San Diego State College Bulletin

AND

Announcement of Courses

1929-1930

June, 1929

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The Educational Quarterly

BULLETIN OF THE

State Teachers College of San Diego

Volume Seventeen JUNE, 1929 No. 2

STATE TEACHERS COLLEGE OF SAN DIEGO

Administered Through

DIVISION OF NORMAL AND SPECIAL SCHOOLS

OF THE

STATE DEPARTMENT OF EDUCATION

VIERLING KERSEY - - - - - - Superintendent of Public Instruction
ex officio Director of Education
SAM H. COHN - - - - - - - - - - - Deputy Director of Education

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ARTHUR G. PETERSON - - - - - - - - - - - - Dean of Liberal Arts
MRS. ADA HUGHES COLDWELL - - - - - - - - - - Dean of Women
CHARLES B. LEONARD - - - - - - - - - - - - Acting Dean of Men
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FACULTY

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

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

WILLIS E. JOHNSON, Dean of Education. Director of Summer Sessions. Professor of Education. Graduate of State Normal School, St. Cloud, Minnesota; Ph.B., A.M., Illinois Wesleyan University; A. B., A.M., Ph.D., University of Minnesota; Sc.D., South Dakota State College; LLD., Dakota Wesleyan University. Taught in rural, village and city schools, state normal schools and universities. 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.)

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

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

GEORGIA C. AMSDEN, Assistant Professor of Commerce. Gregg School, Chicago; special secretarial training in various institutions; University of California summer session and extension division work; Teacher in University of California summer school, 1918; traveling representative and secretary for the Federal Board for Vocational Education, France, World War; in charge of stenographic Division, Department of Personnel, American Red Cross Headquarters, Paris, World War; Secretary, Standard Life and Accident Insurance Company, Detroit, Michigan; Assistant editor and reporter, Ypsilanti, Michigan, Daily Press; Instructor, San Diego High School, 1909–1924. (Appointed September 1, 1925.)

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

RUTH G. BAGLEY, Assistant Professor of English. A.B., University of Michigan; A.M., University of California; graduate study, University of Illinois and Columbia University; Head Department of English, State Normal School, Oshkosh, Wisconsin; Instructor, San Diego Junior College, 1919–1821. (Appointed September 1, 1921.)

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

FRED BEIDLEMAN, Assistant Professor of Music. B.S., Columbia University, 1914; B. Mus., Columbia, 1915. Teacher of music, Boys High School, Brooklyn, N. Y., 1916. Instructor, Columbia, 1917–1919; head of violin department, University of Illinois, 1920–1921; assistant professor of music, University of North Dakota, 1921–1924; professor of music and director of the Conservatory, College of Puget Sound, Tacoma, Washington, 1924–1927. (Appointed May, 1927.)

MRS. GERTRUDE SUMPTON BELL, Associate professor of Psychology. Tests and Measurements. A.B., Indiana University; M.A., Stanford University; graduate Indiana State Normal School; research work, Clark University; Assistant in Education and Director of Practice Teaching, University of Colorado; State Institute Lecturer, Montana; Instructor, School of Education, Indiana University. (Appointed August 1, 1916.)

MARY BENTON, Associate Professor of Art. Student at Rosemont Dezaley, Lausanne, Switzerland; at Chicago Art Institute; at New York School of Art; at Teachers College, Columbia University; pupil of W. J. Whittemore, minature painter, and of Sara Butterworth, craftsman. (Appointed July 1, 1916.)

ELIZABETH MCPIKE BROWN, Assistant Professor of French. Ph.B., M.A., Ph.D., University of Chicago; Diplôme de Phonétique, Ecole des Hautes Etudes, Paris, France; Certificate d'Etudes Francaises, University of Paris. Assistant in French, University of Chicago, 1918–1920; summer quarter, 1922; Head of French Department, Rockford College, Rockford, Illinois; Instructor in University of California, Extension Division, San Diego. (Appointed September 1, 1926.)

LESLIE P. BROWN, Associate Professor of Spanish. A.B., Yale University; M.A., Harvard University. Instructor in French and Spanish, Northwestern University, 1913–1915; Instructor in Harvard University, 1916–1917; Instructor in University of North Carolina, 1917–1918; Instructor in University of Chicago, 1918–1922. (Appointed July 1, 1922.)

M. EUSTACE BROOM, Assistant Professor of Education. Student, University of Chicago. A.B. and M.A., University of Illinois. Assistant in Psychology, University of Illinois, one year; Teacher in Illinois high schools, two years; Superintendent of Schools, Illinois and West Virginia, three years; Instructor in Education, Extension Division, Concord State Normal School, West Virginia, one year; graduate student, University of Southern California; Teacher, Francis W. Parker School of San Diego, two and one-half years; Associate Editor, *The High School Teacher*. (Appointed February 1, 1928.)

VINNIE B. CLARK, Associate Professor of 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; travel in Europe, 1924. (Appointed September 1, 1914.)

KATHERINE E. CORBETT, Training Supervisor and Assistant Professor of Education. 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 course; Training Supervisor, Kent State Normal College, Ohio. (Appointed July 1, 1921.)

J. GRANT CRAMER, Assistant Professor of Modern Languages. A.B. and M.A., New York University; two years study at Columbia Law School; two years study at the University of Leipzig, Germany; twenty years residence, travel and study in Europe; Instructor French and German, Lehigh University, Bethlehem, Pennsylvania; Associate Professor, Modern Language Department, Boston University; August, 1917, to March 1919, Captain of Infantry, U. S. Army, Military Intelligence Division. (Appointed September 1, 1928.)

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

WALDO H. FURGASON,* Biology, B.A., St. Olaf College, Northfield, Minnesota; 1924; Teaching Fellow, 1923–1924; Diploma St. Olaf School of Music, 1925; Instructor in Music, Roosevelt Junior High School, San Diego, 1925–1926; graduate study, University of Southern California, summers of 1925 and 1926. (Appointed September 1, 1926.)

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

WALLACE A. GILKEY,* Assistant Professor of Chemistry. A.B. and C.B. (Chemical Engineer) at Stanford University; graduate student, Stanford University; Instructor at Seale Military Academy, spring of 1922; employed two years in chemical engineering with the Santa Cruz Portland Cement Company in the Cottrell Precipitation Plant; the American Smeltering and Refining Company as laboratory chemist; and the Refinery of Standard Oil Company at El Segundo, California, as chemical engineer and petroleum inspector. (Appointed September 1, 1925.)

* On leave of absence 1928–1929.

EDITH C. HAMMACK, Training Supervisor and Assistant Professor of Education. 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 February 1, 1911.)

DOROTHY R. HARVEY, Biology. A.B., San Diego State College; M.A., University of Southern California; graduate work in Biology at Scripps Biological Institute, La Jolla, at the University of California; public school teaching, five years. (Appointed September 1, 1924.)

ROBERT D. HARWOOD, Assistant Professor of Zoology. A.B., Pomona College; Ph.D., Cornell University; Assistant in Biology, Cornell University, 1920–1921; Field Entomologist, Natural Survey of Illinois, 1921–1922; Teacher, Kern County Union High School and Junior College, Bakersfield, 1922–1925; Assistant in Entomology, Cornell University, 1925–1928; Stream Survey, Conservation Department, New York, 1927. (Appointed September 1, 1928.)

MARGUERITE VEASEY JOHNSON, Registrar. Assistant Professor of Culture History. A.B., Radcliffe College; A.M., Columbia University; four years teaching experience; three years an assistant in the Registrar's office, Teachers College, Columbia University. (Appointed July 1, 1927.)

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

SYBIL ELIZA JONES, Assistant Professor of English. B.L., M.L., University of California. Director Junior Players of Pasadena Community Playhouse; Drama Instructor in Chouinard Art School, Los Angeles; Organizing Secretary and Instructor in Play Writing of Summer Art Colony at Pasadena Community Playhouse; Drama Organizer and Director of San Diego Community Service. (Appointed September 1, 1925.)

GENEVIEVE KELLY, Sociology. A.B., University of California; A.M., Columbia University; Los Angeles Public Library School, one year; teacher at Corcoran Union High School; Librarian at Northern Arizona Normal School, Flagstaff; Librarian at Scripps Foundation for Research in Population Problems, Oxford, Ohio. (Appointed September 1, 1924.)

GUINIVERE KOTTER, Training Supervisor and Assistant Professor of Education. B.S., Utah Agricultural College; M.A., Stanford University; advanced graduate work, Stanford University, 1926–1928; professional study, University of California and Teachers College, Columbia University. Teacher in public schools; primary supervisor; professor of elementary education. (Appointed July 1, 1928.)

MARJORIE E. LANDERS, Assistant Professor of Home Economics. A.B., Stanford University; Special Certificate Home Economics, Santa Barbara State Teachers College; Head Department Home Economics, San Juan Union High School; Assistant Dietitian, Fabiola Hospital, Oakland, California, 1918; Home Economics, McKinley High School, Honolulu, T. H.; Kern County Union High School, Bakersfield, California. (Appointed September 1, 1924.)

CHARLES B. LEONARD, Professor of History. A.B., M.A., Ph.D., University of California; graduate study, three years at University of California; Instructor in History, Lowell High School, San Francisco. Teaching Fellow in History, University of California, 1924–1926. (Appointed September 1, 1921.)

LEWIS B. LESLEY,* Assistant Professor of History. A.B., Stanford University; M.A., University of California; Instructor, Principia School, St Louis, Mo., 1920–1921; Teaching Fellow in History, University of California, 1922–1923; Native Sons' Traveling Fellow in Europe from University of California, 1923–1924; Acting Assistant Professor of American History, Pomona College, 1925–1926. (Appointed September 1, 1924.)

GEORGE R. LIVINGSTON, Assistant Profesor of Mathematics. B.S., M.A., University of California; Instructor, San Diego Junior College, 1914–1918; Head of Department of Mathematics, Santa Barbara Junior College, 1919–1921. (Appointed September 1, 1921.)

*On leave of absence, 1928–1929.

RICHARD S. MCINTYRE, Assistant Professor of Engineering. B.S. (Mining); M.S. (Petroleum Engineering) University of California; Mining Engineer, Burma Mines, Ltd., Burma, India, 1916–1918; Construction Engineer, Burma Mines, Ltd., Bengal, India, 1918–1919; Mining Engineer Chemist and Mill Foreman, Grecia Mines, Ltd., Nicaragua, C. A., 1919–1921; Mine examination work, California and Old Mexico; Senior Instructor University of California, Mining and Petroleum Engineering, 1922–1926; Petroleum Engineer, Standard Oil Company of California; oil-shale research, U. S. Bureau of Mines, Colorado; Head of Science and Mathematics Department, Taft High School and Junior College, 1926–1927. (Appointed July 1, 1927.)

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

ABRAHAM P. NASATIR, Assistant Professor of History. A.B., M.A., Ph.D., University of California; Assistant Teaching Fellow in History, University of California, 1920–1926. Native Sons' Traveling Fellow in History (in Europe), 1924–1925; Instructor in History, State University of Iowa, 1926–1927.

WILLIAM L. NIDA, Associate Professor of Education, Supervisor of Public School Practice Teaching and Appointment Secretary. Ph.B., Ohio State University; graduate student, University of Chicago; M.A., University of Southern California; Principal of Ohio High Schools, nine years; Superintendent of Schools, seventeen years, Illinois; Supervisor Junior High Schools, San Diego, California, two years. (Appointed July 1, 1921.)

CHARLES E. PETERSON, Assistant Professor of Physical Education. Director of Physical Education for Men; 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; Berkeley School System. (Appointed July 1, 1921.)

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

LEO FRANCIS PIERCE, Professor of Chemistry. B.S., Grinnell College; M.Sc., Tulane University; Ph.D., Stanford University; Research Assistant and Instructor, University of Idaho; Professor of Chemistry, Washburn College; Instructor and graduate student, Tulane University; University Fellowship, Stanford University; Deutsche Chemische Gesellschaft; Lecturer in Chemistry, Mercy Hospital, San Diego, California. (Appointed September 1, 1923.)

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

MABEL M. RICHARDS, Training Supervisor and Assistant Professor of Education. B.S., 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, Associate Professor of Industrial Arts, University of Illinois, State Normal School, Bellingham Washington; A.B., State Teachers College of San Diego; Teacher of Industrial Work at East Chicago, Indiana; Grand Rapids, Michigan; Director Industrial Arts at Evanston, Illinois; Muncie Normal Institute, Muncie, Indiana; State Normal School, Bellingham, Washington. (Appointed September, 1918.)

W. T. SKILLING, Associate Professor of Astronomy, State Normal School, Los Angeles; Teacher in Los Angeles county and city public schools five years; student at Stanford University one year; B.S., M.S., University of California; Assistant in Physics, University of California, 1899–1901. (Appointed September, 1901.)

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

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

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

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

S. LAVENDER STOVALL, Assistant Professor of Engineering. Student University of Texas, 1895–1896, 1897–1898; B.S., in Electrical Engineering, University of California, 1924. Five years with the General Electric Company, research and design of aparatus; five years Chief Engineer of Mt. Whitney Power and Electric Company; three years on Irrigation Engineering; four years Efficiency Engineer in the oil fields of California. (Appointed September 1, 1924.)

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

JESSIE RAND TANNER, Associate Professor of Physical Education. B.S., Columbia University; Graduate Boston Normal School of Gymnastics; Bachelor's Teaching Diploma, Teachers College, Columbia University; tutor, Brookline, Massachusetts; graduate student, University of California, 1925; Supervisor of Physical Education, San Diego County Rural Schools, 1921–1923. (Appointed July, 1904.)

FRANKLIN D. WALKER,* Assistant Professor of English. University of Arizona. Holder of Arizona Rhodes Scholarship to Oxford, 1920–1923. B.A., (Hons. Oxon.), University of Oxford. Graduate Student, University of California. Instructor in Dramatics, Francis W. Parker School, San Diego, California, 1924–1926. (Appointed September 1, 1926.)

W. H. WRIGHT, Assistant Professor of Commerce. B.S., University of California; graduate study, one year, University of California; Head Department of Commerce, Union High School, Visalia, California, 1917–1921. (Appointed September 1, 1921.)

SPECIAL LECTURERS

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

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

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

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

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

JOHN ASELTINE, Vocational Guidance. A.B. and M.A., Stanford University. Principal of San Diego High School.

INSTRUCTORS

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

*On leave of absence, 1928–1929.

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

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

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

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

MAJORIE KELLY, Fine Arts. A.B., University of California at Los Angeles. Pupil, in Paris, of Andre Lhote, Painter, and of Mme. Alexandra Exter, Russian Stage Designer. Instructor in Fine Art, Pasadena Junior High School. (Appointed September 1, 1927.)

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

CLARENCE GLADDEN OSBORN, History. A.B. and M.A., Stanford University. Instructor in Problems of Citizenship, Stanford University, 1927–1928.

ELSIE B. PARKER, Speech Correction. Specialist in Division of Special Education, California Department of Education.

DUDLEY H. ROBINSON, Chemistry. B.Sc. in Sugar Engineering, University of Louisiana; Audubon Sugar School, 1927; Chemist University of Louisiana Sugar House, 1925; Chemist, Raceland Sugar Factory, 1926; Chemist, State Sugar House, Louisiana, 1927; Research Chemist, Thornley and Company, 1927–1928; Chief Chemist, Pacific Marine Chemicals, Inc., 1928. (Appointed September 1, 1928.)

Medical Examiners

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

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

CALENDAR 1929-1930

Summer Sessions, 1929.

Term I, six weeks, June 24–August 2.
Term II, four weeks, August 4–26.

Fall Semester, 1929–1930.

September 4, 8.00 a.m., College Aptitude Test.*
September 4, 1.30 p.m., Assembly of New Students.
September 5, 8.00 a.m., Examination in Subject A (English Composition).
September 5, 10.30 a.m., Assembly of New Students.
September 5, 1.30 p.m., Fundamentals Test.†
September 5, 7.30 p.m., Reception to Freshmen.
September 6, 8.30 a.m., to 4.00 p.m., Registration of Old Students.
September 7, 8.30 a.m., to 4.00 p.m., Registration of New Students.
September 10, Class Work Begins.
November 11, Legal Holiday.
November 28, 29, Thanksgiving Recess.
December 14, Christmas Recess Begins.
Dec. 30 ~~January 2~~, 1930, Class Work Resumes.
January 23–29, 1930, Mid-Year Examinations Begin.
" 29, 1930 " " Graduation Exercises

Spring Semester, 1930.

January 30, 8.00 a.m., College Aptitude Test.*
January 30, 1.30 p.m., Assembly of New Students.
January 31, 8.00 a.m., Examination in Subject A (English Composition).
January 31, 10.30 a.m., Fundamentals Test.†
January 31, 7.30 p.m., Reception to Freshmen.
January 31, 8.30 a.m., to 4.00 p.m., Registration of Old Students.
February 1, 8.30 a.m., to 4.00 p.m., Registration of New Students.
February 3, Class Work Begins.
April 12–20—Spring Recess.
May 1, Dedication Day.
May 30, Legal Holiday.
June 5–12, Final Examinations.
June 13, Annual Commencement Exercises.

Summer Sessions, 1930.

Term I, six weeks, June 23–August 1.
Term II, four weeks, August ~~4~~–26.

HISTORICAL SKETCH

The State Teachers College of San Diego, usually designated the San Diego State College and formerly known as the State Normal School of San Diego, was established by legislative enactment March 13, 1897, and received its first class in the autumn of 1898. In April, 1921, the school, together with all of the California normal schools, received by act of the legislature, later approved by the Governor of the state and becoming effective July 28, 1921, the designation of State Teachers College, its full legal title being, "State Teachers College of San Diego."

In June, 1921, under an enactment of the legislative session of the same year, known as the "Junior College Law," the San Diego Junior College was merged with the State Teachers College of San Diego. Under the arrangement thus made, collegiate courses of the lower division (freshman and sophomore years) have been offered, both to students preparing for the work of the upper division (junior and senior years) of colleges and universities and to students preparing themselves for the teaching service in the new three- and four-year curricula recently established by the State Board of Education. The four-year curricula leading to the degree A.B. (major in Education) were established for this institution June 30, 1923.

Since July 1, 1927, the courses formerly carried as "junior college" courses have been offered as lower division courses of the regular three- and four-year curricula. On July 12, 1928, the college was authorized, by the State Board of Education, to offer presecondary curricula with majors in Chemistry, History, English and

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

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

Romanic Languages, and special secondary certification curricula with majors in Physical Education and Fine Arts, all of them leading to the A.B. degree.

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

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 and a second term of four weeks. Students may enter at the beginning of either semester and at the beginning of either summer term.

The Summer Session meets the needs of 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 liberal arts students who wish to secure supplemental credit or to shorten the time for completion of work for the Junior Certificate.

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

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

DEPARTMENTS OF INSTRUCTION

Teacher Training

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

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

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

Liberal Arts

In the Liberal Arts division courses are offered in the following fields: Anthropology, Economics, Engineering, English, Foreign Language, Geography, Graphic Art, History and Political Science, Hygiene, Mathematics, Music, Psychology, Botany, Physics, Chemistry and Zoology.

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

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, conferrence, etc.—The Dean of Education.

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

Concerning health and physical condition, school athletics, rowing, etc.—The Director of Physicial 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 Liberal Arts; 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:

Kappa Delta Pi (National Education Honor), Delta Kappa (Chemistry), Engineering Club, Geography Club, Spanish Club, Art Club, International Relations Club, Two Masque Players, Treble Clef Club, Men's Glee Club, College Orchestra.

Men: Men's Club, Epsilon Eta, Eta Omega Delta, Phi Lambda Xi, Sigma Lambda, Kappa Phi Sigma, Omega Xi, Tau Delta Chi, College "Y" Club, The Aztec Club.

Women: Associated Women Students, Women's Athletic Association, College Y. W. C. A., Shen Yo, Sphinx, Fra Di Noi, Komo Klub, Gamma Phi Zeta, Phi Kappa Gamma, Phi Sigma Nu, Sigma Pi Theta, Tau Zeta Rho, S. A. B. E. Club.

Men's Athletics: Football, Baseball, basket ball, track, swimming and tennis.

Women's Athletics: Tennis, basket ball, fencing, rowing and swimming.

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

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 COURSE CHARGES

English, Subject A	$0 25
Fundamentals test	50
College Aptitude test (Thorndike)	5 00
Fee for additional transcript	1 00
Special examination fee	2 00
Library deposit ($1.00 refundable)	2 00

EACH SEMESTER

Payable at Time of Registration

Registration fee	$1 50
Part-time (less than six units) registration fee	5 00
Late registration fee (penalty)	2 00
Syllabus	1 00
Towel service (men and women)	1 50
Locker (Physical Education or Art), each key	50
Art 12A, 61A, 94A, 152A	1 00
Biological Sciences	2 00
Chemistry 1A-1B, 6AA, 6A-6B, 8-9	7 50
Chemistry 101-102	2 50
Chemistry 123-124 (per hour)	2 50
Chemistry deposit (each course)	5 00
Education CVIII	3 00
Geography 1, 1A, 2, 2A, 116D, 117, 121, 124, 141	1 50
Geography 3 (Meteorology)	3 00
Geography 113 (Climatology)	3 00
History 8A-8B	1 25
History 4A-4B, 5A-5B, 111A-111B, 151A-151B, 173A-173B	2 50
Industrial Arts 1A, 1B, 61B	2 00
Industrial Arts 4	3 00
Industrial Arts 8A, 8B	4 00
Mineralogy 1A-1B, 2	3 00
Mineralogy deposit	2 00
Music 2A-2B, 3A-3B	1 00

Physics (each course, except 2A-2B)	$3 00
Physics deposit	2 00
Speech Arts 55A, 55B, 55C, 55D	2 50
Speech Arts 151	2 00
Surveying	3 00
Surveying deposit	2 00

The English Department reserves the right to collect a library deposit fee, not to exceed two dollars, for a course which does not require the purchase of a text-book.

ORGANIZATIONS FEES

(Each Semester)

Associated Students	$7 50
Freshman, Sophomore, Junior, Senior Class	50
Associated Women Students	50
Associated Men Students	50

EXPENSES

The Dean of Women will furnish, upon request, addresses of homes in which board and room may be secured, also lists of apartment houses and single rooms which may be patronized by students. Occasionally students are placed in positions where they may earn board, room, or small monetary compensation, but because of the irregularity of the demand it is not advisable to enter college entirely dependent upon such an opportunity.

Board and room, two meals per day, may be procured at from $40 to $45 per month. Apartments consisting of one room, kitchenette and bath, renting at $18 to $35 per month, will accommodate one or two persons. Single rooms with kitchen privileges at from $10 to $20 per month are also available. All those listed are in the vicinity of the College.

Other expenses for one semester of eighteen weeks may be estimated from the statement of Fees and Expenses, and Course Charges.

SELF HELP AND LOAN FUND

Opportunities for part-time employment for students not residents of San Diego are frequent, particularly in the case 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 may be offered from time to time, but ordinarily is not sufficiently remunerative to reduce expenses materially. An employment service for men is conducted by the Dean of Liberal Arts. The professional loan fund is administered for students in the teacher training courses, seniors being eligible for assistance. The general loan fund is available for short time loans to worthy young men and women who have been in attendance at the college one or more years. The Kiwanis Club of San Diego and the City Teachers' Association have set aside funds for student loans.

BUILDINGS AND EQUIPMENT

The main college building houses the library, the auditorium, the gymnasium, offices, laboratories and classrooms. The training school is housed in three separate units.

The building for Applied Arts was made ready for accupancy 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 32,000 volumes.

Laboratories for Physics, Chemistry, and Biological Science.

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

For Physical Education, a well equipped gymnasium, lockers and showers, class-rooms, and 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. 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 archæology. There is complete cooperation 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 contains excellent exhibitions of paintings, 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 for important cooperation in the biological field.

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

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

Much of what is best in modern thought and influences is brought to the student body through its weekly assembly, the programs for which, as arranged by a committee of students and faculty, include almost every 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 the process of solution, is that of student relations to the courses of study. At present, the studies are prescribed in arrangements of curricula and "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 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.

Every person admitted as a student to this college must be of good moral character, of good health, at least 16 years of age, and of that class of persons, who, of proper age, would be admitted to the public schools of the state without restriction. Those who wish to enter a teacher training course must be free from any physical or other defect which would impair their fitness for the teaching service.

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

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Candidates may be admitted by either of two methods:

1. Clear admission. High school graduates who present twelve recommended units and principals' certificates of recommendation, will be granted clear admission. Graduates of three-year senior high schools must present nine recommended units earned in grades ten, eleven, twelve.

2. Provisional admission. High school graduates who present fewer than the prescribed number of recommended units, but who through their principals' estimations and recommendations, present satisfactory evidence of ability to profit by courses in teacher training, who have abilities, interests and talents desirable in teaching, and who pass suitable college aptitude tests, may be admitted as provisional students. At the close of the first semester in residence, a complete reevaluation of the credentials and records of all such students will be made. Students will then be granted clear admission, dropped from the college, or for sufficient reason continued as provisional students.

Certificates of successful examinations before the College Entrance Examination Board will be accepted to admit candidates who can not meet the requirements of either of the above methods. 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. They must be made upon a blank form to be obtained from the secretary of the Board upon request.

II. Advanced Standing.

Students from other institutions of recognized collegiate rank may be admitted to advanced standing upon such terms as the Committee on Advanced Standing may deem equitable. In any case a student must have a scholarship record equal to a C average in this college. 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.

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

III. Special Students.

A candidate not less than 21 years of age who has not had the opportunity to complete a satisfactory high school course but who is considered 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. Such students may become candidates for graduation upon satisfying the regular entrance requirements.

GENERAL REGULATIONS

Examinations

All students entering the college are required to take the following tests, mainly for purposes of guidance and assistance: (a) College Aptitude Test. (b) English Composition Test. (c) Social Relations Test. (d) Speech Test. Exceptions may be made for students who register for 6 units of work or less, for former graduates of this college, and for graduates of approved four-year colleges.

The Fundamentals Test in reading, spelling, arithmetic, etc., is a prerequisite for certain courses in Education (see descriptions of courses in Education). Exceptions may be made for former graduates of this college and for graduates of approved four-year colleges.

A physical examination is required of all students at entrance.

Registration

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

Matriculation

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

Classification

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

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 junior; 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 units, in addition to physical education (½ unit), constitute a normal semester's program for all students except those in Engineering, where the normal requirement is 17½ or 18½ units. An entering freshman, however, is allowed to enroll for a maximum of 17 units, and all other students for a maximum of 18 units, provided such additional enrollment seems to the adviser necessary or advisable in order to round out the study program. Ordinarily, only 16 units, in addition to physical education, will be credited toward graduation; except that, after a student's first semester at the college, a program of 17 units, in addition to physical education, will be credited provided the student was registered for at least 12 units in the preceding semester and attained an average of not less than 1.5 grade points; 18 units will be credited provided the student attained an average of not less than 2.0 grade points. Any course in which a student received a passing grade may be used in the satisfaction of course requirements, even though such course is in excess of the units credited for graduation. Credit for a program that does not conform to the above regulations can be obtained only by permission of the Scholarship Committee, upon petition. No student under 21 years of age will be allowed to register for less than 12 units without the permission of the Registrar.

SPECIAL SUBJECT REQUIREMENTS

English Composition

An entrance test in English (Subject A or an equivalent) is given and the results must be considered by students and advisers in the making of schedules. Students are themselves primarily responsible in the matter of overcoming deficiencies. No student whose use of the English language continues to be notably inaccurate or inadequate should expect to receive a certificate of graduation from the 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.

Scholarship Grades and Grade Points

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

Grade points are assigned as follows: Grade A, 3 points per unit; B, 2 points per unit; C, 1 point per unit; D, no points; E, minus 1 point per unit; F, minus one point per unit.

The grade E is used to record work which is of low order but which may be made passable. If by the close of the next semester the work has been satisfactorily completed the grade E is changed to a D, otherwise it is changed automatically to an F. The grade I is used to record work which may be of higher order but which is incomplete for some acceptable reason. As in the case of an E the work must be completed during the next semester or the grade automatically becomes an F.

To qualify for a certificate in any curriculum 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 deficinecy 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.

Probation and Disqualification

A scholarship record below an average of grade D per unit of work undertaken in any single semester disqualifies a student for further attendance at the College.

Any student whose scholarship record shows a cumulative deficit of 12 or more grade points for all work undertaken in the College to the close of any semester will be placed on probation.

A student whose study lists have averaged less than 12 units per semester will be placed on probation if his cumulative deficit equals or exceeds the average number of units carried per semester.

Any probational student whose scholarship falls below an average grade of C in any single semester is disqualified for further attendance at the College. Probationary status may be continued until the cumulative grade points deficit be reduced, in the case of a regular student to an amount less than 12 and, in case of a limited student, to an amount less than the average number of units carried per semester.

A disqualified student may be reinstated after an interval of one semester for reasons satisfactory to the Executive Committee. All applications for reinstatement must be in writing.

Eligibility for Extra-Curricular Activities

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 semester is ineligible in the next succeeding semester to represent the College in connection with any athletic, literary, musical, dramatic, social, or other organization.

Special Examinations and Reexaminations

Entrance examinations and examinations taken for the purpose of removing matriculation definciencies or making up a course left "incomplete" are regarded as special examinations. Reexaminations 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 reexamination.

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 will result in a mark of failure on the student's record. A withdrawal after the sixth week of a semester except for reasons beyond the student's control 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.

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 recommendation 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.

DEGREE REQUIREMENTS

General Requirements for the Degree of Bachelor of Arts in the Teachers College and the Liberal Arts College

The electives must be so chosen that, with the required work, the student will have a total of 6 units of credit in English, 12 units in Social Science and 12 units in Natural Science. Courses in journalism or in speech arts are not accepted as

satisfying the English requirements. The electives in Natural Science may be reduced to a minimum of 6 units if the student presents acceptable grades from the high school in Natural Science in laboratory courses offered in the third or fourth year. In general, each year's work of high school science will thus reduce the requirements by 3 units of credit. No college credit will be given for the high school work, simply an exemption of the requirements will be permitted.

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

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

The course in the U. S. Constitution (Pol. Sci. 101), or the substitute course in Political Science 1B or U. S. History 171B, is required of all candidates for the A.B. degree.

A minimum of 124 units of college work is required. Not less than 54 of these units must be earned in the junior and senior years. All candidates for the A.B. degree must complete at least 30 units of work at this college. Twenty-four of these residence units must be taken with the rank of senior, at least twelve of which are taken in the fall or spring semester. The purpose of these provisions is to preclude the possibility of graduation from the college with the A.B. degree on the basis of residence work which was done prior to the senior year or upon an exclusively summer session record at this college when only a limited sphere of collegiate work and activity is in operation.

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

Teaching Credentials

Students who are planning to teach and to secure California teaching credentials through graduation from this college are urged to follow the patterns of the teacher training curricula. It is highly inadvisable to start on a liberal arts course with the expectation of changing later to a course leading to a teacher's credential. A minimum of 24 units in education (maximum of 40) is required for any teaching credential secured through graduation from this college. Students should note carefully the Course of Instruction statement and prerequisites for Practice Teaching Education CXVI, also for courses I, CXXVIII, CIV, CVIII.

Academic Teaching Majors and Minors

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

An "academic teaching major" should not be confused with an "academic major." The former term alludes to what is considered the minimum college work in an academic field which is required as a preparation for teaching subjects in that field in high school. An "academic major" refers to the minimum college work in an academic field which is required for post-graduate research work in that field. The academic major usually includes about 24 units of upper division work. The academic teaching major in this college is 24 units, 12 of which must be upper division. Similarly, an "academic teaching minor" differs from an "academic minor." By a wise selection of electives a student may usually complete an academic major in the field of his choice instead of meeting the less exacting requirements of an academic teaching major. This will enable the student to pursue post-graduate work in the field of his academic major, if desired, without being compelled to do additional undergraduate work in that field.

TEACHERS COLLEGE CURRICULA

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

Freshman Year

	Units of Credit
First Semester—	
General Biology, Biology 10A (unless taken in High School)	3
Social Ethics	0
Geography Elements (Natural Science), Geog. 1A	2
Physical Education 1A or 52A	½
Art Structure,[1] Fine Arts 6A	2
Second Semester—	
General Biology, Biol. 10B (unless taken in High School)	3
Geography Regions (Social Science), Geog. 2A	2
Physical Education 1B or 52B	½
Art in the Elementary School,[1] Ed. XIX	2
Either Semester—	
Introduction to Social Science	3
Electives for Junior High Credential 18, for Elementary Credential or both	14
Total	32

Sophomore Year

First Semester—	
General Psychology, Psychology 2A	3
Music Fundamentals,[2] Music 1A	2
Games (women), Phys. Ed. 52 or Phys. Ed. 1C (men)	½
Second Semester—	
Genetic Psychology, Psychology 2C	3
Music in the Elementary Schools,[1] Ed. XVII	2
Administration,[1] Phys. Ed. 53	2
Physical Education 1D or 52D	½
Either Semester—	
Introduction to Education,[2] Ed. I	3
Industrial Arts 61A[1] or 61B[1] (both required)	4
Electives for Junior High Credential 22, for Elementary Credential or both	12
Total	32

Junior Year

First Semester—	
Primary Curriculum,[1] Ed. CXXVIII	3
Mathematics in the Elementary School,[1] Ed. CXXIX	2
Children's Literature,[1] Ed. CXXVI	2
Second Semester—	
Practice Teaching,[2] Ed. CXVI	3
Either Semester—	
Educational Measurements, Ed. CVIII	3
Curriculum in Field of Academic Major[3] or Elementary Curriculum,[1, 2] Ed. CIV (or both)	3
Health Education, Phys. Ed. 151	2
Electives for Junior High Credential 20, for Elementary Credential 12, or both	10
Total	30

Senior Year

First Semester—	
Practice Teaching,[2] Ed. CXVI	
Second Semester—	6 or 9
Principles of Elementary Education[1] or	
Principles of Junior High School Education,[3] Ed. CI	3
Electives	3
Total	21 or 18
	30

The Elementary Diploma Course

Lapses September 15, 1930

Freshman Year

	Units of Credit
English	6
Orientation	1
Introductory Principles of Education,[2] Ed. I	3
Introduction to Geography, Elements 1A and Regions 2A	4
Mathematics in the Elementary School,[1] Ed. CXXIX	2
Physical Education	1
Electives[4]	15
Total	32

Sophomore Year

Psychology 2A and 2C	6
Primary Curriculum,[1, 2] Ed. CXXVIII	2
Children's Literature,[1] Ed. CXXVI	2
Music in the Elementary School,[1] Ed. XVII	2
Art in the Elementary School,[1] Ed. XIX	2
Physical Education, 52, 53, 52C or 52D	3
Electives[4]	15
Total	32

Junior Year

Elementary School Curriculum,[2] Ed. CIV	3
Educational Measurements,[2] Ed. CVIII	3
Practice Teaching,[2] Ed. CXVI	10
United States Constitution (Pol. Sci. 101)	2
Electives[4]	14
Total	32

CURRICULA FOR SPECIAL CERTIFICATION

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

Art Education

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

Lower Division	Units
Introduction to Social Science	3
English	6
Physical Education	2
Art 6A-6B	4
Art in Elementary School, Ed. XIX	2
Psychology 2A	3
Introductory Principles of Education, Ed. I	3
Industrial Arts 61A-61B	4
Electives*	37
	64

[1] Not required if only a Junior High School Credential is sought.

[2] Open only to students who have passed the Fundamentals Test.

[3] Not required if only an Elementary School Credential is sought. Taking all courses excepting Ed. CVI leads to the combined Elementary and Junior High School Credential, permitting the holder to teach in grades I-X. See the statements of requirements in social sciences, natural sciences and academic teaching major.

[4] As in the case of an applicant for a degree the electives must be so chosen that the student will have a total of 12 units in Social Sciences and 12 units in Natural Sciences. The electives must include 6 units in Biology unless this subject was taken in high school. The electives in the Junior year must include a minimum of four units in upper division courses in liberal arts.

* Students must so pattern their courses that they will include an "academic teaching major" and an "academic teaching minor" (see page 19). They must also satisfy the requirements for social sciences, natural sciences and English (see "Degree Requirements," page 18). By exercising care in patterning the electives in the course it is possible for a student to complete this course and satisfy the requirements for an academic teaching major.

Upper Division

	Units
Practice Teaching (four units in special field) Ed. CXVI	9
Elementary Curriculum, Ed. CIV	3
Principles of Secondary Education, Ed. CXXI	2
Art in the Junior High School, Ed. CXIX	2
U. S. Constitution, Pol. Sci. 101	2
Elective in Education	39
Electives*	39
	60

Summary

Art major for the special credential	50
Academic Teaching Major (not art or educational)	24
Academic Teaching Minor (not art or education)	12
Education	24
Electives*	14
	124

PHYSICAL EDUCATION

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

Freshman Year

First Semester—	Units
Introduction to Social Science	3
Social Ethics	0
English 4A or 52A or 60	3
Physical Education 1A (men); 52A (women)	½
Natural Science:	
Biology 10A (unless taken in High School); or Zoology 1A	3 or 4
Geography 1A	
Hist., Pol. Sci., Econ., Math. or Foreign Language	2
Must pass a prescribed Red Cross Swimming Test in Freshman Year	3
	½
	15 or 16

Second Semester—	
English	3
Physical Education 1B (men); 52B (women)	½
Natural Science: Biology 10B or Zoology 1B	3 or 4
Social Science: Geography 2A	
History, Pol. Sci., Econ., Math. or Foreign Language	2
Hygiene 1 (men); Hygiene 2 (women)	3
Academic teaching major or electives*	1 or 2
	3 or 2
	15½ or 16½

Sophomore Year

First Semester—	
Psychology 2A	3
Music 2A or Speech Arts 1A	2 or 3
Physical Education 52 (women); 1C (men)	½
Administration, Phys. Ed. 53 or 54 (men)	2
Physiology 100	4
Academic teaching major or electives*	4
Acceptable proficiency in tennis must be acquired in Sophomore Year. (Judged on playing skill and knowledge of teaching technique.)	½
	16 or 17

Second Semester—	
Introductory Principles of Education, Ed. I	3
Anthropology	3
Psychology 2C	3
Physical Education 1D (men); 52D (women)	½
Academic teaching major or electives*	7
	16½

Junior Year

First Semester—	Units
Educational Psychology, Ed. CXXX	3
Elementary School Curriculum, Ed. CIV	3
Applied Anatomy, Phys. Ed. 155	2
Stunts and Tumbling (women), Phys. Ed. CLVIII	½
U. S. Constitution, Pol. Sci. 101 or History 171B (unless Political Science 1B has been taken)	2 or 3
Sports and Athletics	½
Academic teaching major or electives*	5 or 4
	16

Second Semester—	
Practice Teaching, Ed. CXVI	3
Educational Measurements, Ed. CVIII	3
Health Education, Phys. Ed. 151	2
Physical Education 101	1
Zoology 100 or Zoology 114A or Zoology 121	3
Formalized Activities, Phys. Ed. CLX	2
Folk Dancing (women), Phys. Ed. CLXI	2
Self Testing Activities (men), Phys. Ed. CLXII	1
Gymnastic Stunts (men), Phys. Ed. CLXIII	1
Sports and Athletics	½
	16½

Senior Year

First Semester—	
Physical Education Practice Teaching; 3 units. Also teaching in academic major if desired; 3 units. Ed. CXVI	3 or 6
Secondary Education, Ed. CXXI	2
Sports Methods (women), Phys. Ed. CLVII	2
Coaching Methods (men), Phys. Ed. CLVI	2
Character Dancing, Clogging and Interpretative Dancing, Phys. Ed. CLXIV	2
Sports and Athletics	½
Academic teaching major or electives*	7 or 4
	16½

Second Semester—	
Physical Education Practice Teaching, Ed. CXVI	3
Principles of Physical Education CLXXII	2
Physical Education Tests and Measurements CLXXIII	2
Coaching Methods (men), Phys. Ed. CLVI A-B	2
Sports Methods (women), Phys. Ed. CLVII A-B	2
Community Recreation (women), Phys. Ed. CLXX	2
Camp Craft (women), Phys. Ed. CLXXIV	2
Community Recreation (men), Phys. Ed. CLXXI	2
Technique of Officiating (men), Phys. Ed. CLXVI	1
Sports and Athletics	½
Academic teaching major or electives*	3
	16½ or 15½

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

Letters and Science (Presecondary) Curriculum

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

The junior certificate will be granted on the completion of 64 units of college work and the degree on the completion of 124 units. Certain requirements of the junior certificate may be met by courses taken in the high school. No high school course, however, can be used to reduce the amount of college work required for the junior certificate or for the degree.

Lower Division

Freshman Year

	Units Sem. I	Units Sem. II
Social Ethics	—	
Orientation	1	
Physical Education	½	½
Hygiene	1 or 2	
English[1]	3	3
Foreign Language[2] or electives	3–5	3–5
Social Science[3]	3	3
Natural Science[4] or electives[5]	2–5	5–7
	16½	16½

Sophomore Year

Physical Education	½	½
Foreign Language[2]	3	3
Additional year course[6]	3	3
Social Science[3]	3	3
Natural Science[4] or electives	3	3
Electives[5]	3	3
	15½	15½

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

[2] 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.

[3] To be chosen from the following: Anthropology 1A-1B, Commercial Law 18A–18B, *Economics 1A–1B, Economic History 11, *Geography 1–2, *History 4A–4B, *5A–5B, *8A–8B, *Political Science 1A–1B, Psychology 2A, 2B, 2C, Sociology 50.

[4] Twelve units required

A maximum of 6 units of the following high school laboratory courses may be used to meet the natural science requirement when these courses are offered in the third or fourth year of the high school. Each year of the high school course will be counted in satisfaction of 3 units of the requirement: Physics,* Chemistry,* Botany, Biology, Physiology, Zoology.

A minimum of 6 units must be chosen from the following: Astronomy 1, 11, Biology 10A–10B,* Botany 2A,* 2B,* 4, Chemistry 1A*–1B,* 6A*–6B,* 8–9,* Geology 1A, Physics 2A–2B, 3A–3B,* 1A–1B,* 1C–1D,* Zoology 1A,* 1B,* 100.*

[5] Electives should be chosen to prepare for the requirements of the Major Department as given in the descriptive list of courses in this catalog.

[6] In addition to the minimum requirement of 15 units in not more than two languages, of 6 units in English and of year courses in high school elementary algebra and plane geometry, 6 units must be chosen from one of the following groups:

Modern foreign language: Any two consecutive college courses.
Latin: Two years of high school courses in Latin.
English: 1A and 1B.
Mathematics: 1A and 1B or 3A and 3B or 3A and 6.

* At least one of the courses marked with an asterisk must be chosen to meet the social science requirement and the natural science requirement, respectively.

Upper Division

(See page 17 for additional requirements.)

The courses prescribed in the lower division should be completed before the junior year. The removal of deficiencies in the junior year may prolong the college course beyond the normal period of time.

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

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

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

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

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

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

Ed. I, Introductory Principles (lower division elective); Ed. CI., Principles of Junior High School Education or Ed. CVI, Principles of Elementary Education; Ed. CVII, History of Education; Ed. CVIII, Educational Measurements; Ed. CIX, Educational Administration and Supervision; Ed. CXXX, Educational Psychology; Ed. CXL, Elementary Statistics; Psychology 2C, Genetic Psychology.

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

Agriculture: Home Floriculture 26; Nature Study 20.

Economics: Typewriting 1A-1B, 2A; Stenography 1A-1B, 2A; Office Methods 3A; Business Mathematics A.

Industrial Arts: Woodwork 1A-1B; Painting and Finishing 2; Wood Turning 5; Cabinet Work 5; Upholstering 6; Concrete Work 7; Sheet Metal 9; Pipe Fitting 10; Automobile Mechanics 13; Elementary Industrial Arts 61A and 61B; Auto Repair 116; Advanced Cabinet Work 117.

English: Applied Journalism 53A-53B.
Music: Choral and instrumental organizations.
Physical Education: 53 or 54; 151.
For Women: 52A, 52B, 52C or 52, 52D.
For Men: 1A, 1B, 1C, 1D and all sport activities.

PRE-PROFESSIONAL CURRICULA

Pre-Legal Curriculum

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

b) Electives recommended:
History 4A–4B, 6 units.
Economics 1A–1B, 6 units.
Political Science, 1A–1B, 6 units.
Public Speaking, 1A–1B, 6 units.
Sociology 50, 3 units.
Psychology 2A–2B, 6 units.
Accounting, 14A–14B, 8 units.
Business Law 18A–18B, 6 units.
English 52A–52B.

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

Pre-Medical Curriculum

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

Freshman Year

	Units Sem. I	Units Sem. II
Social Ethics	--	--
Orientation	1	--
Physical Education	½	½
Hygiene	1 or 2	
Foreign Language[1] or electives	3–5	3–5
Chemistry 1A-1B	5	5
Social Science[2]	3	3
Electives	0 or 3	3 or 5
	16½	16½

Sophomore Year

Physical Education	½	½
Foreign Language[1] or Chemistry 6A-6B[3]	3	3
English 1A-1B	3	3
Additional year-course[4]	3	3
Zoology 1A-1B	4	4
Social Science[2]	3	3
	16½	16½

Junior Year

Chemistry 8–9	3	3
Physics 2A-2B and 3A-3B[5]	4	4
Zoology 100	3	--
Electives[6]	6	8
	15	15

Pre-Dental Curricula

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

	Units Sem. I	Units Sem. II
Social Ethics	--	--
Orientation	1	--
Physical Education	½	½
English	3	3
Foreign Language	3 or 5	3 or 5
Chemistry 1A-1B	5	5
Zoology 1A-1B or Biology 10A-10B	4 or 3	4 or 3
Mechanical Drawing		1
	16½ or 17½	16½ or 17½

[1] The foreign language requirement of 15 units in not more than two languages must include a reading knowledge of German or French (3 years of high school German or French or 10 units of college German or French). Each year of a high school course in a foreign language may be applied to reduce the language requirement by 3 units without, however, reducing the number of units required for the Junior Certificate (64).

[2] Twelve units required: See Letters and Science curriculum.

[3] Chemistry 6A-6B should be taken either in the sophomore or junior year to satisfy the admission requirements of certain medical schools.

[4] Six additional units required. See Letters and Science curriculum.

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

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

A six-year curriculum, the fisrt two years' work to be taken in the Letters and Science curriculum in conformity with the requirements for the Junior Certificate and the remainder in a college of dentistry.

Freshman Year

	Units Sem. I	Units Sem. II
Social Ethics	--	--
Orientation	1	--
Physical Education	½	½
Hygiene[1]	1 or 2	
Chemistry 1A-1B	5	5
Zoology 1-A-1B[2] or Physics 2A-2B[2]	4 or 3	4 or 3
Foreign Language[3] or electives	3–5	3–5
Social Science[4]	3	3
	16½ or 17½	16½ or 17½

Sophomore Year

Physical Education	½	½
English 1A-1B	3	3
Chemistry 8–9	3	3
Foreign Language[3] or Zoology 100[2]	3	--
Foreign Language[3] or Elective	--	3
Additional year-course[5]	3	3
Social Science[4]	3	3
	15½	15½

[1] Hygiene should be taken the second semester if a five-unit language course is taken in the first semester.

[2] The student who has not earned credit for at least two years of a high school course in a foreign language will find it necessary to elect Physics 2A-2B instead of Zoology 1A-1B and 100 to satisfy the Junior Certificate requirements by the end of his sophomore year.

[3] At least 15 units in not more than two languages. A high school course may be applied toward the satisfaction of the foreign language requirement, each year of the course reducing the requirement by 3 units without, however, reducing the number of units required for the Junior Certificate (64).

[4] Twelve units required. See Letters and Science curriculum.

[5] Six additional units required. See Letters and Science curriculum.

SOCIAL SERVICE CURRICULUM

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

b) Additional requirements:
- Economics 1A–1B, 6 units.
- Biology 10A–10B, 6 units; or Zoology 1A, 4 units.
- Anthropology 1A–1B, 4 units.
- Social Economics 50, 3 units.
- Political Science 1A–1B, 6 units.
- History 4A–4B, or 5A–5B, or 8A–8B, 6 units.
- Psychology 2A, 3 units.

c) Third year: Recommended electives.
- Social Economics 150, Science of Society, 3 units.
- Social Economics 155, Social Research, 3 units.
- Economics 101, History of Economic Thought, 3 units.
- Economics 140, Elementary Statistics, 3 units.
- Zoology 114A, Genetics, 2 units.
- Education CVIII, Educational Measurements, 3 units.
- Physical Education CLXX or CLXXI, Community Recreation, 2 units.
- Physical Education 155, Applied Anatomy, 2 units.
- History 171A–171B, Rise of American Nation, 6 units.
- Political Science 113, American Political Ideals, 3 units.

COMMERCE CURRICULUM

Freshman Year

	Units Sem. I	Units Sem. II
Social Ethics	--	--
Orientation	1	--
Physical Education	½	½
Hygiene	1 or 2	
English 1A–1B[1] or Speech Arts 1A–1B[1]	3	3
Foreign Language[2]	5	5
History 4A–4B[1], 8A–8B[1] or Political Science 1A–1B[1]	3	3
Natural Science[3] or electives	2 or 3	5
	16½	16½

Sophomore Year	Units Sem. I	Units Sem. II
Physical Education	½	½
Geography 1 and 2[1]	3	3
Natural Science[3] or electives	3	3
Mathematics 2	3	--
Economics 11 or elective	--	3
Economics 1A–1B	3	3
Economics 14A–14B	3	3
	15½	15½
Junior Year		
Psychology 2A[4]	3	--
Economics 18A–18B[4]	3	3
Economics 140	3	--
Additional upper division Economics	3	6
Electives	3	6
	15	15

MECHANICAL, ELECTRICAL, CIVIL AND MINING ENGINEERING CURRICULA

First Year	Units Sem. I	Units Sem. II
Mathematics 3A-3B	3	3
Physics 1A-1B	3	3
Chemistry 1A-1B	5	5
Civil Engineering 1A-1B	3	3
Orientation	1	--
Hygiene	1	--
Social Ethics	--	--
Physical Education	½	½
Elective	--	2
	16½	16½

Second Year

Mechanical and Electrical Engineering

Mathematics 4A-4B	3	3
Physics 1C-1D	3	3
Descriptive Geometry 3D	3	--
Machine Drawing and Design 6A	1	4
Applied Mechanics 11	3	--
Electrical Engineering 12	--	3
Pattern Making 8A-8B	2	2
Physical Education	½	½
English	3	3
	18½	18½

Civil Engineering

Civil Engineering 3 (summer session)	(3)	
Mathematics 4A-4B	3	3
Physics 1C-1D	3	3
Descriptive Geometry 3D	3	--
Geology 1A	--	3
English	3	3
Physical Education	½	½
Railroad and Irrigation:		
Applied Mechanics 11	3	--
Electives	3	6
	18½	18½
Sanitary and Municipal:		
Chemistry 8–9	3	3
Chemistry 6A–6B	3	3
	18½	18½

[1] May be taken either in the freshman or sophomore year.
[2] Two or three years of a high school course in a foreign language may be applied toward the satisfaction of the language requirement in part or in whole, each year reducing the requirement by 3 units without, however, reducing the number of units required for the Junior Certificate (64).
[3] Twelve units required for the Junior Certificate. See natural science requirement in the Letters and Science curriculum.
[4] May be taken either in the sophomore or junior year.

Mining, Economic Geology and Petroleum Engineering

Second Year	Units Sem. I	Units Sem. II
Civil Engineering (summer session)	(3)	
Mathematics 4A-4B	3	3
Physics 1A-1B	3	3
Geology 1A	--	3
Mineralogy 9	--	3
Descriptive Geometry 3D	3	--
Applied Mechanics 11	3	--
Electrical Engineering 12	--	3
Physical Education	½	½
English	3	--
Elective	3	3
	18½	18½
Economic Geology Major:		
Chemistry 6A-6B	3	3
	18½	18½
Petroleum Engineering Major:		
Organic Chemistry 8-9	3	3
	18½	18½

CURRICULUM IN INDUSTRIAL AND ENGINEERING CHEMISTRY

First Year	Units Sem. I	Units Sem. II
Mathematics 3A-3B	3	3
Physics 1A-1B	3	3
Chemistry 1A-1B	5	5
German A-B	5	5
Orientation	1	--
Hygiene 1	--	1
Physical Education	½	½
Social Ethics	--	--
	17½	17½

Second Year

Mathematics 4A-4B	3	3
Physics 1C-1D	3	3
Chemistry 6A-6B	3	3
Chemistry 8–9	3	3
English	3	3
History or Political Science or Economics	3	3
Physical Education	½	½
	18½	18½

PRE-AGRICULTURAL CURRICULUM

First Year	Units Sem. I	Units Sem. II
Social Ethics	--	--
Orientation	1	--
Hygiene 1	--	1
Physical Education	½	½
Botany 2A–2B	4	4
Chemistry 1A–1B	5	5
Physics 2A–2B	3	3
English	3	3
	16½	16½

Second Year

Physical Education	½	½
Chemistry 6A–6B	3	3
Chemistry 8–9	3	3
Zoology 1A–1B	4	4
Economics 1A–1B	3	3
Surveying 1A–1B	3	3
	16½	16½

CURRICULA IN ACCOUNTANCY AND SECRETARIAL TRAINING

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

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

Accountancy

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

First Year

	Units Sem. I	Units Sem. II
Accounting 14A–14B	4	3
Typewriting 1A–1B	4	4
Business Mathematics A	--	--
Orientation	1	--
Hygiene	--	1
Physical Education	½	½
Social Ethics	--	--
English Composition	3	3
Electives	3	5
	15½	16½

Second Year

Advanced Accounting 60A-60B	3	3
Commercial Law 18A–18B	3	3
Economics 1A–1B	3	3
Psychology 2A–2B or Electives	3	3
Office Methods 3A	--	3
Physical Education	½	½
Economic History 11 or Electives	3	--
	15½	15½

Secretarial Training

Two-Year Course (leading to Secretarial Certificate).

First Year

	Units Sem. I	Units Sem. II
Shorthand 5A–5B	5	5
Typewriting 1A–1B	4	4
Hygiene 2	2	--
Physical Education	½	½
Social Ethics	--	--
Orientation	1	--
English Composition	3	3
Electives	--	3
	15½	15½

Second Year

Commercial Law 18A–18B	3	3
Office Methods 3A	--	3
Economics 1A–1B	3	3
Accounting 14A-14B	4	3
Psychology 2A–2B or Electives	3	3
Physical Education	½	½
Economic History 11 or Electives	3	--
Business Mathematics A	--	--
	16½	15½

Accountancy and Secretarial Training

First Year

	Units Sem. I	Units Sem. II
Accounting 14A–14B	4	3
English Composition	3	3
Typewriting 1A–1B	4	4
Business Mathematics A	--	--
Orientation	1	--
Hygiene	--	1
Physical Education	½	½
Social Ethics	--	--
Electives	3	5
	15½	16½

Second Year

Advanced Accounting 160A–160B	3	3
Commercial Law 18A–18B	3	3
Office Methods 3A	--	3
Economics 1A–1B	3	3
Shorthand 5A–5B	5	5
Physical Education	½	½
Electives	2	--
	16½	17½

COURSES OF INSTRUCTION

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

Courses numbered from 1 to 99 and I to XCIX are freshman or sophomore (lower division) courses; those numbered from 100 to 199 and C to CXCIX are junior or senior (upper division) courses, available for sophomores only by special arrangement.

AGRICULTURE

26. Home Floriculture — SKILLING

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

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

Two units; either semester.

20. Nature Study — SKILLING

The course aims to show the student what material, selected from the various sciences, may be woven into a nature study course suitable for children, with special reference to school and home gardening and agriculture. The subject matter covered is partly drawn from the physical sciences, astronomy, physics, etc. (for the upper grades), and partly from life studies of the plant and animal world (for lower grades).

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

Two units; either semester.

ANTHROPOLOGY

Preparation for the Major in Anthropology (lower division)—Anthropology 50.

Anthropology 50. Man's Evolutionary History — BRYSON

Prehistoric evidences of man. Classification of races. Primitive society. Prerequisite: Sophomore standing.

Three units; first semester.

ASTRONOMY

Preparation for the Major in Astronomy (lower division)—Astronomy 1, Plane Trigonometry, Mathematics 3A–3B, 5A–5B, Physics 2A–2B and 3A–3B or 1A–1B and 1C–1D, 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 Alvin Clarke telescope is used for observation. Also a good selection of lantern slides is used to illustrate various topics. Prerequisites: Elementary Algebra and Plane Geometry.

Three units; either semester.

11. Modern Astronomy — SKILLING

Stars and nebulae. A study of modern methods and instruments used in the observatory. Theory of matter as it applies to such studies. Prerequisites: Astronomy 1 and a knowledge of physics.

Two units; one semester.

BIOLOGICAL SCIENCES

(Botany, Zoology, Biology, Physiology)

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

Preparation for Major or Minor: Students who expect to make Botany or Zoology their major or minor subject should not take Biology 10A–10B or 10C but should register for courses that are prerequisites for upper division courses in the department. Recommended courses in other departments are high school Chemistry or Chemistry 1A, 1B, 8, and 9, French, German, physics, geography 1, geology, and anthropology.

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

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

Fees: A fee of $2 is required in all laboratory courses in this department. The fee covers the cost of materials used. For breakage and extra material in addition to the estimated need, an extra charge must be made.

Lower Division Courses

BIOLOGY

10A–10B. General Biology — M. E. JOHNSON

The fundamentals of plant and animal biology, with elementary work in heredity. The laboratory work supplements the lectures and includes a study of living and preserved material. The aim of the course is to acquaint the student with the basic facts of biology. It is designed not only to give the general student an acquaintance with living things and their relationships, but also to furnish the prospective teacher with an adequate background for nature study teaching. Two lectures and one three-hour laboratory period per week. Designed for those who do not expect to specialize in Zoology or Botany, but not open for credit to students who have taken biological science in the high school nor to those who have taken Biology 10C, Zoology 1A, or Botany 2A. Students who have taken 10A-10B may elect Zoology 1A or Botany 2A for credit.

Three units: both semesters.

10C. General Biology — M. E. JOHNSON, DALE

Prerequisite: A high school course in Physiology, Biology, Botany, or Zoology.

An outline of the main facts and principles of biology and their bearing upon human life. Lectures, demonstrations, and conferences. Designed for students who do not expect to specialize in botany or zoology. Not open for credit to students who have taken Biology 10A–10B, Zoology 1A, or Botany 2B, but students who have taken 10C may elect Zoology 1A or Botany 2A for credit. Two lectures and one conference hour per week.

Three units; either semester.

BOTANY

2A. General Botany — HARVEY

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

Four units; first semester.

2B. General Botany — HARVEY

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

Four units: second semester.

4. California Plants — HARVEY

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

Three units; second semester.

ZOOLOGY

1A. General Zoology — HARWOOD

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

Four units; first semester.

1B. General Zoology — HARWOOD

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

Four units; second semester.

Upper Division Courses

BOTANY

102. Plant Geography — HARVEY

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

Two units; first semester.

ZOOLOGY

100. Embryology — M. E. JOHNSON

The development of vertebrates as illustrated by the frog, chick, and pig. Six hours of laboratory and one hour of lecture per week. Prerequisite: Zoology 1B or Biology 10B.

Three units; second semester.

112. Invertebrate Zoology — M. E. JOHNSON

The structure, classification, habits, and life histories of the invertebrates of the region, particularly of the marine fauna. One hour of lecture and six hours of laboratory per week. Prerequisite: Biology 10A-10B or Zoology 1A.

Three units; first semester. (Not offered in 1929–30.)

114A. Genetics — DALE

A study of the laws of inheritance in plants and animals. Two lectures per week.

Two units; second semester.

114B. Evolution — DALE

A study of the development of theories of evolution.

Two units, two lectures per week; first semester.

121. Entomology — HARWOOD

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

Three units; second semester.

113A. Taxonomy and Natural History of the Vertebrates. — HARWOOD

One hour of lecture and six hours of laboratory per week. Frequent field trips and the identification of preserved material. Prerequisites Zoology 1B or Biology 10B.

Three units; first semester.

113B. Ornithology — DALE

The study and identification of birds, especially those of the Pacific Coast and the San Diego region. Six hours per week of lectures, laboratory, or field excursions. Prerequisite: Zoology 1A-1B, Biology 10A-10B, or 10C.

Three units; second semester.

PHYSIOLOGY

100. Physiology of Exercise — DALE

A study of the mechanism of the human body, with special reference to the physiology of the motor system. Lectures, demonstration experiments, class discussions, and reports. Prerequisite: Zoology 1B or Biology 10B.

Two units; first semester. (Not offered in 1929–30.)

Teacher-Training Courses

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

CHEMISTRY

Preparation for the Major (lower division)—Chemistry 1A-1B, with a grade of C or better. Chemistry 6A-6B, Physics 2A-2B or 1A-1B, Mathematics C and 3A-3B, or their equivalent, and a reading knowledge of German. Recommended: Physics 3A–3B or 1C–1D, Mathematics 4A–4B.

The Major (upper division)—All units in excess of fourteen are counted as upper division units when taken in the junior or senior year. The minimum requirement for the major must include Chemistry 8–9, 101–102 and 123–124. The organization of the course for the major student must follow a definite plan approved by the department.

Lower Division Courses

1A–1B. General Chemistry — PIERCE

The general principles, laws of chemical combination and a description of the elements and their important compounds. Two lectures, one quiz and two laboratory sessions per week. The second semester laboratory is Qualitative Analysis throughout. Prerequisites: High School Chemistry or High School Physics and Trigonometry.

Five units; both semesters.

6AA. Qualitative Analysis — PIERCE

A study of qualitative separations and theories as applied not only to solutions but to ores, slags, alloys, and solid salts. One hour lecture and quiz, three laboratory periods. Prerequisite: Chemistry 1A–1B.

Four units; first semester.

6A–6B. Introductory Quantitative Analysis — PIERCE

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

Three units; both semesters.

8–9. Organic Chemistry — GILKEY

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

Three units; both semesters.

Upper Division Courses

101–102. Advanced Inorganic Chemistry — PIERCE

The course treats of the laws and theories of elementary work from the viewpoint of physical chemistry. The laboratory work covers such typical items as gas laws, mol weights, laws of combination, ionization, equilibria (homogeneous, heterogeneous and complex) and electrochemistry. Two lectures, two laboratory periods per week. Prerequisites: 1A–1B, 6A–6B, 8–9.

Four units; both semesters.

110. Industrial Chemistry — ROBINSON

A course of lectures on the application of chemistry to the arts. The most important industries are embraced and principles of evaporation, distillation, sublimitation, filtration, crystallization, calcination, refrigeration, use of fuels and water purification are discussed. Prerequisites: 6B-9.

Three units: second semester.

123-124. Organic Preparations — PIERCE

A laboratory course illustrating some of the more important synthetic methods of organic chemistry. A reading knowledge of German is desirable. Laboratory and conferences. Prerequisite: 8–9. Hours to be arranged.

Two to five units: both semesters.

125. History of Chemistry — PIERCE

Development from time of Geber on reading, report and seminar basis. Considers both experimental advances and production of the experimenters by the Ostwalds, Remsen, Emil Fischer and Victor Meyer. Prerequisites: 101–102.

Two units; second semester.

Teacher-Training Course

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

ECONOMICS

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

Lower Division Courses

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 citizens to the political and economic problems of our time. Lectures, discussions, quizzes, and collateral reading. Not open to entering freshmen except by special arrangement.

Three units; both semesters.

11. Economic History of the United States — WRIGHT

A comprehensive survey of American economic development and of national legislation in the field of industry.

Three units; second semester.

14A–14B. Accounting — 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.

Three or four units; both semesters.

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; both semesters.

Upper Division Courses

100. Economic Theory

Advanced study of demand and supply, production and distribution, and economic welfare. Prerequisite: Economics 1A–1B.

Three units; one semester.

101. History of Economic Thought

The chief contributors to economic theory from the time of Adam Smith to the present day. Prerequisite: Economics 1A–1B.

Three units; one semester.

121. Business Organization

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

Three units; one semester.

125. Advertising and Salesmanship

Principles and problems.

Three units; one semester.

131. Public Finance

Principles and practice of taxation, public expenditures, and financial administration.

Three units; one semester.

134. Investments

Investment analysis and a study of the investment of personal savings.

Two units; one semester.

135. Money and Banking

The elements of monetary theory. History and principles of banking with special reference to the banking system of the United States. Prerequisite: Economics 1A–1B.

Three units; one semester.

140. Statistical Methods

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

Two units; both semesters.

141. Economic Geography

(See Geography.)

160A–160B. Advanced Accounting — WRIGHT, EVERTS

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 accounting, etc. Under practical accounting an endeavor is made to design, construct, and operate sets of books to meet the needs of different conditions and kinds of businesses. Six hours lecture and laboratory.

Three units; both semesters.

Social Economics

Lower Division Courses

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.

2A. Home Making — COLDWELL

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 reference reading and theme writing required. Lectures, class discussions, recitations.

Two units; either semester.

10. Introduction to Social Science — BRYSON, SMOOR

A study of man's descent, race, social organization, ideals of conduct, and civilization. Modern problems.

Three units; either semester.

50. General Sociology. — KELLY

The nature and organization of human group activitity is studied. This includes a study of the cultural heritage and its relation to public opinion and social change. Previous preparation in Biology and Psychology is recommended.

Three units; either semester.

Upper Division Courses

145. Social Psychology.

(See Psychology.)

150. Science of Society — PANUNZIO

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

Three units; first semester.

151 - Social Problems.

155. Social Research — PANUNZIO

A course in the theory and practice of social science research, open by permission of the instructor to such juniors and seniors who in Social Economics 150 have shown capacity to undertake research and an interest in some specific field. The student will select a social or economic topic for investigation, will conduct researches, make frequent reports of progress and have opportunity to cooperate with the Sociological Laboratory of Neighborhood House. The course is intended for prospective social workers, for future teachers interested in the socialized school and for those expecting to enter the social science field. The group will meet once a week for reports and discussion of principles and the practice of research and social work.

Three units; second semester.

Secretarial Training

1A–1B. Typewriting — AMSDEN

A rapid development of a thorough command of a keyboard by the touch method. The acquisition of speed and the artistic arrangement of typewritten material with special reference to commercial forms, tabulation and billing; specifications, legal forms and preparation of manuscripts; transcription, mimeographing, etc. Ordinarily no credit is given for this course except in the curricula in accountancy and secretarial training. Ten hours lecture and laboratory practice.

Four units; both semesters.

2A. Typewriting — AMSDEN

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

Two units; first semester.

5A–5B. Stenography — AMSDEN

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; both semesters.

6A. Stenography

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

Three units; second semester.

3A. Office Methods and Appliances. — WRIGHT

Practice and principles of office management, including organization, arrangement and operation. Study and use of modern office appliances, such as the multigraph, mineograph, 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, substract 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.

No credit; first semester.

EDUCATION

1. Education—Introductory Principles and Technique — AULT

This is the first required course in the study of education and has as its purpose the orienting of the mind of the student toward education and teaching. A preliminary survey of the field is made and of the theories and general principles applying to education in a modern democratic society. It also functions as a course in vocational guidance in that it seeks to acquaint the student with the qualities needed for success in teaching and helps him to appraise his own possibilities.

In the survey of this field of public education a study is also made of public and quasi public organizations which more or less directly participate in the program of education. Especial note is made of the Parent-Teacher Asociation and its functions.

Open only to students who have passed the Fundamentals Test.

Three units; either semester.

Upper Division Courses

cI. Principles of Junior High School Education — HARDY, NIDA

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.

This course also functions as a "Comprehensive Examination" of applicants for the college degree and diploma which automatically become teaching credentials in California. Seminars are organized for reviewing and integrating the leading contributions to educational theory and practice from the fields of biology (see

Biology 10A–10B), Psychology (2A–2C), Sociology (10A), principles and technique of teaching (I), primary school curriculum (CXXVIII) (for those who also seek the general elementary credential), educational measurements (CVIII), and practice teaching (CXVI). Students who take this course are exempted from course CVI.

Three units; one semester.

CII. Education for Citizenship — NIDA

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

Two units; either semester.

CIII. Public Education in California — HARDY

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

Two units; either semester.

CIV. Elementary School Curriculum — BROOM, BELL

A study of the materials and activities of the elementary school and of accepted techniques in teaching. A summary and evaluation is made of the results of scientific investigations in this field. Special emphasis is placed on the teaching of English. Open only to students who have passed the Fundamentals Test.

Three units; either semester.

CV. Intelligence Testing — 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 or three units; one semester.

CVI. Principles of Elementary Education — JOHNSON

This course is designed as a culmination of the studies of education and its procedure. It is a study of the biological, psychological and social principles underlying modern education, in connection with the demands of modern society in a complex social, economic and scientific world, with a view to the formulation of a working philosophy for the educative process.

As in course CI, Principles of Junior High School Education, this course also functions as a "Comprehensive Examination" of applicants for the Teachers College degree with the same arrangements for seminar reviews and tests. Students who take this course must be applicants for the general elementary credential only since those who are applicants for the junior high school credential or both the junior high school and elementary credentials will take course CI instead of this course.

Three units; one semester.

CVII. History of Education — AULT, KOTTER

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.

CVIII. Educational Measurements — BROOM

This course consists of a brief survey of the history of scientific measurement in the elementary field, and a study of the nature of intelligence tests, 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. Open only to students who have passed the Fundamentals Test.

Three units; either semester.

CIX. Educational Administration and Supervision JOHNSON

A survey of the systems of organization, classification and promotion of pupils, and such problems as finance, the teaching staff, building standards, extra-curricular activities, etc.

Two units; one semester.

CX. Educational Organization and Supervision JOHNSON

A study of types of supervision and methods of evaluating and improving teaching.

Two units; one semester.

CXVI. Practice Teaching AULT AND SUPERVISORS

Systematic observation, participation and actual teaching under competent supervision in the Training School and in the city schools of San Diego. The general plan for a student who has not had teaching experience is to take one period of practice teaching daily for a semester and two periods daily for another. In some cases the second assignment is for a half day. Only in case of an extreme emergency will a student who has not had experience in teaching be permitted to satisfy all practice teaching requirements in a single semester. It is planned to distribute the practice teaching assignments so that the student will have some experience in both upper and lower grades, with the emphasis on the grade or grades in which the student is particularly interested. Deviation from this plan is very liable to result in unsatisfactory training and is tolerated only when unavoidable.

One period of teaching daily for a semester is usually credited with two or three units and two periods with four to six units, depending upon the character of the assignment and the work. When more time is needed the student is assigned to additional practice. The practice teaching requirements are usually reduced for those who have had successful teaching experience. The usual requirements for inexperienced teachers is nine units.

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

CXVIII. Class Management CORBETT

A discussion of the problems arising in connection with schoolroom discipline; methods of securing a wholesome school "spirit" and the application of civic principles to school life.

Two units; one semester.

CXXI. Principles of Secondary Education HARDY

This course deals with the principles of educational science that should underlie the organization, administration and curriculum of the secondary school. 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.

CXXVIII. Primary School Curriculum HAMMACK

A study of the activities of the first three grades of the elementary school. Special emphasis is placed upon beginning reading and frequent demonstration lessons are conducted.

Open only to students who have passed the Fundamentals Test.

Three units; either semester.

CXXX. Educational Psychology BROOM

This is a study of the learning process and includes such topics as laws and types of learning, curves of learning and of forgetting, economy of learning, amount, rate and limits of improvement, spread of improvement or transfer and experimental studies in learning. Prerequisite: Psychology 2A and 2C.

CXL. Elementary Statistics BROOM

An introductory study of the statistical measures and devices most commonly used in connection with educational work. Data will be taken from typical school conditions. Opportunity will be given to obtain practice in the use of calculating machines and other aids to computation.

Three units; one semester.

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.

Lower Division Courses

XVII. Music in the Elementary School D. SMITH

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 1A, Music Fundamentals.

Two units; either semester.

XIX. Art in the Elementary School BENTON

Prerequisite: Art 6A 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: either semester.

XXII. Geography Materials for the Elementary School CLARK

This course aims to familiarize students with geography texts, geographical readers and other supplementary books, magazines valuable in the work, the different kinds of wall and desk maps, and also with concrete geographical materials such as pictures and exhibits. Prerequisite: Geography 1 or 1A.

Two units: second semester.

Upper Division Courses

CXXVI. Children's Literature CORBETT

A study of the principles of selection underlying the choice of literature for the elementary school, with special emphasis on the social and educational status of the child. A study of source material and its classification. A critical examination and evaluation of new literary materials for children's use and a discussion of the best illustrators of books for children. Practice in developing technique in story telling through practical work in Story Hours.

Two units; both semesters.

CXXIX. Mathematics RICHARDS

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

Two units; either semester.

COURSES FOR SECONDARY SCHOOL TEACHERS

Upper Division Courses

Organization and Administration (see Education CIX and CX)

CXI. English BAGLEY

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

Two units; one semester.

CXII. Mathematics RICHARDS

The subject matter, management of it and methods of teaching it in a junior high school curriculum in general mathematics, make up the principal topics of this course. Specific problems discovered include the application of arithmetic in current social and business life, intuitive geometry, graphic representation and the phase 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.

CXIII. 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 grade. Lectures, papers, readings and observations are included.

Two units; one semester.

CXIV. Social Science

This course for prospective junior high school teachers attempts to meet the problem of the teaching of some of the elementary facts and principles of 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.

CXV. History LESLEY

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

CXVII. Commercial Education in the Secondary School WRIGHT

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

CXIX. Art in the Junior High School BENTON

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

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

Courses in the content, methods, field work, textbooks, laboratory work, equipment, and reference reading for Juuior High School Science. Prerequisite: 18 units of college science.

CXX–A. Biology JOHNSON

Prerequisite: Eighteen units of college science including Biology 10A-10B or Zoology 1A–1B and Botany 2A–2B.
Two units: first semester.

CXX–B. Physical Sciences SKILLING

Prerequisite: Eighteen units of college science including Physics 2A-2B or equivalent and high school or college chemistry.
Two units: second semester.

CXX–C. Chemistry PIERCE

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

CXXII. Organization of Industrial Arts SCUDDER

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

CXXIII. Teaching Industrial Arts SCUDDER

Prerequisite: Thirty units in Industrial Arts. Five hours per week.
Three units; either semester.

CXXIV. Romance Languages BROWN

A consideration of the main questions of pronounciation, 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.

CXXVII. Music in the Secondary School L. D. SMITH

Two units. (Not offered in 1929–30.)

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 STOVALL

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.

5. Engineering Drawing MCINTYRE

Drafting room practice supplemented by occasional lectures designed to meet the needs of engineering students. Lettering; orthographic projection; preparation of working drawings for engineering plants; flow sheets; graphical methods of representing engineering data. Prerequisite: Mechanical Drawing C or equivalent.
Two units; second semester: Or one unit; both semesters.

6A. Machine Drawing and Design STOVALL

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. Civil Engineering (Plane Surveying) MCINTYRE

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

2. Civil Engineering (Summer Class in Surveying) MCINTYRE

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

8A–8B. Mineralogy MCINTYRE

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

9. Mineralogy MCINTYRE

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

11. Applied Mechanics STOVALL

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.

12. Elements of Electrical Engineering STOVALL

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 1C.
Three units; second semester.

ENGLISH

Preparation for the Major (lower division)—English 1A–1B and six units from 56A–56B, 52A–52B. Recommended: A reading knowledge of German or French.
The Major in English—Required: Thirty-six units in English, of which not more than six may be in Journalism and Public Speaking and not more than nine in Composition. At least fifteen units in upper division courses must be completed in the junior and senior years.

Lower Division Courses

1A–1B. English Composition — ADAMS, BAGLEY, F. L. SMITH

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

Three units; both semesters.

4A–4B. Great Books — OUTCALT

A survey of books and bodies of literature that are significant sources or expressions of European and American culture. These include the Hebrew Bible, Greek Epic and Tragedy, Norse Eddas, and other literature of religious and communal character; and highly significant masterpieces in poetry and prose by great authors down to the nineteenth century.

Three units; both semesters.

52A–52B. Types of Literature — OUTCALT

Introduction of the study of lyrical and narrative poetry; origin and elements of poetry; typical poems.

Three units; first semester.

Introduction to the study of dramatic poetry and prose, the essay, novel and short story; elements, principles and characteristics; examples.

Three units; second semester.

56A–56B. Survey of English Literature — BAGLEY

The aim of this course is to give the student a better acquaintance with great examples of English Literature which reveal the development of thought and social ideals from the Anglo-Saxon period to the middle of the nineteenth century. The work consists of readings in the masterpieces, class discussions, occasional quizzes, and written reports.

Three units; both semesters. (Not offered in 1929–1930.)

60. Periodical Literature — BRYSON

A study of current literature, in content and form, as presented by leading periodicals, with the purpose of promoting intelligence and discrimination in reading with immediate interest. Discussions and written papers dealing with contemporary essays, fiction and poetry.

Three units; either semester.

Upper Division Courses

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; second semester.

106A–106B. Advanced English Composition. — F. L. SMITH

A laboratory course in modern prose writing. First semester, artistic narrative, with description. Second semester, the essay, the magazine article, criticism, the newspaper syndicate article. Outside readings. Prerequisite: One year of college composition.

Three units; both semesters. (Either semester may be taken first.)

117. Shakespeare — OUTCALT

Extensive reading of Shakespeare's plays, with special attention to a select group of the comedies and another of the tragedies. Lectures and special reports.

Three units; first semester.

118. Makers of Eighteenth Century Literature — BAGLEY

A study of Pope, Swift, Johnson, Goldsmith, Fielding, Burns, and their contemporaries as interpreters and teachers of their age. Open to upper division students.

Three units; first semester.

119. The Romantic Poets — ADAMS

A study of early nineteenth century poetry; the work of Wordsworth, Coleridge, Byron, Shelley, and Keats, in relation to the thought of the revolutionary period.

Three units; first semester.

121. Browning and His Contemporaries — 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. (Not offered in 1929–1930.)

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.

132. Essays on Problems of Modern Life — BRYSON

This course is limited to thirty upper division students. Papers and discussions.

Three units; second semester.

151. Medieval Literature — BAGLEY

A study of the literature of the fourteenth century, especially the verse romances, Piers Plowman, and the poetry of Chaucer. Open to upper division students.

Three units; second smester.

160. Milton and Dryden — ADAMS

Studies in the poetry of the seventeenth century, relating it to the thought and the social life of the age.

Three units; second semester.

JOURNALISM

Preparation for the Major in Journalism (lower division): History 4A–4B or 8A–8B, Political Science 1A–1B, English 52A–52B or 56A–56B; Typewriting 2A, Economics 1A-1B, Psychology 2A-2B, Journalism 51A-51B. Recommended: Social Economics 50, Anthropology 1A-1B, English 4, 60, Music 3A-3B or Art 1A-1B, Commercial Law 18A-18B.

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.

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 copyreading, proofreading, headline writing, makeup. Study of news values.

Three units; second semester.

53A–53B. English-Journalism Applied — F. L. SMITH

Credit is earned by actual work throughout a full semester as editor of "The Aztec," "El Palenque," or "Del Sudoeste"; or for specified staff work throughout one semester.

One to three units; each semester.

SPEECH ARTS

Preparation for the Major in Speech Arts (lower division); Speech Arts 1A-1B, Speech Arts 3A and 5A or Speech Arts 55A–55B.

Lower Division Courses

1A–1B. Elements of Public Speaking — JONES

Training in fundamental processes of oral expression; methods of obtaining and organizing material; outlining; principles of attention and delivery; extemporaneous speaking and open forum debating; practice in construction and delivery of type forms of speech.

Three units; both semesters.

3A. Advanced Public Speaking

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

The membership of the class is limited to twenty.

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

Two units: second semester.

5A. Argumentation and Debate

A study of the obtaining and organizing of evidence and the construction and use of the brief; study and discussion of current issues; the presentation of formal and informal debates. Attention will be given to intramural and intercollegiate debating.

Three units; first semester.

55A–55B. Play Production — JONES

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

Three units; both semesters.

55C–55D. Dramatic Interpretation — JONES

Use of speaking voice, correct diction, gesture, and pantomime. Principles of characterization and standards of acting. Rehearsals and presentation of scenes and plays.

Three units; both semesters.

Upper Division Courses

155A–155B. Dramatic Workshop — JONES

Advanced work along lines of student's individual dramatic interests; acting, directing, staging, costuming, play writing, etc. Special attention given to creative work and practical experience afforded those wishing educational, recreational, and community drama training for professional use.

Three units; both semesters.

FINE ARTS

The Major in Fine Arts is not offered for the Liberal Arts Degree. Preparation for an Art Major—Art 1, A–B, 6A–B and two aditional units in lower division art.

The Teaching Major in Fine Arts for the A.B. degree in Education with a general Junior High School Credential.

Lower division—Art A–B, 6A–6B, and four units of lower division art. Care should be taken to choose prerequisites for upper division courses. Ind. Art 61A is recommended.

Upper division—Art 110A–110B, 195 and five units of upper division art.

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

Lower Division Courses

A. Freehand Drawing — KELLY, BENTON

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

Two units; first semester.

B. Freehand Drawing, Painting and Sketching — BENTON

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

Two units; second semester.

1. Art Fundamentals — MOON

An illustrated lecture course intended to increase appreciation and give a basic understanding of the elements and principles of art as expressed in the architecture, painting, sculpture and crafts of the past and present.

Two units; either semester.

6A. Art Structure — MOON

Fundamentals of design and composition and theory of color. This is the basic course used as prerequisite for all advanced art work both in the Education and Liberal Arts fields.

Two units; either semester.

6B. Art Structure (Continued) — BENTON, MOON

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

Two units; either semester.

12A. Advanced Design — BENTON, KELLY

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

Two units; first semester.

12B. Posters and Advertising — KELLY

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

Two units; second semester.

15A. Painting — KELLY

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

One unit; first semester.

15B. Painting* — KELLY

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

One unit; second semester.

94A. Costume Design — KELLY, MOON

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

Two units; first semester.

Upper Division Courses

110A. Art History and Appreciation — MORRIS, MOON

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

Two units; first semester.

110B. Art History and Appreciation — POLAND, MOON

Same procedure as 1A but covering that period from the Renaissance to the Modern School.

Two units; second semester.

115A. Life Drawing*

115B. Life Painting and Portraiture*

115C. Advanced Painting*

112A. Advanced Composition* — BENTON, KELLY

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

Two units; first semester.

152A. Stage Design — BENTON

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

Three units; first semester.

152B. Stage Costume — KELLY

Abstract problems in designing costumes to express mood and practical problems in designing costumes for productions. Prerequisite: 6A, 152A.

Three units; second semester.

152C. Stage Craft — JONES

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

Three units; second semester.

195. Home Decoration BENTON

House planning and landscaping, interior decoration, study of period styles and modern decoration. Illustrated lectures and laboratory problems. Prerequisite: 6A.
Three units; second semester.

* Should these courses not be offered in 1929–30, the equivalent can be taken at the San Diego Academy of Fine Arts. Full credit is given for any course offered at the academy upon presentation of work and transcript of record.

FOREIGN LANGUAGES

Preparation for the Major in a Foreign Language (lower division): Required: 16 units of credit in the language chosen for the major. Recommended: History 4A–4B.
Preparation for the Group Major in Romanic Languages (lower division): French A, B, C, D, and Spanish A, B, C, D.
The Group Major (upper division): Eighteen upper division units in one language or twelve units in one language and six units in the other.
The group major requirements are based on the assumption that the student will have taken courses in the high school which are equivalent to the college course in elementary French or Spanish. A student who offers matriculation credit for only two years of the high school course in a Romanic language may take a placement test to determine his eligibility for the third semester of the college course.

Lower Division Courses

Elementary French

Intensive study of French grammar and syntax; daily written work discussed in class; class drill in conversational idiom and pronunciation; reading with oral discussion and résumés; dictation; introduction to contemporary prose writers; study of the principles of French prosody, with memory work.

A. Elementary French CRAMER, PHILLIPS

Five units; first semester.

B. Elementary French CRAMER, PHILLIPS

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 L. P. BROWN

Prerequisite: French B or three years of the high school course in French, or its equivalent.
Three units; first semester.

D. Intermediate French L. P. BROWN

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

SC. French L. P. BROWN

Scientific French. Prerequisite: French B or three years of high school French.
Two units; first semester.

Upper Division Courses

101A–101B. French E. M. BROWN

Conversation and Composition. Prerequisite: French D, or its equivalent, with grade of C. (Not offered in 1929–1930.)
Three units; both semesters.

102A–102B. Introduction to French Classics E. M. BROWN

Prerequisite: French D or its equivalent.
Three units; both semesters. (Not offered in 1929–1930.)

105A–105B. Modern French Drama E. M. BROWN

Plays of Musset, Scribe, Augier, Dumas fils, Pailleron, Brieux, Hervieux, Maeterlinck, Rostand and others will be read and discussed as to subject matter and technique. Outside reading and reports. Prerequisite: French D, or consent of instructor.
Three units; both semesters. (Not offered in 1929–1930.)

109A–109B. Survey of French Literature L. P. BROWN

This course is intended to give a broad foundation for further study in French literature. The chief movements and writers from the sixteenth through the nineteenth centuries are studied, with selected readings. Prerequisite: French D or consent of instructor.
Three units; both semesters.

Lower Division Courses

Elementary German

Pronunciation, reading and grammar, with practice in simple conversation, narration, and description, both oral and written.

A. Elementary German CRAMER

Five units; first semester.

B. Elementary German CRAMER

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

Intermediate and Scientific German

This course furnishes the regular preparation for the upper division courses.

C. Intermediate and Scientific German CRAMER

This course may be taken as a three-unit course in literature or as a five-unit course combining literature and science. Prerequisite: German B with a grade of C or three years of high school German.
Three or five units; first semester.

D. Intermediate and Scientific German CRAMER

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

Lower Division Courses

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.

L. P. BROWN, PHILLIPS

A. Elementary Spanish

Five units; first semester.

L. P. BROWN, PHILLIPS

B. Elementary Spanish

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

Intermediate Spanish

Reading and composition; study of standard prose as 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.

PHILLIPS

C. Intermediate Spanish

Prerequisite: Spanish B or three years of the high school course in Spanish, or its equivalent.
Three units; first semester.

PHILLIPS

D. Intermediate Spanish

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

Upper Division Courses

101A–101B. Spanish L. P. BROWN

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

102A–102B. Introduction to Spanish Classics L. P. Brown

This course will introduce the student to the several types of classical literature. Reading will be: Gil Blas, and other novels of Roguery; one drama each from the works of Lope de Vega, Calderon, Alarcon, and Moreto: selections from Don Quixote, and the Cien Mejores Poesias Castellanas; collateral reading and reports. Prerequisite: A grade of C in Spanish D or permission from the instructor.
Three units; both semesters. (Not offered in 1929–1930.)

105A–105B. Modern Spanish Drama L. P. Brown

This course will trace the development of the drama of Spain from the beginning of the nineteenth century to the present time. Prerequisite: A grade of C in Spanish D or permission from the instructor.
Three units; both semesters. (Not offered in 1929–1930.)

110A–110B. Novel and Short Story in Spain L. P. Brown

This course will tract the development of the novel and short story in Spain from 1830 to the present time. Prerequisite: A grade of C in Spanish D or permission from the instructor.
Three units; both semesters.

GEOGRAPHY

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

Lower Division Courses

Introduction to Geography; Elements Clark, Suhl

This course deals with the fundamental principles of Geography, with the 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.
Geography 1, three units; either semester.
Geography 1A, two units; either semester (for teacher-training students).

Introduction to Geography; Natural Regions and the Distribution of Population and of Cultures Clark, Suhl

This course applies the fundamental principles of Geography to the various regions of the world. The regions are compared wtih regard to different stages of development. Prerequisite: Geography 1 or 1A.
Geography 2, three units; either semester.
Geography 2A, two units; either semester (for teacher-training students).

3. Elementary Meteorology Blake

An elementary study of the earth's atmosphere and changes in it which produce our weather and influence human affairs. Special attention will be given to local conditions, instruments and records.
Three units.

Upper Division Courses

113. Climatology Blake

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

116D. Geography of South America Clark

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. Prerequisites: Geography 1 or 1A.
Three units.

117. Geography of Europe Clark

This course deals with the physical environment of each of the nations and their 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. This course introduces the students to the smaller as well as the larger of the European countries. Prerequisite: Geography 1 or 1A.
Three units; second semester.

121. Geography of North America Clark

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

124. Geography of Asia Suhl

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

141. Economic Geography Suhl

A world-wide survey of the raw materials of world trade; their production and distribution as related to the major geographic regions of the world. Prerequisite: Geography 1 or 1A and 2 or 2A.
Three units; first semester.

Geology

Geology 1A. Suhl

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

Geology 1B.

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

HEALTH AND PHYSICAL EDUCATION

Women's Department

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

Lower Division Courses

Hygiene 2. Tanner

An informational course reviewing the principles underlying the improvement and preservation of personal and civic health. Social Hygiene is studied in its relations to the practical problems of young women and prospective home makers. The laws and procedures in local civic health matters of particular interest to women are studied in detail. Reports following personal investigation of at least three major topics are required for each member, these reports being given and discussed before the class. Required of all women in the freshman year taking work in the Liberal Arts curricula and of Majors in Physical Education.
Two units; either semester.

52A. Formalized Activities and Group Games Raw and Assistants

One-half unit.

52B. Stunts and Apparatus Raw and Assistants

One-half unit.

52C. Athletic Games and Sports Raw and Assistants

(For Liberal Arts and candidates for the Junior High School Credential.)
One-half unit.

52. Game Activities Raw and Assistants

(For Elementary School Credential.)
One-half unit.

52D. Rhythmical Activities Tanner

One-half unit.

52. Game Activities Tanner

Games suitable for large or small groups in elementary and junior high schools are studied and played. These include rhythmic activities, games of low organization and modified athletic games.
One-half unit; both semesters.

53. Administration of Physical Education Tanner

Consideration of physical education problems, administration of tests, methods of classifying children for play activities, developing leaders, and carrying on intra-

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

Two units; either semester.

Upper Division Courses

151. Health Education — TANNER

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

Two units; either semester.

155. Applied Anatomy

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

Two units; one semester.

101. Emergencies

(See Men's Department.)
One unit.

170. Recreational Leadership — TANNER AND STAFF

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

Two units; one semester.

174. Campcraft — TANNER AND STAFF

The technique of life in open camp is developed by camp experience. This is preceded by study of selection of equipment, proper outing clothes, tents, making beds in the open, making camp fires, camp cooking and camp recreations. Enrollment only by permission of the Instructor. Fee $2.50.

Two units.

CLVII. Sports Methods — RAW

Practice for skill, study of rules and of coaching methods. Prerequisite: A season's experience in at least four of the following sports—Volley ball, basket ball, hockey, speedball, soccer, baseball, tennis and track.

Two units; both semesters.

CLVIII. Stunts and Tumbling — RAW

One-half unit.

CLX. Formalized Activities

(See Men's Department.)
Two units.

CLXI. Folk Dancing — RAW

A series of folk and national dances for elementary and junior high schools. Emphasis is placed on methods of presentation as well as upon ability to execute the various dances. Note books are required.

Two units.

CLXIV. Character Dancing, Clogging, Interpretative Dancing — RAW

Two units; one semester.

CLXXII. Principles of Physical Education

Prerequisite: Junior standing.
Two units; one semester.

CLXXIII. Physical Education Tests and Measurements

Two units; one semester.

HEALTH AND PHYSICAL EDUCATION

MEN'S DEPARTMENT

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

Lower Division Courses

Hygiene 1. — C. E. PETERSON

An informational course in personal and community hygiene required of all men in the freshman year. The course includes a study of Sex Hygiene and the Hygienic Principles of Exercise, Bathing, Sleep, etc. 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.

One unit; either semester.

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

One-half unit.

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

One-half unit.

1C. (Fall semester; Sophomore year.) Instruction and competition in Handball, Basket Ball and Touch Football.

One-half unit.

1D. (Spring semester.) Instruction and competition in Volley Ball, Baseball and Track.

One-half unit.

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

3A or B. Track. One-half unit; second semester.
4A or B. Baseball. One-half unit; second semester.
5A or B. Basket Ball. 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; first semester.
9A or B. Cross country. One-half unit; first semester.
10A or B. Swimming. One-half unit; first semester.
13A or B. American Football. One-half unit; first semester.

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

54. Administration of Physical Education — C. E. PETERSON

This course presents the problems that arise in the everyday experience of the instructor in physical education, such as policies in administration, classification of students, administration of activities, the organization of the leadership of students, the arrangement and care of the physical equipment, personal relationships with students, interdepartmental adjustments, rolls, records, reports, etc. Material presented in latest State Department Manual used as basis.

Two units; either semester.

Upper Division Courses

101. Emergencies. — C. E. PETERSON AND STAFF

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

One unit; one semester.

151. Health Education

(See Women's Department.)
Two units; either semester.

155. Applied Anatomy

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

Two units: one semester.

171. Community Recreation

C. E. PETERSON AND STAFF

This course is planned to meet the needs of the various workers in community playground systems apart from schools as well as the needs of directors of play and recreation in social service institutions, industrial plants, shops and factories. Special attention is given to scout and campcraft, the elementary training of a scoutmaster being part of the course.

Two units: second semester.

CLIV A–B. Methods in Coaching Competitive Athletics.

C. E. PETERSON

The presentation of different systems of teaching competitive athletics in high schools. This course will parallel the major sport in season and time will be spent in both the theory and practice of the most successful systems. Sports covered—American Football, Basket Ball, Baseball, Track and Field, and Tennis.

Two units: both semesters.

CLX. Formalized Activities

C. E. PETERSON

Systems, value, method and progression. Typical lessons for corrective and responsive work. The use of wands, clubs and dumb-bells. Emphasis to be laid on progression and method of presenting the material. The simplest and most explanatory terminology. Theoretical and practical work.

Two units: second semester.

CLXII. Gymnastic Stunts or Self-Testing Activities

BRUCKER

In this course simple stunts on the more popular gymnasium apparatus are practiced. A great variety of nonapparatus stunts are also practiced including pyramid building. The idea behind the course is to make the students proficient in the performance of a great group of gymnastic stunts, which are always popular in the gymnasium and on the playground. This work is of the recreational or self-interesting type rather than the formal.

Two units: second semester.

CLXXII. Principles of Physical Education.

Two units.

CLXVI. Technique of Officiating

BRUCKER

This course covers methods of officiating all the sports common to the school or college program, also methods of training student officials. Practice is given in the handling of elementary, junior high, high school and interclass college competition.

One unit: both semesters.

CLXXIII. Physical Education Tests and Measurements

Two units: one semester.

HISTORY

Preparation for the Major in History (lower division): History 4A–4B or 8A–8B or 5A–5B, and either Political Science 1A–1B, Economics 1A–1B, or Geography 1 and 2. No student shall take more than one of the three History courses at one time.

Students who wish to major in History and who have had less than two years of European History in the High School must take History 5A–5B or 4A–4B.

The Major (upper division): Twenty-four units of upper division work in History to be arranged in consultation with the chairman of the department. The student must, in his senior year, write a term paper, the subject matter of which shall be arranged in consultation with the department.

Lower Division Courses

4A–4B. History of Modern Europe

LESLEY

The development of Western European society, politics and institutions from about 1500 A. D. to the present time. The first half-year's work extends to the Congress of Vienna. Library deposit, $2.50.

Three units: both semesters.

8A–8B. History of the Americas

NASATIR

A general survey of the history of the western hemisphere from the discovery to the present time. Emphasis is placed on the planting of European civilization in

the western hemisphere, the international contest for the continents, the wars for independence, the development of the American republics, and their relations with one another and the rest of the world. The course is based on H. E. Bolton's "Syllabus of the History of the Americas." Library deposit, $1.25.

Three units; both semesters.

5A–5B. History of England

NASATIR

A survey of the more important political, constitutional and cultural phases of English development. The course is advised as a preliminary study for students of American history and government. Library deposit, $2.50.

Three units: both semesters.

Upper Division Courses

111A–111B. Ancient History

LESLEY

A. Greek history to the Roman conquest. B. Roman history to the sixth century. Library deposit, $2.50.

Three units: both semesters.

121A–121B. Medieval History

LESLEY

A general survey of European history from about 500 to 1500 A. D.

Three units: both semesters. (Not offered in 1929–1930.)

145A–145B. Europe Since 1789

LESLEY

The Revolutionary Era in Europe; the conflict of Reaction and Liberalism; the Industrial Revolution; the development of Nationalism, with special attention to the unification of Germany and Italy; political problems of contemporary Europe resulting from the World War. Library deposit, $2.50.

Three units; both semesters. (Not offered in 1929–1930.)

151A–151B. Diplomatic History of Europe

LESLEY

A study of European diplomatic and colonial policies since 1648, with detailed attention to the basic factors in international organization and procedure. During the second semester special emphasis is placed on the period, 1870–1928. Library deposit, $2.50.

Three units: both semesters.

156A–156B. History of British Expansion

NASATIR

A study of the growth, development, and break-up of the older overseas Empire; the beginnings of the newer Empire after 1783; the rise, federation and imperial relations of the self-governing Dominions; the crown colony system; India under British rule; and British expansion in Africa and the Pacific.

Three units; both semesters. (Not offered in 1929–30.)

171A–171B. The Rise of the American Nation

LEONARD

A. English colonization in North America and the development of colonial institutions and politics. B. The revolutionary movement and the Revolutionary War; the establishment of the government under the Constitution to about 1840. Library deposit, $2.50.

Three units; both semesters. (Not offered in 1929–1930.)

173A–173B. The Expansion of the United States

LEONARD

A study of the Mexican War and the slavery controversy, the Civil War and Reconstruction, and the growth and progress of the United States to about 1920. Library deposit, $2.50.

Three units; both semesters. (Not offered in 1929–1930.)

181A–181B. History of the West

NASATIR

Territorial growth of the United States; the diplomacy and politics of expansion; the settlement and development of the West and the influence of expansion upon American institutions and upon international affairs at each stage of the advance.

Three units; both semesters. (Not offered in 1929–1930.)

INDUSTRIAL ARTS

1A–1B. Bench Work in Wood

Fundamental tool and joining operations.

Two units; both semesters.

3A. Mechanical Drawing SCUDDER

Use and care of instruments, lettering, geometrical problems, orthographic projections, revolution, developments, intersections, tracing and blue printing. Nine hours per week.

Three units; either semester.

3B. Advanced Mechanical Drawing SCUDDER

Shop problems, detailed working and machine drawing, and topographical mapping. Nine hours per week. Prerequisite: 3A.

Three units; either semester.

8A–8B. Pattern Making SCUDDER

Principles of pattern making and the use of bench and machine tools.

Two units; both semesters.

11. Shadow Projection and Linear Perspective SCUDDER

Shade and shadow on plane and warped surfaces, elements of perspective and perspective of shadow. Six hours per week. Prerequisite: 3A.

Two units; either semester.

18. Lettering SCUDDER

Single stroke Gothic, block, old and modern Roman titles, etc. Six hours per week. Prerequisite: 3A.

Two units; either semester.

61A. Elements of Industrial Arts BENTON

Practical problems in the handling of industrial materials such as clay modeling and pottery, paper making, bookbinding, weaving, basketry. Also the study of related subject matter and the use of industrial arts information and skills.

Two units; either semester.

61B. Elements of Industrial Arts SCUDDER

Practical problems in the handling of industrial materials involving tool and assembly operations in wood, sheet metal and concrete. Supplies and materials for various projects and the relation and contribution of industrial arts to other activities. Industrial arts as contributing to the evolution of civilization.

Two units; either semester.

MATHEMATICS

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

Lower Division Courses

1A–1B. Elementary Functions LIVINGSTON

Theory and use of algebraic, trigonometric, logarithmic and exponential functions; adapted to the needs of individual students. Prerequisite: Elementary algebra and plane geometry. Mid-year students may enter only by arrangement with the department.

Three units; throughout the year.

2. Mathematics of Investment WRIGHT

Interest and annuities; amortization; sinking funds; valuation of bonds; depreciation; mathematics of building and loan associations; mathematics of life insurance. Prerequisites: Plane trigonometry and two years of high school algebra, or mathematics 1A–1B.

3A–3B. Analytic Geometry and Calculus LIVINGSTON AND MCINTYRE

A unified course in analytic geometry and differential calculus, together with an introduction to the integral calculus. The work of the first semester is complete in itself and may be elected by those wishing only an introductory course. Prerequisites: Trigonometry, plane and solid geometry and two years of algebra in the high school. Students lacking one or two semesters of the high school work, should ordinarily take part or all of 1A–1B, before or concurrently with 3A–3B, according to the judgment of the department.

Three units; throughout the year.

4A–4B. Engineering Mathematics STOVALL

This course includes analytic geometry, both plane and solid; calculus, both differential and integral with special emphasis on their practical use in engineering work.

Three units; both semesters.

5A–5B. Higher Analysis LIVINGSTON

A unified course in algebra, trigonometry, analytic geometry and calculus with applications in the life sciences, social sciences and physical sciences. The acquisition of a good technique is emphasized. Prerequisite: Mathematics 3A–3B.

Three units; both semesters.

6. Introduction to Projective Geometry

The construction and study of conic sections by means of perspectives, poles and polars and involutions. Prerequisite: Plane trigonometry.

Three units; second semester.

Upper Division Courses

101. Elementary Geometry for Advanced Students LIVINGSTON

Selected topics viewed from the standpoint of higher mathemitics. Prerequisites: Mathematics 3A–3B, or equivalent.

Three units; first semester.

102. Elementary Algebra for Advanced Students LIVINGSTON

Selected topics viewed from the standpoint of higher mathematics. Prerequisites: Mathematics 3A–3B, or equivalent.

Three units; second semester.

111. Theory of Equations

General solutions of algebraic equations; approximate numerical solutions; applications. Prerequisites: Mathematics 5A–5B.

Three units; first semester. (Not offered in 1929-1930.)

112. Analytic Geometry of Space

Planes, lines and quadric surfaces. Prerequisites: Mathematics 5A–5B.

Three units; second semester. (Not offered in 1929–1930.)

MUSIC

Preparation for the Major in Music (lower division): Music 1A–1B, 2A–2B, 4A–4B.

These courses are arranged with a particular view to offering everything included in the required preparation for the Secondary Teaching Credential in Music.

Lower Division Courses

1A. Sight Singing and Ear Training L. D. SMITH

This is the first semester of the course "Music 1A–1B—Sight Singing and Ear Training." It includes, besides training and drill in sight singing and ear training, the elements and materials of music; elementary musical theory; musical forms and modes of performance; with considerable listening to music by means of the phonograph. Prerequisite to all music teaching courses.

Two units.

1B. Sight Singing and Ear Training L. D. SMITH

This course includes tonal and rhythmic dictation, rhythmic writing, sight-singing with Latin syllables and with words. Text—Wedge: Ear training and sight singing. Prerequisite: Music 1A.

Two units; second semester.

1C–1D. Advanced Sight Singing and Ear Training. L. D. SMITH

Tonal and rhythmic dictation, rhythmic writing and sight singing in two, three, and four parts. Text—Wedge: Advanced ear training and sight singing. Prerequisite: Music 1A–1B.

Two units; both semesters.

2A–2B. Appreciation and History of Music BEIDLEMAN

How and of what music is made. How to listen to, enjoy, and appreciate it. The development of music from the earliest times, with a particular effort to gain some acquaintance with the music of the various periods and composers by listening to examples of it. Illustrated with numerous phonograph records. A general fundamental, and nontechnical course, requiring no previous musical training or background.

Three units; both semesters.

4A–4B. Harmony (Elementary) BEIDLEMAN

Scale construction, intervals, chords, structure, modulation, through various types of seventh chord. Especial attention is paid to the keyboard application of problems in harmonization, transposition, and modulation. Prerequisite: 1A, or the equivalent.

Three units; both semesters.

Upper Division Courses

105A–105B. Applied (Advanced) Harmony L. D. SMITH

Completion of harmonic theory—modulation, inharmonic tones, etc. Musical form, and elementary musical composition. Harmonic and form analysis. Polyphonic treatment of harmony. Prerequisite: 4A–4B.

Two units; both semesters.

107A. Conducting BEIDLEMAN

The technique of the baton. Methods and materials for use in directing choral and instrumental organizations. Prerequisite: 1A–1B, or 4A–4B.

Two units; first semester.

108A. Orchestration BEIDLEMAN

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

One-half unit; either semester.

MUSICAL ORGANIZATIONS

11A–11B or 111A–111B. Treble Clef (Women's) Glee Club
11C–11D or 111C–111D. (Second Year) L. D. SMITH

Membership based on competitive try-outs.

One-half unit; either semester.

12A–12B or 112A–112B. Men's Glee Club
12C–12D or 112C–112D. (Second year) BEIDLEMAN

Membership based on competitive try-outs.

One-half unit; either semester.

13A–13B or 113A–113B. Orchestra
13C–13D or 113C–113D. (Second year) BEIDLEMAN

One unit; either semester.

14A–14B or 114A–114B. Band
14C–14D or 114C–114D. (Second year) BEIDLEMAN

One-half unit; either semester.

Applied Music

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

15A–15B or 115A–115B. Stringed Instruments
15C–15D or 115C–115D. (Second year)
16A–16B or 116A–116B. Wind Instruments
16C–16D or 116C–116D. (Second year)
17A–17B or 117A–117B. Voice
17C–17D or 117C–117D. (Second year)
18A–18B or 118A–118B. Piano (Pipe Organ)
18C–18D or 118C–118D. (Second year)

ORIENTATION

A. Orientation A. G. PETERSON

An orientation course planned to furnish educational and vocational guidance. Lectures and collateral reading. Required of all freshmen registered in the Liberal Arts curricula.

One unit; either semester.

PHYSICAL EDUCATION

(See Health and Physical Education.)

PHYSICS

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

Lower Division Courses

1A–1B. General Physics MCINTYRE

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

Three units; both semesters.

1C–1D. General Physics 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; both semesters.

2A–2B. General Physics BAIRD

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

Three units; both semesters.

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; both semesters. (Not offered in 1929–1930.)

Upper Division Courses

106. Optics in class schedule as 101 BAIRD

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

Three units; first semester.

107A–107B. Electrical Measurements BAIRD

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

Three units; both semesters.

108. Modern Physics BAIRD

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

Three units; second semester.

PHYSIOLOGY

(See Biological Science.)

POLITICAL SCIENCE

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

Lower Division Courses

1A–1B. Comparative Government LEONARD

A comparative study of typical European governments and the government of the United States. The first semester, England, France, Germany, Italy and Switzerland. The second semester, the lesser European states and the United States. Library deposit, $2.50.

Three units; both semesters.

Upper Division Courses

101. Constitution of the United States LEONARD

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

Two units; first semester.

111. Theory of the State — LEONARD

The nature of the state, its organization and activities, and its relation to individuals and to other states. Library deposit, $2.50.
Three units: first semester.

113. American Political Ideals — LEONARD

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

PSYCHOLOGY

Preparation for the Major in Psychology (lower division). Required: Psychology 2A and 2B, Zoology 1A–1B or Biology 10A–10B. Recommended: French, German, Chemistry, Physics.

Lower Division Courses

2A. General Psychology (for Liberal Arts students) — BELL

An introductory survey of the entire field of psychology. In the study of normal adult human behavior, and the factors which condition it, a conservative position is taken, leaving the student as nearly as possible unbiased toward the special schools of psychology.
Three units; first semester.

2A. General Psychology (for Education students) — BELL, JOHNSON

An introductory survey of the entire field of psychology. The fundamental facts of human behavior and the facts conditioning it are given with special emphasis upon such problems as original endowment, the learning process, work and fatigue and individual differences in their relation to education.
Three units; both semesters.

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.

2C. Genetic Psychology—Growth and Development of the Child — JOHNSON, BELL

A study of the mental and physical growth and development of the child. Special emphasis is given to norms of structure and function as a basis for an interpretation of variations from them. Behavior problems and the growth of personality traits and conditioning factors of physical and mental hygiene are also stressed.
Three units; second semester.

Upper Division Courses

145. Social Psychology — JOHNSON

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: Psychology 2A.
Three units; second semester.

SOCIOLOGY

(See Economics.)

ZOOLOGY

(See Biological Sciences.)

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POST SESSION CLASSES

1929-1930

Sem. I:
Hist. 164-Latin America & The U. S. — 2 units — Nasatir
Child Welfare & Delinquency Problems — 2-3 " — Foster

Sem. II:
Hist. 163-Mexico & The Caribbeann — 2 units — Nasatir
Intro. to Social Case Work — 2-3 " — Foster