physiology 1, Bacteriology 1, Economics 1A-1B, Psychology 2A-2B. Recommended: German or French, Public Speaking 1A-1B.

Physical Education for Men — C. E. PETERSON

A two-hour course required for the two years of Junior College work. Physical examination is given each student when entering and special attention is given to correcting postural faults. In addition to the body building work given in the class periods, physical efficiency tests embracing agility, defense and swimming are given each semester. During the two years a playing knowledge of the major and minor sports is given and fundamentals of boxing and wrestling taught each student.

1A, B, C or D. Physical Education. One-half unit; throughout the year.
13A or B. American Football. One-half unit; first semester.
3A or B. Track. One-half unit; second semester.
4A. Baseball. One-half unit; second semester.
5A or B. Basketball. One-half unit; second semester.
6A or B. Tennis. One-half unit; either semester.
7A or B. Boxing. One-half unit; either semester.
8A or B. Wrestling. One-half unit; either semester.
10A, B, C or D. Swimming. One-half unit; either semester.

Physical Education for Women — TANNER

Students are given a health and physical examination, the physical activities prescribed being based upon the data thus obtained. Two hours weekly of directed Physical Training are required of all women students, the chief purpose being to develop a knowledge of and interest in suitable sports and games, that habits of vigorous exercises may be promoted.

Intra-mural sports are encouraged, particularly those of inter-class nature.

52A-52B. Physical Education

Prescribed courses for freshmen in the Junior College.
One-half unit; throughout the year.

52C-52D. Physical Education

Prescribed courses for sophomores in the Junior College.
One-half unit; throughout the year.

PHYSICS

Preparation for the major in Physics, required: Physics 2A-2B and 3A-3B, with a grade of B, or Physics 1A-1B and 4A-4B; Chemistry 1A-1B; Mathematics C, 3A-3B and 4A-4B, or their equivalents. Recommended: A reading knowledge of French and German.

1A-1B. General Physics — BAIRD

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, problem sets and experimental laboratory work. Two lectures and one laboratory period each week. Prerequisites: Physics 2A-2B and 3A-3B or high school Physics; three years of high school Mathematics, including Trigonometry.

Three units; throughout the year.

2A-2B. General Physics — BAIRD

Properties of matter, mechanics, heat, sound, light, electricity and magnetism. A non-engineering course. Lectures, demonstrations, and discussions. Prerequisite: High school advanced Algebra or high school Physics, or equivalents.

Three units; throughout the year.

3A-3B. Physical Measurements — BAIRD

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; throughout the year.

4A-4B. General Physics — BAIRD

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; throughout the year.

PHYSIOLOGY

Preparation for the major in Physiology, required: Zoology 1A-1B or Physiology 1, Physics 2A-2B and 3A-3B, Chemistry 1A-1B and 8-9. Recommended: German and French.

1. Introductory Human Physiology

The structure and functions of the human body, to give a general conception of the relationship of the human body to its environment. Three lectures or recitations; two laboratory periods per week. Prerequisite: At least one of the following: Zoology 1A-1B, Biology 10A-10B, Chemistry 1A-1B or 2A-2B and 3A-3B.

Five units; first semester. (Not offered in 1924–25.)

POLITICAL SCIENCE

Preparation for the major in Political Science, Political Science 1A-1B and Economics 1A-1B or History 4A-4B.

The foundation work in Political Science consists of comparative study of the governments and politics of Continental Europe, England and the United States. The aim of the course is to broaden the viewpoint of the student in matters of government and politics, and to prepare the way for more intensive study. The classroom work consists of lectures, special reports, oral and written quizzes. High school Civics is presupposed.

1A. Comparative Government — LEONARD

The governments and parties of England and France.

Three units; first semester.

1B. Comparative Government — LEONARD

The governments of Italy, Germany, Belgium, Switzerland and the United States. Three units; second semester.

PSYCHOLOGY

Preparation for the major in Psychology, required: Psychology 2A and 2B, Zoology 1A-1B, or Biology 10A-10B. Recommended: French, German, Chemistry, Sociology 50.

A. How to Study — BELL

Required of all entering students. Lectures on the elementary psychology of study and learning, silent reading tests, student self-ratings, the technique of study, use of texts, note taking, etc., with class discussions and reports. A paper is required from each student. One hour per week for 9 weeks.

One-fourth unit; either semester.

2A. General Psychology — BELL

A study of the modern scientific interpretation of the facts of consciousness; their relation to each other, to their external stimuli, and to the nervous system.

The aim is (1) to increase the student's understanding of himself and to contribute to his intelligent, discriminating reading of current popular and scientific literature; and (2) to give a definite and necessary basis for advanced work in Psychology.

Three units; first semester.

2B. Applied Psychology — 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 plausibility or because of its mysticism.

Three units; second semester.

145. Social Psychology

The instinctive and reflective side of man, and his adjustments to civilization. Personality, suggestion and imitation, leadership, the crowd, public opinion, social control, etc. Prerequisite: Sociology 50 or Psychology 2A.

Three units; second semester.

PUBLIC SPEAKING

Preparation for the major in Public Speaking, Public Speaking 1A-1B or English 1A-1B, Public Speaking 2A.

1A-1B. Elements of Public Speaking — LANE

Training in fundamental processes; organization and arrangement of material; outlining; practice in the construction and delivery of type forms of speech.

Three units; throughout the year.

2A. Elements of Expression and Interpretation — LANE

A study of the laws governing correct voice production. The essentials of effective oral interpretation. Practice in reading and speaking.

Three units; first semester.

118A. Art of Acting: Theory and Practice — LANE

The psychology of acting; the cultivation and development of the dramatic instinct through character portrayal. Study and presentation of selected one-act plays. Open to all students who have the permission of instructor.

Three units; second semester.

ZOOLOGY

Preparation for a major in Zoology, required: Zoology 1A-1B and high school chemistry or Chemistry 1A. Recommended: French and German.

1A. Zoology — JOHNSON

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. Three lectures or recitations and two three-hour laboratory periods per week.

Five units; first semester.

1B. Zoology — JOHNSON

A continuation of 1A. The first half of the semester is given to the study of the structure and behavior of the chordates, with a detailed dissection and study of the shark. The second half is devoted to the study of the early development of the various types of animals, especially the chick. The course deals with the higher animals, the vertebrates, thus supplementing the work of the first semester. The detailed dissection of the shark and the careful study of the developing chick give the student a good basis for further work in medicine, agriculture, or zoology, and furnish as well a good biological background for students in any line of work. Three lectures or recitations and two three-hour laboratory periods per week.

Five units; second semester.

10A-10B. Biology — JOHNSON

The fundamentals of plant and animal biology, with elementary work in heredity, evolution and eugenics. The laboratory work supplements the lectures and includes a study of living and preserved material. The aim of the course is to acquaint the general 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 or recitations and one three-hour laboratory period per week.

Three units; throughout the year.

101. Seashore Biology — JOHNSON

Illustrated lectures deal with the more common animals that are to be found at nearby beaches. The life history, habits, and distribution of our more conspicuous shore animals are considered. Students will have the opportunity to get acquainted with the living animals both at the beach and in the laboratory. This course may be taken alone or concurrently with 10A-10B. One hour lecture per week and trips to the beach as opportunity offers.

One unit; one semester.

114. Heredity and Evolution — JOHNSON

A discussion of the facts of heredity, in plants, animals and man; the Mendelian law and its application; development of theories of evolution. Reports on assigned topics are required. The course is designed to make the student familiar with some of the current literature and opinions of scientists concerning heredity and evolution. Prerequisite: Biology 10A-10B or Zoology 1A-1B or Botany 2A-2B.

Three units; first semester.

115. Eugenics — JOHNSON

A study of Human Heredity and Eugenics. Assigned readings and reports. The aim of the course is to acquaint the student with current literature on the subjects of Eugenics, including investigations that have contributed data on the subject. Prerequisite: Heredity and Evolution 114.

Two units; second semester.

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CALIFORNIA STATE PRINTING OFFICE
FRANK J. SMITH, Superintendent
SACRAMENTO, 1924