

San Diego State College

Announcement of Courses

1928-1929



June, 1928

CALIFORNIA STATE PRINTING OFFICE
SACRAMENTO, 1928

The Educational Quarterly

BULLETIN OF THE

State Teachers College of San Diego

Volume Sixteen

JUNE, 1928

No. 2

STATE TEACHERS COLLEGE OF SAN DIEGO

Administered Through

DIVISION OF NORMAL AND SPECIAL SCHOOLS

OF THE

STATE DEPARTMENT OF EDUCATION

WM. JOHN COOPER	- - - -	Superintendent of Public Instruction ex officio Director of Education
SAM H. COHN	- - - -	Deputy Director of Education

STATE BOARD OF EDUCATION

CHARLES ALBERT ADAMS	- - - -	Humboldt Bank Building, San Francisco
ALLEN T. ARCHER	- - - -	215 West 6th street, Los Angeles
MRS. MINNIE BRADFORD	- - - -	3400 I Street, Sacramento
E. P. CLARKE	- - - -	Riverside
MRS. MARY ROBERTS COOLIDGE	- - - -	Dwight Way End, Berkeley
GORDON GRAY	- - - -	San Diego
MRS. IRENE HEINEMAN	- - - -	1838 North Kenmore, Hollywood
C. L. McLANE (President)	- - - -	1027 Van Ness Avenue, Fresno
MRS. DAISIE L. SHORT	- - - -	1010 Harvard Road, Oakland
MRS. AMY S. STEINHART	- - - -	2400 Steiner Street, San Francisco

OFFICERS

EDWARD L. HARDY	- - - -	President
IRVING E. OUTCALT	- - - -	Vice President
ARTHUR G. PETERSON	- - - -	Dean of Liberal Arts
WILLIS E. JOHNSON	- - - -	Dean of Education
MRS. ADA HUGHES COLDWELL	- - - -	Dean of Women
CHARLES B. LEONARD	- - - -	Acting Dean of Men
MARGUERITE V. JOHNSON	- - - -	Registrar
MAY ESTELLA MORROW	- - - -	Assistant Registrar
GEORGIA AMSDEN	- - - -	Faculty Secretary
MRS. CHARLOTTE G. ROBINSON	- - - -	Librarian
WINIFRED WOODS	- - - -	Assistant Librarian
GENEVIEVE KELLY	- - - -	Assistant Librarian
F. W. VAN HORNE	- - - -	Business Secretary
MARY IRWIN	- - - -	Assistant Secretary
C. L. FISKE	- - - -	Superintendent of Buildings
MARTIN ROTH	- - - -	Superintendent of Grounds
A. L. SEELIG	- - - -	Superintendent of Heating and Electrical Equipment

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

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

FACULTY

- EDWARD L. HARDY, President. School Administration. B.L., University of Wisconsin; M.A., University of Chicago; Study of European secondary schools, 1898-1899; Principal San Diego High School, 1906-1910. (Appointed September 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.)
- ARTHUR G. PETERSON, Dean of Liberal Arts, ex officio in general charge of lower division studies. Economics and Sociology. A.B., College of the Pacific; M.A., Stanford University; Vice Principal San Diego High School and Director of Junior College, 1919, 1920, 1921. (Appointed September 1, 1921.)
- WILLIS E. JOHNSON, Dean of Department of Education. 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; LL.D., Dakota Wesleyan University. Taught in rural, village and city schools, state normal school and university. President of State normal schools at Ellendale, North Dakota, and Aberdeen, South Dakota, and of South Dakota State College, Brookings. Member of staffs of the educational surveys of Virginia and Alabama. (Appointed April 1, 1924.)
- 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 sessions 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.)
- VIVIAN M. ARNERICH, Assistant, Training School. A.B., State Teachers College, San Jose; professional study, Stanford University; Teacher, San Jose public schools two and one-half years. (Appointed September, 1926.)
- J. W. AULT, Principal of the Training School and Associate Professor of Education. Undergraduate work at Miami University and Valparaiso University, B.S. Graduate work at the University of Iowa and the University of South Dakota, M.A. Superintendent of city schools twelve years; conductor and instructor in teachers institutes; professor of Education at Southern State Teachers College, Springfield, South Dakota, 1922-1924. (Appointed September 1, 1925.)
- RUTH G. BAGLEY, Assistant Professor of English. A.B., University of Michigan; A.M., University of California; graduate study, University of Illinois and Columbia University; Head Department of English, State Normal School, Oshkosh, Wisconsin; Instructor, San Diego Junior College, 1919-1921. (Appointed September 1, 1921.)
- O. W. 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. Teacher of violin, organ, theory, and appreciation; chorus, orchestra, and band director; church organist and choir director since 1914, First Baptist Church, San Diego, 1928. (Appointed May, 1927.)

- MRS. GERTRUDE SUMPTION BELL, Associate Professor of Education. 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, Assistant Professor of Art. Student at Rosemont Dezalet, Lausanne, Switzerland; at Chicago Art Institute; at New York School of Art; at Teachers College, Columbia University; pupil of W. J. Whittmore, miniature painter, and of Sara Butterworth, craftsman. (Appointed July 1, 1916.)
- ELIZABETH MCPHIE BROWN, Assistant Professor of French. Ph.B., M.A., Ph.D., University of Chicago; Diplôme de Phonétique, Ecole des Hautes Etudes, Paris, France; Certificat d'Etudes Françaises, 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, Assistant 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.Ed., Michigan State College; B.S. and A.M., Teachers College, Columbia University; graduate Public School Music course, Ypsilanti Conservatory of Music; Teacher in Public Schools, Ypsilanti; special teacher in Americanization courses; Training Supervisor, Kent State Normal College, Ohio. (Appointed July 1, 1921.)
- GEORGIA V. COY, Professor of Botany. Graduate San Diego Normal School; Teacher in San Diego County Schools, 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.)
- ALMYRA DAWSON, Assistant, Training School. A.B., San Diego State Teachers College. (Appointed September, 1925.)
- CLARENCE J. DU FOUR, Assistant Professor of History. B.L., University of Wisconsin; M.L., Ph.D., University of California; teacher, principal and superintendent of schools. (Appointed July 1, 1928; resigned January 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. FERGASON, 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.)
- WALLACE A. GILKEY, Assistant Professor of Chemistry. A.B. and C.E. (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 Smelting 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.)

- 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.)
- MRS. ALICE LILI HEIMERS, German. Student at Universities of Bonn, Lausanne, Berlin (Ph.D. Berlin). Postgraduate work at University of Chicago and Columbia University. Head of Department of Modern Languages, State Normal School, Indiana, Pa.; Assistant Professor of Modern Languages, St. Lawrence University, N. Y.; Supervisor of Foreign Language Press in the United States during the World War. Assistant Editor of "Foreign Born." (Appointed September 1, 1924.)
- EDGAR L. HEWETT, Professor of Anthropology. D.Sc., University of Geneva, Switzerland; Director School of American Research of the Archeological Institute of America; Director, San Diego Museum. (Appointed September 1, 1922.)
- 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, Drama Production. 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.)
- 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 Professor 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.)
- 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 Departments, 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, 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.

*On leave of absence, 1928-1929.

†On leave of absence, 1927-1928.

WILLIAM L. NIDA, Associate Professor of Education, Supervisor of Public School Practice 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, 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; graduate assistant in Spanish and graduate scholar in Spanish, Stanford University; 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. (Appointed September 1, 1923.)

ALICE M. RAW, Physical Education. A.B., University of Southern California; Student Teacher in Physical Education, Polytechnic High School and University High School, Los Angeles; graduate student, University of Southern California, summer sessions 1924-1925; foreign travel, 1926. (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, Assistant 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 Agriculture and Nature Study, 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. SMITH, Assistant 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,* Assistant Professor of Music. Mus. B., A.B., Oberlin College; 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; Prosecuting 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 apparatus; 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.)

*On leave of absence, 1927-1928.

ALVENA SUHL, Assistant in 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, Assistant 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 Lectures in Art

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

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

Assistant Instructors

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

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.)

MARJORIE KELLY, Fine Arts. B.E., University of California at Los Angeles, art major; teacher of art in Pasadena city schools. (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.

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.)

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.)

NELLIE FOSTER, Social Work. LL.B., John Marshall Law School; Graduate Chicago School of Civics and Philanthropy; formerly connected with United Charities of Chicago; American Red Cross and United States Children's Bureau; three years experience in Red Cross and Social Service in Austria, Czechoslovakia and Porto Rico; resident of Hull House and Greenwich House.

†On leave of absence, 1928-1929.

Mrs. Scott

CALENDAR 1928-1929

Summer Session, 1928.

Term I, six weeks, June 25-August 3.

Term II, four weeks, August 6-August 28.

Fall Semester, 1928-1929.

September 5, 8.00 a.m., College Aptitude Test.*
 September 5, 1.30 p.m., Assembly of New Students.
 September 6, 8.00 a.m., Examination in Subject A (English Composition).
 September 6, 10.30 a.m., Assembly of New Students.
 September 6, 1.30 p.m., Fundamentals Test.†
 September 6, 7.30 p.m., Reception to Freshmen.
 September 7, 8.30 a.m. to 4.00 p.m., Registration of Old Students.
 September 8, 8.30 a.m. to 4.00 p.m., Registration of New Students.
 September 11, Class Work Begins.
 November 12, Legal Holiday.
 December 15, Christmas Recess Begins.
 January 2, 1929, Class Work Resumes.
 January 24, 1929, Mid-Year Examinations.
 January 30, 1929, Mid-Year Graduation Exercises.

Spring Semester, 1928-1929.

January 31, 8.00 a.m., College Aptitude Test.*
 January 31, 1.30 p.m., Assembly of New Students.
 February 1, 8.00 a.m., Examination in Subject A (English Composition).
 February 1, 10.30 a.m., Fundamentals Test.†
 February 1, 7.30 p.m., Reception to Freshmen.
 February 1, 8.30 a.m. to 4.00 p.m., Registration of Old Students.
 February 2, 8.30 a.m. to 4.00 p.m., Registration of New Students.
 February 4, Class Work Begins.
 March 23-31—Spring Recess.
 May 1, Dedication Day.
 May 30, Legal Holiday.
 June 7-13, Final Examinations.
 June 14, Annual Commencement Exercises.

Summer Session, 1929.

Term I, six weeks, June 24-August 2.

Term II, four weeks, August 5-August 27.

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.

On and after July 1, 1927, the courses hitherto carried as "junior college" courses, will be offered as lower division courses of the regular three- and four-year curricula and the junior college, so-called, will give way to the "lower division," which will include, as heretofore, preparatory curricula leading to majors in liberal arts and the several professional fields.

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

*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, CVI, CVIII and CXVI. Former graduates of this college and graduates from approved four-year college courses and holders of California teaching credentials are exempt.

THE CALENDAR AND REGISTRATION

The college year is divided into the autumn and spring semesters of eighteen weeks each, followed by a summer quarter consisting of a first term of six weeks (the regular Summer Session) and a second term of four weeks in which professional courses of a seminar type are offered to students and teachers whose certification needs may be met by supplemental units of credit (not to exceed 4) earned in this term. Students may enter at the beginning of either semester and at the beginning of either term of the summer quarter.

The Summer Session meets the needs of regular students who wish to gain credits toward the professional diploma or the A.B. degree, of teachers in service who wish further professional training and of 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 7 and 8. 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 Physical 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 courses.

Special certification courses of secondary grade will be offered in Art, Commercial Education, Health Education, Music (Public School Music), Industrial Arts, 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, Home Economics, 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, conferences, etc.—The Dean of Education.

Concerning matriculation, program of studies and teaching, credits, etc.—The Registrar.

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

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

Concerning student-body affairs.—The executive officers of the student-body; The Dean of 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 Zeta, Sigma Lambda, Kappa Phi Sigma, Omega Zeta, 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, basketball, track, swimming and tennis.

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

Publications: The Aztec (weekly), Del Sudoceste (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

(Each Semester)

Registration fee	\$1 50
Part-time (special student's) registration fee	5 00
Late registration fee	2 00
Fee for additional transcript	1 00
Special examination fee	2 00

SPECIAL CHARGES

Syllabi	\$0 50
English, Subject A	25
Fundamentals test	50
College Aptitude test	3 00
Towel service (men and women)	1 50
Locker key (Physical Education or Art), each key	50

The above fees and charges, with the exception of the transcript and special examination fees, are payable at the time of matriculation. The English, Fundamentals and Thorndike deposits are payable prior to taking the examinations.

COURSE CHARGE DEPOSITS

(Each Semester)

Biology	\$2 00
Botany	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
Drama 55A, 55B, 55C, 55D	2 50
Fine Arts—Costume Design, Stage Craft, Elementary Industrial Arts	1 00
Industrial Arts 1A, 1B, 2, 6, 7, 9 13 16 116	2 00
Industrial Arts 4, 5	3 00
Industrial Arts 8A, 8B, 117	4 00

Library	\$2 00
Physics (each course, except 2A, 2B)	5 00
Surveying	5 00
Zoology 112	1 50
Zoology 1A	2 00
Zoology 1B	7 00

Course charges are payable at a time to be announced, usually about the fourth week, on the official bulletin board. Failure to pay on the specified dates will entail a penalty of 10% on the bill.

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

The institution has facilities and equipment as follows:

A College Library of 32,000 volumes.

Laboratories for Physics, Chemistry, and Biological Science.

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

For Physical Education, a well equipped gymnasium, lockers and showers, classrooms, 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. The institutions and facilities that go to make up the "great college" or the "greater university" must be present in a college or university city, if the student is to work in a genuinely cultural atmosphere. In cultural standards in art, music, literature, and science, San Diego is an eligible college city because while it is not a large city yet it has certain metropolitan advantages for the student. Many of these are to be found in the heritage resulting from the San Diego Exposition of 1915-1916, including the buildings themselves, which in their consistent and effective carrying out of motifs of the best types of Spanish colonial art, make up one of the finest exhibits in architecture in America. Housed in these buildings are exhibits in anthropology and culture history which are unsurpassed in certain fields, together with natural history collections, and materials for the study of American archaeology. There is complete 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 because of the policy of cooperation generously followed by the City School Department, which has resulted in a plan for laboratory work in practice teaching in the city schools. San Diego's fine system of schools, with all of the modern divisions of kindergarten, elementary schools, junior high schools, 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 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.

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 aptitudes tests, may be admitted as provisional students. At the close of the first semester in residence, a complete re-evaluation 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.—Transcripts 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 registering 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 juniors; and those who have completed 92 or more units are seniors.

Units of Work and Study-Lists Limits

A unit of credit represents approximately, for the average student, three hours of actual work per week through one semester—one hour of lecture or recitation, together with two hours of preparation; or three hours of field or laboratory work.

Sixteen units, in addition to physical education ($\frac{1}{2}$ unit), constitute a normal semester's program for all students except those in Engineering, where the normal requirement is $17\frac{1}{2}$ or $18\frac{1}{2}$ 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 deficiency by supplementary examinations or study. A report of "incomplete" is made only in case the student, for good reasons, has been absent from class meetings or examinations or has

failed to perform a definite part of the work of the course. A condition or "incomplete" not removed before the end of the following semester is considered a failure. In case of failure in a course no credit is given until the course has been repeated.

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 point deficit be reduced, in the case of a regular student to an amount less than 12 and, in case of a limited student, to an amount less than the average number of units carried per semester.

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

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. 24 units must be completed in the senior or final year, and 12 of these units in the fall or spring semester of the senior year. The latter provision shall not apply to graduates from the elementary school course of this College until September 1, 1929.

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 16 for an explanation of scholarship grades and grade points.) Credits from other colleges will be evaluated in accordance with this general plan.

TEACHERS COLLEGE CURRICULUM

Leading to the A.B. degree and also to the General Elementary Credential (permitting the holder to teach in grades I-VI), or to the General Junior High School Credential (permitting the holder to teach in grades VII-X), or to both credentials.

Freshman Year

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

Sophomore Year

First Semester—	
Psychology 2A, General Psychology.....	3
Music 1A, Music Fundamentals*.....	2
Physical Education 52, Play Activities* or.....	2
Physical Education 1C or 52C.....	2
Second Semester—	
Psychology 2C, Genetic Psychology.....	3
Ed. XVII, Music in the Elementary School*.....	2
Physical Education 53, Administration*.....	2
Physical Education 1D or 52D.....	2
Either Semester—	
Ed. I, Introduction to Education.....	3
Industrial Arts 61A* or 61B* (both required).....	4
Electives for Junior High Credential 22, for Elementary Credential or both.....	12
	32

Junior Year

First Semester—	
Ed. CXXXVIII Primary Curriculum*.....	3
Ed. CXXXIX Mathematics in the Elementary School*.....	2
Ed. CXXXVI Children's Literature*.....	2

	Units of Credit
Second Semester—	
Ed. CXVI Practice Teaching.....	3
Either Semester—	
Ed. CVIII Educational Measurements.....	3
Curriculum in Field of Academic Major,† or.....	2
Ed. CIV Elementary Curriculum* (or both).....	3
Physical Education 51, Health Education.....	2
Electives for Junior High Credential 20, for Elementary Credential 12, or both.....	10
	30

Senior Year

First Semester—	
Ed. CXVI Practice Teaching.....	6 or 9
Second Semester—	
Ed. CVI Principles of Elementary Education* or.....	3
Ed. CI Principles of Junior High School Education†.....	3
Electives.....	21 or 18
	30

Academic Teaching Major

The junior high school requires departmental teachers who have specialized in particular fields. Students seeking the junior high school credential must so pattern their courses that they will include a major of twenty-four units of credit in a subject or field taught in junior high school. This academic teaching major should be patterned early in the course so that it will be sure of approval as satisfying this requirement. If the student has not had adequate preparation in the high school for the academic teaching major some additional college work may be necessary. A minimum of twenty-four units in education is required for any teaching credential and a maximum of forty credits may be taken.

PROFESSIONAL COURSES The Elementary Diploma Course Lapses September 15, 1930

Freshman Year

	Units of Credit
English.....	6
Orientation.....	1
Introductory Principles of Education I.....	3
Introduction to Geography, Elements 1A and Regions 2A.....	4
Mathematics in the Elementary School, Ed. XII.....	2
Physical Education.....	1
Electives¹.....	15
Total.....	32

Sophomore Year

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

*Not required if only a junior high school credential is sought.

†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.

¹Electives must be so chosen that the student will have a total of twelve units of credit in Social Science (Contemporary Civilization, Political Science, History, Economics, Sociology, Anthropology) and twelve units of Biological and Physical Science. They must include six units in Biology unless the student presents recommended grades in this subject from high school. Electives in the Junior year must include a minimum of four units in Upper Division courses in the Liberal Arts curricula.

Junior Year

	Units of Credit
Elementary School Curriculum, Ed. CIV.....	3
Educational Measurements, Ed. CVIII.....	3
Practice Teaching, Ed. CXVI.....	10
United States Constitution (Pol. Sci. 101).....	2
Electives.....	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, Commercial Education, Health Education, Industrial Arts, Music, and Physical Education. Fifteen units of work in education as a minimum and from twenty-four to fifty units in the special field will be required. (California teachers in service may, before September 15, 1928, file application for the credential desired with the Division of Teacher Training and Certification, with an outline of the work planned to meet the requirements expiring September 15, 1928. If the programs are acceptable and can be completed by September 15, 1930, an extension of time will be granted.)

Physical Education Type

(Physical Training Activities)

Credential of Elementary and Junior High School Grade.
Credential of Secondary School Grade.

Arts Type

Credential of Elementary and Junior High School Grade.

Music Type

(Public School Music)

NOTE.—Students may matriculate for this curriculum only upon the fellowship plan outlined on page 17 of this bulletin. Applicants for admission should send complete transcripts of record showing the number of units of work in music completed.
Credential of Elementary and Junior High School Grade.

Prevocational Type

(Home Making)

Credential of Elementary and Junior High School Grade.

Prevocational Type

(Occupations and Home Mechanics)

Credential of Elementary and Junior High School Grade.
(Offered for the "Limited Class" only.)

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

Letters and Science Curriculum

(Subject to the approval of the State Board of Education. For additional requirements see page 17.)

Leading to the A.B. degree. Completion of this course also enables the graduate to satisfy the undergraduate requirements for the General Secondary Credential which, with post-graduate work, will enable the holder to teach in a senior high school or junior college.

Lower Division

a) General Requirements for All Students.

College Aptitude Test.
An examination in Subject A (English Composition).
Hygiene, 1 unit (Men), 2 units (Women).
Physical Education, 2 units.
Social Ethics.
Orientation, 2 units.
English, 6 units.

b) Foreign Language.

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

c) Mathematics.

High school courses in elementary algebra and geometry.

d) Natural Science, 12 units.

A maximum of 6 units chosen from the following high school courses when offered in the third or fourth year of the high school:

High School Physics,* 3 units.
High School Chemistry,* 3 units.
High School Botany, 3 units.
High School Biology, 3 units.
High School Physiology, 3 units.
High School Zoology, 3 units.

A minimum of 6 units chosen from the following:

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

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

French: Any two consecutive courses of A, B, C, D, 102A, 102B, 105A, 105B, SC, SD.
Spanish: Any two consecutive courses of A, B, C, D, 102A, 102B, 105A, 105B, 110A, 110B.
German: Any two consecutive courses of A, B, C, D, SC, SD.
Latin: Two years of High School Latin, each year counting as 3 units.
Mathematics: 3A, 3B, 6.

f) Social Science, 12 units, 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, Sociology 50.

g) Courses required for the major.

See subjects listed under each major subject in the descriptive list of courses of instruction.

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.

*One of the courses marked with an asterisk must be chosen to meet the Natural Science requirements and the Social Science requirement, respectively.

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.

A minimum of 12 units in Education is required and a maximum of 18 units will be counted toward the A.B. degree in the College of Liberal Arts. 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. CXI, Elementary Statistics; Psychology 2C, Genetic Psychology.

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

Agriculture: Home 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: Glee Clubs and Choral Clubs.

Physical Education: All sport and play activities; Physical Education 51 and 53.
Physiology: Physiology A.

Commerce Curriculum

- a) General Requirements.
 - College Aptitude Test.
 - An examination in Subject A (English Composition).
 - Hygiene, 1 unit (Men), 2 units (Women).
 - Physical Education, 2 units.
 - Social Ethics.
 - Orientation, 2 units.
 - English Composition, 6 units.
- b) A reading knowledge of French, Spanish, or German, 9 units.
(A high school language may be used to satisfy this requirement in part or in whole, each year-course counting as 3 units.)
- c) History 4A-4B, 8A-8B, or Political Science 1A-1B, 6 units, or any combination of the foregoing courses.
- d) Geography 1, 3 units, and Geography 2, 3 units.
- e) Mathematics 2, 3 units.
(Prerequisites: Trigonometry and two years of high school Algebra or College Algebra.)
- f) Natural Science, 9 units.
(This requirement may be satisfied in part by high school courses in Physics and Chemistry, each year-course counting as 3 units.)
- g) Economics 1A-1B, 6 units.
- h) Electives.

Upper Division

Requirements for Senior standing in the Commerce curriculum, besides those of the Junior Certificate, include Economics 14A-14B (Accounting), 6 units; Economics 18A-18B (Business Law), 6 units; Economics 11 (Economic History), 3 units; Economics 140A-B (Elementary Statistics), 4 units; and 9 additional upper division units in economics.

Commerce candidates for the A.B. degree must meet the upper division requirements of the Letters and Science curriculum with a major in economics.

Prelegal 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 6 additional upper division units.

Premedical Curriculum

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

b) Additional requirements:

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

c) Third year (Required):

Physics 2A-2B, 6 units.
Physics 3A-3B, 2 units.
Chemistry 101-102, 8 units.
Zoology 100, 2 units.
Political Science 101, 2 units.

Predental Curriculum

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

b) Additional requirements:

Chemistry 1A-1B, 10 units.
Chemistry 8-9, 6 units.
Zoology 1A-1B, 8 units, or Biology 10A-10B, 6 units.
Physics 2A-2B and 3A-3B, 8 units.

Prearchitectural Curriculum

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

b) Additional requirements (first year):

Mathematics 3A-3B, 6 units.
Physics 1A-1B, 6 units.
Art A-B, 4 units.
Art 6A-6B, 4 units.

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; or Physiology A, 4 units.
Anthropology 1A-1B, 4 units.
Sociology 50, 3 units.
Biology 10A-10B, 6 units; or Zoology 1A, 4 units; or Physiology A, 4 units.
Political Science 1A-1B.
History 4A-4B, or 5A-5B, or 8A-8B.

c) Third year (Required):

History 171A-171B and a minimum of 6 additional upper division units.

Mechanical, Electrical, Civil and Mining Engineering Curricula

First Year

	Sem. I Units	Sem. II Units
Mathematics 3A-3B	3	3
Physics 1A-1B	3	3
Chemistry 1A-1B	3	3
Plane Surveying 1A-1B	3	3
Orientation	2	—
Hygiene 1	1	—
Physical Education	$\frac{1}{2}$	$\frac{1}{2}$
Social Ethics	—	—
Social Science (Elective)	—	3
	17 $\frac{1}{2}$	17 $\frac{1}{2}$

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 1A	3	—
Electrical Engineering I	—	3
Pattern Making 8A-8B	2	2
Physical Education	$\frac{1}{2}$	$\frac{1}{2}$
English	3	3
	18 $\frac{1}{2}$	18 $\frac{1}{2}$

Civil Engineering

Mathematics 4A-4B	3	3
Physics 1C-1D	3	3
Descriptive Geometry 3D	3	—
Geology 1A	—	3
English	3	3
Physical Education	$\frac{1}{2}$	$\frac{1}{2}$
	18 $\frac{1}{2}$	18 $\frac{1}{2}$

Railroad and Irrigation:

Applied Mechanics 1A	3	—
Pattern Making 8A-8B	2	2
Electives	1	4
	18 $\frac{1}{2}$	18 $\frac{1}{2}$

Sanitary and Municipal:

Chemistry 8-9	3	3
Chemistry 6A-6B	3	3
	18 $\frac{1}{2}$	18 $\frac{1}{2}$

Curriculum in Industrial and Engineering Chemistry

First Year

Mathematics 3A-3B	3	3
Physics 1A-1B	3	3
Chemistry 1A-1B	3	5
German A-B	5	5
Orientation	2	—
Hygiene 1	—	1
Physical Education	$\frac{1}{2}$	$\frac{1}{2}$
Social Ethics	—	—
	18 $\frac{1}{2}$	17 $\frac{1}{2}$

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	$\frac{1}{2}$	$\frac{1}{2}$
	18 $\frac{1}{2}$	18 $\frac{1}{2}$

Preagricultural Curriculum

First Year

	Units Sem. I	Units Sem. II
Social Ethics	2	—
Orientation	—	1
Hygiene 1	$\frac{1}{2}$	$\frac{1}{2}$
Physical Education	4	4
Botany 2A-2B	5	5
Chemistry 1A-1B	3	3
Physics 2A-2B	3	3
English	—	—
	17 $\frac{1}{2}$	16 $\frac{1}{2}$

Second Year

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
Physical Education	$\frac{1}{2}$	$\frac{1}{2}$
	16 $\frac{1}{2}$	16 $\frac{1}{2}$

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, manufacturers, transportation men and financiers.

Accountancy

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

First Year

	Sem. I Units	Sem. II Units
Accounting 14A-14B	4	3
Typewriting 1A-1B	4	4
Business Mathematics A	2	—
Orientation	—	1
Hygiene	$\frac{1}{2}$	$\frac{1}{2}$
Physical Education	—	—
Social Ethics	3	3
English Composition	3	5
Electives	—	—
	16 $\frac{1}{2}$	16 $\frac{1}{2}$

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
Office Methods 3A	$\frac{1}{2}$	$\frac{1}{2}$
Physical Education	3	—
Economic History 11 or Electives	—	—
	15 $\frac{1}{2}$	15 $\frac{1}{2}$

Secretarial Training

Two-Year Course (leading to Secretarial Certificate).

First Year

	Sem. I Units	Sem. II Units
Shorthand 1A-1B	5	5
Typewriting 1A-1B	4	4
Hygiene 2	2	—
Physical Education	—	1
Social Ethics	—	—
Orientation	2	—
English Composition	3	3
Electives	—	3
	16½	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	—	1
Economics History 11 or Electives	3	—
Business Mathematics A	—	—
	16½	15½

Accountancy and Secretarial Training

First Year

Accounting 14A-14B	4	3
English Composition	3	3
Typewriting 1A-1B	4	4
Business Mathematics A	—	—
Orientation	2	—
Hygiene	—	1
Physical Education	—	1
Social Ethics	—	—
Electives	3	5
	16½	15½

Second Year

Advanced Accounting 60A-60B	3	3
Commercial Law 18A-18B	3	3
Office Methods 3A	—	3
Economics 1A-1B	3	3
Shorthand 1A-1B	5	5
Physical Education	—	1
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

The Major in Anthropology (lower division)—Anthropology 1A, 1B.

1A. General Anthropology: Origin and Antiquity of Man

HEWETT

Man as an animal; heredity; races and race problems; earliest culture.

Two units; second semester.

1B. General Anthropology: Origin and Development of Civilization

HEWETT

The source and growth of institutions, art, customs, industries, language, and religion. Prerequisite: Anthropology 1A.

Two units; second semester.

ASTRONOMY

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 SCIENCE

The biological science courses are grouped under the following heads: Biology, Botany, Zoology.

General students who are taking the minimum of biological science should register for Biology 10A-10B (6 units) whether or not they have taken any high school biology.

Students who are taking more than the minimum of biological science or who have credit for high school botany or zoology should not register for Biology 10A-10B but should take botany or zoology.

For courses in the teaching of biological science in the schools, see Education XX, CXX, and CXXV.

BIOLOGY

10A-10B. General Biology

M. E. JOHNSON

The fundamentals of plant and animal biology, with elementary work in heredity, evolution and eugenics. The laboratory work supplements the lectures and includes a study of living and preserved material. The aim of the course is to acquaint the student with the basic facts of biology. It is designed not only to give the general student an acquaintance with living things and their relationships, but also to furnish the prospective teacher with an adequate background for nature study teaching. Two lectures or recitations and one three-hour laboratory period per week.

Not open for credit to students who have taken Botany 2 or Zoology 1.

Three units; both semesters.

BOTANY

The Major in Botany (lower division)—Required: Botany 2A-2B and high school chemistry or Chemistry 1A-1B. Recommended: Chemistry 8 and 9, French, German, and elementary courses in other biological subjects.

2A. General Botany

COY

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

COY

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

COY

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.

102. Plant Geography

COY

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

Two units; first semester.

ZOOLOGY

The Major in Zoology (lower division)—Required: Zoology 1A-1B and high school chemistry or Chemistry 1A-1B. Recommended: Chemistry 8 and 9, French, German, and elementary courses in other biological subjects.

1A. General Zoology

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

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

Four units; second semester.

100. Embryology

M. E. JOHNSON

The development of vertebrates as illustrated by the chick, frog, and pig. Six hours per week of lecture, laboratory, and recitation. Prerequisite: Zoology 1A-1B or a grade of C or better in 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.

BOTANY

(See Biological Science.)

CHEMISTRY

The Major in Chemistry (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 equivalents, 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.

1A-1B. General Chemistry

PIERCE, GILKEY

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.

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.

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.

ECONOMICS

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.

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 the 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.

60A-60B. 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.

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.

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. (Not offered in 1928-1929.)

125. Advertising and Salesmanship

Principles and problems.

Three units; one semester. (Not offered in 1928-29.)

131. Public Finance

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

Three 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.

Three units; one semester.

140. Statistical Methods

BROOM

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.)

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.

10. Introduction to Social Science

COLDWELL

This course is given with the object of helping the student adapt himself to contemporary problems and to give him greater facility in understanding his responsibilities as a member of the family, social group, and a citizen.

It includes those subjects pertaining particularly to human conduct, with a study of the various forces and laws under which present day conditions have been formed. Lectures, discussions, collateral reading. Primarily for teacher-training students.

Three units; either semester.

50. General Sociology

KELLY

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

Three units; one semester.

145. Social Psychology.

(See Psychology.)

Secretarial Training

AMSDEN

1A-1B. Typewriting

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

Four units; both semesters.

2A. Typewriting

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

Two units; either semester.

1A-1B. 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.

2A. Stenography

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

Three units; second semester. (Not offered in 1927-1928.)

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 multi-graph, mimeograph, filing devices, calculating and bookkeeping machines. Trips are made to local establishments to study at first hand actual business conditions. Prerequisite: Typewriting 1A or its equivalent.

Three units; second semester.

A. Business Mathematics

WRIGHT

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

No credit; first semester.

EDUCATION

I. Education—Introductory Principles and Technique

JOHNSON, 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 Association and its functions.

Open only to students who have passed the Fundamentals Test.
Three units; either semester.

CI. Principles of Junior High School Education

HARDY

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

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 rulings 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.

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.

CIV. Elementary School Curriculum

AULT

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

JOHNSON, HARDY

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

BELL

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

Systematic observation, participation and actual teaching under competent supervision in the Training School and in the city schools of San Diego. A limited amount is also afforded in rural and ungraded schools.

The general plan for an inexperienced teacher is to take one period of practice teaching daily for a semester and a half day of teaching for another semester. The former is usually credited with two or three units and the latter with from six to eight, the amount of credit given in each case depending upon the character of the assignment and the work done. Where more time is needed the student is given additional practice under trained supervision.

The minimum requirement for those who average a B grade in practice teaching is nine units; for others, twelve units. The requirements may be reduced for those who have had successful teaching experience.

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

CORBETT

CXVIII. Class Management

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.

CXXX. Educational Psychology

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.

XI. Language

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

Two units; one semester.

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.

XIII. Introduction to Geography

CLARK

This course includes a study of the fundamental principles of Geography and their adaptation to teaching Geography in the elementary schools.

Two units; one semester.

CXXVI. Children's Literature

CORBETT

This is a detailed study of the literature for children as a basis for the appreciation, selection and presentation of suitable material for the elementary school grades. It includes practice in story-telling and dramatization.

Two units; either semester.

XV. History

PEEK

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

Two units; one semester.

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.

COURSES FOR SECONDARY SCHOOL TEACHERS

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 grades. 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

LEONARD, 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 text books, 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-D. The Teaching of Science in the Junior High School

A course in the content, methods, field work, textbooks, laboratory work, equipment, and reference readings for Junior High School Science. Prerequisite: 18 units of college science.

CXX. A. Prerequisite: 18 units of college science including Biology 10A-10B or Zoology 1A-1B.

One unit, nine weeks (first quarter).

JOHNSON

CXX. B. Prerequisite: 18 units of college science including Biology 10A-10B or Botany 2A-2B.

One unit, nine weeks (second quarter).

COY

CXX. C. Prerequisite: 18 units of college science including Physics 2A-2B or equivalent.

One unit, nine weeks (third quarter).

BAIRD

CXX. D. Prerequisite: 18 units of college science including high school or college Chemistry.

One unit, nine weeks (fourth quarter).

SKILLING

CXXII. Organization of Industrial Arts

SCUDDER

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

Two units; second semester.

CXXIII. Teaching Industrial Arts

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

SCUDDER

CXXIV. Romance Languages

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

BROWN

CXXVII. Music in the Secondary School

Two units. (Not offered in 1928-29.)

L. D. SMITH

PHYSICAL EDUCATION FOR TEACHERS

CLI. Methods in Formal Activities

TANNER, C. E. PETERSON

(For Elementary and Junior High Schools.)

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

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

One unit; one semester.

For descriptions of the courses in Biology, Physiology, Hygiene, etc., required for special certification in Physical Education, see those subjects in the list of general collegiate courses.

CLII. Theory of Teaching and Leadership in Physical Education

TANNER

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

One unit; one semester.

CLIII. Methods in Play Activities.

C. E. PETERSON

Methods and materials used in intra- and inter-class games, with special reference to mass competition. Problems of classification, selection, organization and management of inter-school contests and relations. Discussion of honor societies, trophies, awards and sportsmanship code.

Three units; one semester.

CLIV. Administration of Physical Education Program in Secondary Schools

PETERSON

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

Two units; one semester.

CLV. Practice Teaching in Physical Education

TANNER, PETERSON

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

Five units.

CLVI. A-B. Methods in Coaching Competitive Athletics.

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.

Two units; both semesters.

ADDITIONAL COURSES IN PHYSICAL EDUCATION

First Semester, 1928-1929

Stunts and Gymnastic Dancing

One-half unit. Third year.

RAW

Intramural Sports (Methods)

Two units per semester. Fourth year.

RAW

Second Semester, 1928-1929

Intramural Sports (Continued)

Two units.

RAW

First Aid (Women only)

One unit. Third year.

Recreational Leadership

Three units. Fourth year.

TANNER

ENGINEERING

C. Mechanical Drawing

DE SILVA

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.

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. 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.

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.

Three units; first semester.

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

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.

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 (upper division)—At least fifteen units in upper division courses completed in the junior and senior years.

1A-1B. English Composition

BAGLEY, SMITH

The purpose of this course is to develop precision and directness in speaking and writing. A study of models, chosen from modern literature, forms the basis of class discussion and presentation. In 1A the emphasis is on exposition; in 1B on argu-

mentation, 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 1928-1929.)

60. Periodical Literature

WALKER

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.

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.

106. Advanced English Composition

F. L. SMITH

A laboratory course in modern writing, with the purpose of developing style and strength in the composition. A variety of prose forms (excluding the novel) and some poetry considered; student may choose one or two forms for intensive practice. Outside readings. Prerequisite: One year of college composition.

Three units; first semester.

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.

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 1927-1928.)

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.

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 semester.

JOURNALISM

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 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 copy-reading. Study of news values and types of newspaper stories.

Three units; second semester.

53A-53B. English-Journalism Applied

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

The Major in Speech Arts (lower division): Public Speaking 1A-1B, Public Speaking 3A and 5A or Public Speaking 55A-55B.

1A-1B. Elements of Public Speaking

WALKER

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

WALKER

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

WALKER

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

Study of its history and technique. Practical training in acting and producing. Public presentation of plays worked out in class. Limited to thirty students.

Three units; both semesters.

55C-55D. Dramatic Workshop

JONES

The making of plays. Students specialize creatively along lines of their individual dramatic interest including presentation of original and standard plays. Limited to twenty advanced students.

Three units; both semesters.

52A. Stage Design; 52B, Stage Costume; 52C, Stage Craft

(See Fine Arts.)

FINE ARTS

The Major in Fine Arts (lower division): Art A-B, 1A-1B, 6A-6B, 12B.

Art A. Freehand Drawing BENTON

Problems involving principles of perspective are given to develop ability to draw and technique in pencil, charcoal, etc.
Two units; first semester.

Art 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.

1A. Art History and Appreciation POLAND, 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.

1B. 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.

6A. Art Structure BENTON, MOON

Theory of design and color. This course is 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. The time is equally divided between lectures and practical problems.
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

Problems in creative design and processes of application through batik, block-printing, etc. Prerequisite: 6A-6B.
Two units; first semester. (Not given in 1928-1929.)

12B. Lettering and Posters MOON

Design studied in relation to lettering, illumination and posters. Lettering for prearchitecture students included when desired. Prerequisite: 6A.
Two units; second semester.

52A. 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 52C.
Three units; first semester.

52B. Stage Costume (Not offered in 1928-1929.)

52C. 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: 52A.
Three units; second semester.

94A. Costume Design 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.

94B. History of Costume and Advanced Costume Design MOON

This course is for students working towards special art or home economics certificates of secondary grade. Prerequisite: 94A.
Two units; second semester. (Not given in 1928-1929.)

95A. Home Decoration BENTON

Design in relation to the home. House planning and landscaping, interior decoration, study of period furnishing and furniture and their influence today, through illustrated lectures, research and original problems. Prerequisite: 6A.
Three units; second semester.

95B. Home Decoration BENTON

Advanced study of decorative textiles and furniture with problems in modern interior decoration. Prerequisite: 95A.
Two units; second semester. (Not offered in 1928-1929.)

115A-115B. Life Drawing and Painting BENTON, MOON

115A—Pose drawing from the figure.

115B—Illustration.

Prerequisite: Art A-B.

Two units; both semesters. (Not offered in 1928-1929.)

Teacher-Training Courses

See Education: XIX, Art in the Elementary School; CXIX, Art in the Junior High School. See, also, Industrial Arts, 61A.

FOREIGN LANGUAGE

The Major in a Foreign Language (lower division): Required: 16 units of credit in the language chosen for the major. Recommended: History 4A-4B.

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.

Elementary German

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

A. Elementary German HEIMERS

Five units; first semester.

B. Elementary German HEIMERS

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 HEIMERS

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 HEIMERS

Second semester; same as C. Prerequisite: German C with a grade of C or four years of high school German.

Three to five units; second semester.

Elementary 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 HEIMERS, PHILLIPS

Five units; first semester.

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

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

SD. French HEIMERS
Scientific French. Prerequisite: French C or four years of high school French.
Two units; second semester.

101A-101B. French E. M. BROWN
Conversation and Composition. Prerequisite: French D, or its equivalent, with grade of C.

102A-102B. Introduction to French Classics E. M. BROWN
Prerequisite: French D or its equivalent.
Three units; both semesters. (Not offered in 1928-1929.)

105A-105B. Modern French Drama E. M. BROWN
Plays of Musset, Scutere, Angier, 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 1928-1929.)

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 resúmes; dictation; introduction to contemporary prose writers; study of the principles of Spanish prosody, with memory work.

A. Elementary Spanish L. P. BROWN, PHILLIPS
Five units; first semester.

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

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

C. Intermediate Spanish L. P. BROWN, PHILLIPS
Prerequisite: Spanish B or three years of the high school course in Spanish, or its equivalent.
Three units; first semester.

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

101A-101B. Spanish L. P. BROWN
Conversation and composition. Prerequisite: Spanish D, or its equivalent, with grade of C.

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 1928-1929.)

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 1928-1929.)

110A-110B. Novel and Short Story in Spain L. P. BROWN
This course will trace the development of the novel and short story in Spain from 1830 to the present time.
Prerequisite: A grade of C in Spanish D or permission from the instructor.
Three units; both semesters. (Not offered in 1928-1929.)

GEOGRAPHY

The major in Geography (lower division): Geography 1, 2, 3, Geology 1A. Recommended: A reading knowledge of French or German.

The major (upper division): Fifteen units from upper division courses in Geography completed in the junior and senior years.

In addition to the foregoing requirements two units must be chosen from lower or upper division courses in Geography and nine units (six in the upper division) from the following list of subjects in consultation with the chairman of the department: Anthropology, Economics, Botany, Zoology, Physics, Chemistry, Astronomy, History of Europe, History of the Americas.

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 with regard to different stages of development. Prerequisite: Geography 1 or 1A.
Geography 2, three units; either semester.
Geography 2A, two units; either semester (for teacher-training students).

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

4. Advanced Meteorology BLAKE
A continuation of Meteorology 3. In addition, this course discusses cyclones and anticyclones, their causes, paths and life histories. Weather maps will be made and lectures given on forecasting, applied meteorology and recent developments in predictions. Prerequisite: Meteorology 3.
Two units.

17. 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.

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 3.
Two 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.

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.

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

Geology 1A. SUHL
General geology. A study of the surface features of the earth, agencies and processes of change and evolution of topographic forms.
Three units; first semester.

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

HISTORY

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.

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, \$1.75.
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.

111A-111B. Ancient History LESLEY
A. Greek history to the Roman conquest. B. Roman history to the sixth century.
Three units; both semesters. (Not offered in 1928-1929.)

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

145A-145B. Europe Since 1789 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.

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, 1880-1927.
Three units; both semesters. (Not offered in 1928-1929.)

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 1928-1929.)

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.

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.
Three units; both semesters. (Not offered in 1928-1929.)

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 1928-1929.)

HOME ECONOMICS

Household Art

The Major in Household Art (lower division) required: High school courses in Botany and Chemistry or equivalents; Household Art 1A-1B; Art 6A-6B; History 4A-4B or equivalents. Recommended: Economics 1A-1B, Art 12, Psychology 2A-2B, French or German; high school courses in Clothing, Freehand and Mechanical Drawing. History 4A-4B is not required of students who present credit for three years of high school History.

1A. Clothing LANDERS
A study of clothing problems. The hygiene, artistic and economic aspects of clothing. One lecture or recitation and two laboratory periods per week. Prerequisite: Art 6A, which may be taken concurrently with this course.
Three units; first semester.

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

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 reading and theme writing required. Lectures, class discussion, recitations.
Two units; either semester. (Not offered in 1928-1929.)

2B. Home Accounting COLDWELL
Basic principles of administering household finances. Budgeting the moderate income; keeping accounts; banking methods; home management. Saving and investing.
Two units; second semester. (Not offered in 1928-1929.)

3. Millinery LANDERS
Making of hats, frames, trimmings, etc. Application of principle of design. Prerequisite: Art 6A. Art 6A may be taken concurrently with this course. Recommended: Art 6B.
Two units; first semester. (Not offered in 1928-1929.)

Household Science

The Major in Household Science (lower division): Household Science 1A-1B, Chemistry 1A-1B, S, Economics 1A-1B.

1A. Food Economics

LANDERS

Principles of selecting and preparing foods. A study of Composition, production, preservation, nutrition value, digestibility, flavor and cost of foods. One lecture or recitation and two laboratory periods per week.
Three units; first semester.

1B. Food Economics

LANDERS

Principles of diet applied to individual family and special group. The planning and serving of meals. One lecture or recitation and two laboratory periods per week.
Three units; second semester.

2. Dietetics

LANDERS

An analysis of food with special reference to needs of special group. Prerequisites: Food Economics 1A-1B.
Two units; second semester.

HYGIENE

1. Hygiene and First Aid

C. E. PETERSON

An informational course in personal and community Hygiene required of all men in the freshman year taking work in the Liberal Arts curricula. The course includes a study of Sex Hygiene and of the Hygienic Principles of Exercise, Bathing and Sleep. Civic Hygiene is vitalized through investigations by each student of special topics, the means by which the health of the local community is protected and improved, providing subjects for special study. Lectures, reference reading, special topics, discussions, oral and written quiz.
One unit; either semester.

2. Hygiene and First Aid

TANNER

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

INDUSTRIAL ARTS

A special junior high credential in Shopwork may be obtained as well as general junior high degree in four years attendance if electives are carefully chosen. For requirements for a teaching credential in occupations and Home Mechanics see page 20.

1. Woodwork (Benchwork in Wood)

DESILVA

Five hours per week.
Two units; second semester.

2. Painting and Finishing

SCUDDER

Prerequisite: 1A-1B. Five hours per week.
Two units; second semester.

3. Mechanical Drawing

DESILVA

Nine hours per week.
Three units.

4. Wood Turning

SCUDDER

Prerequisites: 1A-1B, 2. Five hours per week.
Three units.

5. Cabinet Work

SCUDDER

Prerequisites: 1A-1B, 2, 4. Nine hours per week.
Three units; second semester.

6. Upholstering

SCUDDER

Prerequisites: 1A-1B, 2, 3. Five hours per week.
Two units.

7. Concrete Work

DESILVA

Five hours per week.
Two units; first semester.

8A. Pattern Making

SCUDDER

Five hours per week.
Two units; first semester.

8B. Pattern Making

SCUDDER

Prerequisite: 8A. Five hours per week.
Two units; second semester.

9. Sheet Metal

DESILVA

Prerequisite: 3. Five hours per week.
Two units.

11. Shop Drawing; Linear and Shadow Perspective

Prerequisite: 3. Nine weeks.
One unit; second semester. Five hours per week.

12. Machine Drawing

Prerequisite: 3. Nine hours per week.
Three units.

13. Automobile Mechanics

DESILVA

Ten hours per week.
Four units.

18. Lettering

DESILVA

Prerequisite: 3. Three hours per week.
One unit.

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.

116. Auto Repair

DESILVA

Prerequisites: 13, 14, 15. Ten hours per week.
Four units.

117. Advanced Cabinet Work

SCUDDER

Prerequisite: 5. Ten hours per week.
Four units.

Teacher-Training Courses

See Education CXXII, Organization of Industrial Arts; and CXXIII, Teaching Industrial Arts.

MATHEMATICS

The Major in Mathematics (lower division) required: Mathematics 3A, 3B, 5A-5B, and 6. Recommended: Physics 2A-2B or 1A-1B and a reading knowledge of French and German.

C. Plane Trigonometry

LIVINGSTON

Logarithms, solution of triangles, trigonometric functions and relations. Prerequisites: One and one-half years of high school Algebra.
Two units; second semester.

1. Intermediate Algebra

LIVINGSTON

Functions and graphs, theory of quadratic equations, binomial theorem, logarithms, progressions. Prerequisites: One and one-half years of high school Algebra.
Two units; first semester.

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 1.

Three units; first semester.

3A. Introduction to Analysis

LIVINGSTON, MCINTYRE

An introduction to the fundamental ideas of differential and integral calculus, together with a wide range of applications. Through separate sections, the course ministers to the particular needs of students in Letters and Science and in Engineering. Prerequisites: Plane Trigonometry and one and one-half years of high school Algebra.

Three units; first semester.

3B. Analysis

LIVINGSTON, MCINTYRE

Analytic geometry, differentiation of algebraic and transcendental functions, and applications. Separate sections for students in Letters and Science and in Engineering. Prerequisite: Mathematics 3A.

Three units; second semester.

4A-4B. Engineering Mathematics

STOVAL

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 and 3B.

Three units; both semesters.

6. Introduction to Projective Geometry

LIVINGSTON

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

Three units; second semester.

101. Elementary Geometry for Advanced Students

The critical parts of geometry are examined from the point of view of higher mathematics. Primarily for prospective teachers. Prerequisites: Mathematics 3A, 3B and 6.

Three units; first semester. (Not offered in 1928-1929.)

102. Elementary Algebra for Advanced Students

The critical parts of Algebra are examined from the point of view of higher mathematics. Primarily for prospective teachers. Prerequisites: Mathematics 3A and 3B.

Three units; second semester. (Not offered in 1928-1929.)

111. Theory of Equations

LIVINGSTON

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

Three units; first semester.

112. Analytic Geometry of Space

LIVINGSTON

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

Three units; second semester.

MUSIC

The major in Music (lower division): Music 1A-1B, 3A-3B, 4A-4B, and 5A-5B. These courses are arranged with a particular view to offering everything included in the required preparation for the Secondary Credential in Music. Special arrangements will be made for the required work in "applied music"—voice, piano, organ, and other instruments.

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

The first semester of this course, specially designated "Music Fundamentals," is a prerequisite to all courses training for music teaching.

Two units; both semesters.

1C-1D. Sight Singing and Ear Training, Advanced

L. D. SMITH

Two units; both semesters. (Not offered in 1928-1929.)

2A. Appreciation of Music

BEIDLEMAN

How and of what music is made. How to listen to, enjoy, and appreciate it. Illustrated with numerous phonograph records. A general, fundamental, and non-technical course, requiring no previous musical training or background.

Two units; either semester.

3A-3B. History of Music

BEIDLEMAN

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 actually listening to examples of it.

Two units; both semesters.

4A-4B. Harmony (Elementary)

L. D. SMITH

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.

5A-5B. Applied (Advanced) Harmony

BEIDLEMAN

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.

7A. 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.

8A. Orchestration

BEIDLEMAN

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

Two units; second semester.

Musical Organizations

L. D. SMITH

Treble Clef (Women's) Glee Club

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

Men's Glee Club

BEIDLEMAN

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

Orchestra

BEIDLEMAN

One-half unit; either semester.

Teacher-Training Courses

See Education: XVII, Music in the Elementary School; CXXVII, Music in the Secondary School.

ORIENTATION

A. G. PETERSON

An orientation course planned to furnish educational guidance and to encourage a scientific attitude in the analysis and solution of problems in the field of human engineering. Lectures and collateral reading. Required of all freshmen in the College of Liberal Arts.

Two units; either semester.

PHYSICAL EDUCATION

The Group Major in Physical Education and Hygiene (lower division) required: High school Chemistry, Biology 10A-10B. Physiology A. Economics 1A-1B. Psychology 2A. Recommended: German or French, Public Speaking 1A-1B.

C. E. PETERSON

Physical Education for Men

A two-hour course required for the two years of lower division work. Physical examination is given each student when entering and special attention is given to correcting postural faults. In addition to the body building work given in the class

periods, physical efficiency tests embracing agility, defense and swimming are given each semester. During the two years a playing knowledge of the major and minor sports is given and fundamentals of boxing and wrestling taught each student.

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

Physical Education for Women

TANNER, RAW

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

- Intra-mural sports are encouraged, particularly those of inter-class nature.
- 52A-52B. Physical Education. Prescribed courses for freshmen.
- One-half unit; both semesters.
- 52C-52D. Physical Education. Prescribed courses for sophomores.
- One-half unit; both semesters.

51. 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.

52. Play Activities

TANNER

The required Physical Education for the second semester consists of intensive playing of a large range of games. The course does not deal with highly specialized athletics. (For teacher-training students.)

One-half unit; either semester.

53. Administration of Physical Education Program in Elementary and Junior High Schools

TANNER

Materials and methods noted in the state program of Physical Education are studied. Emphasis is placed upon athletic tests, group activities under student leadership, the administration of the "relief" and play periods and the means of securing better postures. Standards and practices in health measurements as applicable to elementary school children, and the treatment of school emergencies are included. Lectures, demonstrations and individual study of important problems. (For teacher-training students.)

Two units; either semester.

101. First Aid and Bandaging

C. E. PETERSON

Proper care of injuries received on the playground and athletic field. Methods of bandaging and first principles of massage used in athletic training.

One unit; first semester.

Teacher-Training Courses

See Education: CLI, Methods in Formal Activities; CLII, Theory of Teaching and Leadership in Physical Education; CLIII, Methods in Play Activities; CLIV, Administration of Physical Education; Program in Secondary Schools; CLV, Practice Teaching in Physical Education; CLVI, Methods in Coaching Competitive Athletics.

PHYSICS

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.

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, problem sets and experimental laboratory work. Two lectures 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.

107. Electrical Measurements

BAIRD

Devoted mainly to the study of potentiometer methods, capacity, inductance, resistance, and magnetic flux. One lecture and two laboratory periods each week. Prerequisite: Eight units in physics.

Three units; first semester.

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

COY

A. Human Physiology

A study of the human body. Lectures and laboratory exercises on the physiology of the several systems of organs with emphasis on the applications to hygiene and physical education. A brief survey of human histology and a vertebrate dissection furnish the necessary facts of structure. An elective for teachers college students, classified as a natural science.

Four units; first semester.

POLITICAL SCIENCE

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.

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.

101. Constitution of the United States

W. E. JOHNSON

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

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

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.

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.

ZOOLOGY

(See Biological Science.)