

San Diego State College

BULLETIN

Announcement of Courses

1927-1928



June, 1927

CALIFORNIA STATE PRINTING OFFICE
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SACRAMENTO, 1927

STATE TEACHERS COLLEGE OF SAN DIEGO
Administered Through
 DIVISION OF NORMAL AND SPECIAL SCHOOLS
 OF THE
 STATE DEPARTMENT OF EDUCATION

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 ex officio Director of Education
 SAM H. COHN - - - Deputy Director of Education

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 ARTHUR G. PETERSON - - Dean of Liberal Arts and Dean of Men
 MRS. ADA HUGHES COLDWELL - - Dean of Women
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The Educational Quarterly Bulletin

OF THE

State Teachers College of San Diego

Volume Fifteen

JUNE, 1927

No. 2

ANNOUNCEMENT OF

Courses of Instruction

OFFERED IN

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

1927-1928

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

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DEPARTMENTAL ORGANIZATION.

Anthropology	E. L. Hewett
Agriculture and Nature Study	W. T. Skilling
Botany	G. V. Coy
Chemistry	L. F. Pierce
Economics	A. G. Peterson
Education	W. E. Johnson
Engineering	S. L. Stovall
English	I. E. Outcalt
Fine Arts	M. L. Benton
Foreign Language	L. P. Brown
Geography	V. B. Clark
History	C. B. Leonard
Home Economics	M. E. Landers
Industrial Arts	C. R. Scudder
Mathematics	G. R. Livingston
Music	L. D. Smith
Physical Education—Men	C. E. Peterson
Physical Education—Women	J. R. Tanner
Physics	O. W. Baird
Psychology	G. S. Bell
Zoology	M. E. Johnson

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, 1888-1891; A.B., Stanford University, 1896; M.A., Stanford University, 1897; graduate student, Stanford University, 1897-1898; Head Department of English, San Diego High School, 1907-1912; travel in Europe, 1910-1911; research work, Stanford University, 1921-1922. (Appointed September 1, 1912.)

ARTHUR G. PETERSON, Dean of Liberal Arts, ex officio in general charge of lower division studies and Dean of Men. 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, Head Home Economics Department. 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, 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 Assistant 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, Assistant Professor of Physics. A.B., University of Wisconsin; M.A., University of California; Instructor in Physics, University of Washington, one year; Head Department of Science, Tacoma High School, six years. (Appointed September 1, 1921.)

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 McPIKE 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 French. 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.)

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

GEORGIA V. COY, 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 Teaching 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.)

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, Instructor in Physical Science. 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 HELMERS, 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 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, Bakerfield, California. (Appointed September 1, 1924.)

CHARLES B. LEONARD, Associate Professor of History. A.B., M.A., 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.)

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.)

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. (Appointed September 1, 1923.)

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

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.)

*On leave of absence, 1927-1928.

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

ALVENA SUHL, Assistant in Geography. A.B., 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. Graduate Boston Normal School of Gymnastics; B.S., Columbia University; Bachelor's Teaching Diploma, Teachers College, Columbia University; tutor, Brookline, Massachusetts; Graduate Student, University of California, 1925. (Appointed July, 1904.)

FRANKLIN D. WALKER, Public Speaking and 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, Commerce. B.S., University of California; graduate study, one year, University of California; Head Department of Commerce, Union High School, Visalia, California, 1917-1921. (Appointed September 1, 1921.)

Special Lecturers 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.)

*On leave of absence, Fall semester, 1926-1927.

Teaching Fellowship.

EDITH MILLS SCOTT, Training School.

Assistants in Physical Education.

H. G. BRUCKER, Freshman Football, Basketball and Baseball.

A. J. DOUGLAS, Football.

THOMAS McMULLEN, Basketball.

LEE WAYMIRE, Baseball.

Student Assistants.

HELEN BANKERD, History.

NARCISSA DELANO, Training School Office.

F. W. DE SILVA, Industrial Arts.

EDNA HANIGAN, Training School Office.

RUTH HANIGAN, Training School Office.

DOROTHY HARRISON, Registrar's Office.

E. KNEIP, Chemistry.

MARY MAULL, Education.

EUNICE L. MAW, Secretary's Office.

J. E. MILBERY, Chemistry Storekeeper.

B. E. MONROE, Chemistry.

ELSIE MORIARTY, Fine Arts.

THOMAS NEWMAN, Physics.

ZILLAH M. RYAN, Tests and Measurements.

FRANCES WHELAN, Physics.

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.

GENERAL INFORMATION.

CALENDAR, 1927-1928

Summer Session, 1927

June 27-August 5, Term I.

August 8-August 30, Term II.

First Semester, 1927-28

September 6, 8:00 a.m., College Aptitude Test.
 September 6, 1:30 p.m., Assembly of New Students.
 September 7, 8:00 a.m., Examination in Subject A (English Composition).
 September 7, 10:30 a.m., Assembly of New Students.
 September 7, 1:30 p.m., Fundamentals Test.
 September 7, 3:00 p.m., Assembly of New Students.
 September 8, 8:00 a.m., Social Relations Test.
 September 8, 10:30 a.m., Assembly of New Students.
 September 8, 1:30 p.m., Foreign Language Placement Test.
 September 8, 3:00 p.m., Assembly of New Students.
 September 9, 8:00 a.m., Biology and Botany Placement Test.
 September 9, 9:00 a.m. to 4:00 p.m., Registration of Old Students.
 September 10, 9:00 a.m. to 4:00 p.m., Registration of New Students.
 September 12, Class Work Begins.
 December 17, Christmas Recess Begins.
 January 1, Christmas Recess Ends.
 January 26-January 31, Mid-Year Examinations.
 February 1, Mid-Year Graduation Exercises.
 February 2-6, Mid-Year Recess.
 February 2, 8:00 a.m., College Aptitude Test.
 February 2, 1:30 p.m., Assembly of New Students.
 February 3, 8:00 a.m., Examination in Subject A (English Composition).
 February 3, 10:30 a.m., Assembly of New Students.
 February 3, 1:30 p.m., Fundamentals Test.
 February 3, 3:00 p.m., Biology and Botany Placement Test.
 February 3, 9:00 a.m. to 4:00 p.m., Registration of Old Students.
 February 4, 8:00 a.m., Social Relations Test.
 February 4, 10:30 a.m., Foreign Language Placement Test.
 February 6, 9:00 a.m. to 4:00 p.m., Registration of New Students.
 February 7, Class Work Begins.
 April 1-8, Spring Recess.
 May 1, Dedication Day.
 June 15, Annual Commencement Exercises.

Summer Session, 1928.

June 25-August 3, Term I.

August 6-August 29, Term II.

THE CALENDAR AND REGISTRATION.

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

The Summer Session meets the needs of regular students who wish to gain credits toward the professional diploma or the A.B. degree, of teachers in service who wish further professional training and of 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 from September 8 to September 10. 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 the Junior High School with special recommendation in English, Social Science, Natural Science, Mathematics, Fine Arts, Industrial Arts, Home Making, Music, and Physical Education. The degree B.A. (major in Education) is granted to students completing the four-year courses in elementary and junior high school education.

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

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

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 Director 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 Men; 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:

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), and The Del Sudoeste (year book).

APPOINTMENT SERVICE.

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

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

FEES AND EXPENSES.

Tuition is free to all students.

Registration fee, each semester (not returnable)	\$1 50
Student body fee, each semester (not returnable)	5 00
Men's and women's organizations, each (not returnable)	50
Class fee	50
Part-time (special student's) fee	5 00
Late registration fee	2 00
Fee for additional transcript	1 00

COURSE CHARGES.

(Payable each semester)

Syllabi	\$0 50
Biology	3 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)	2 50
Drama 55A, 55B, 55C, 55D	2 50
Fine Arts (Advanced Design, Costume Design, Stage Craft)	1 00
Household Art (Clothing, Millinery)	1 00
Household Science (Dietetics, Food Economics)	4 00
Industrial Arts 10	1 00
Pattern Making	4 00
Industrial Arts 1A-1B, 6, 7, 9	2 00
Industrial Arts 4, 5	3 00

Industrial Arts 2	4 00
Physical Education (men)	1 00
Physics (each course, except 2A-2B)	5 00
Physiology	1 00
Surveying	5 00
Zoology	2 00

EXPENSES: WOMEN STUDENTS

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

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

The minimum expense for one semester of eighteen weeks is estimated at \$210; Board and room, \$180; books, paper and other necessary materials, \$15; registration and student-body fees, \$7.50; laboratory fees, \$1 to \$10. Clothing, laundry, car-fare, recreation and personal incidentals are factors for the student to decide, but it is suggested that clothing be of the simplest type, such as gingham dresses, one-piece woolen dresses, one warm outside coat, and a very informal afternoon or evening dress with suitable accessories.

SELF HELP AND LOAN FUND

Opportunities for part-time employment for students not residents of San Diego are frequent, particularly in the 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 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 "greater college" or the "greater university" must be present in a college or university city, if the student is to work in a genuinely cultural atmosphere. In cultural standards in art, music, literature, and science, San Diego is an eligible college city because while it is not a large city yet it has certain metropolitan advantages for the student. Many of these are to be found in the

heritage resulting from the San Diego Exposition of 1915-1916, including the buildings themselves, which in their consistent and effective carrying out of motifs of the best types of Spanish colonial art, make up one of the finest exhibits in architecture in America. Housed in these buildings are exhibits in anthropology and culture history which are unsurpassed in certain fields, together with natural history collections, and materials for the study of American archaeology. There is complete 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 pre-engineering courses in the Liberal Arts division will benefit greatly because the selection of San Diego by the United States Navy as the site of important navy activities, such as the Marine Base, the Naval Training Station, Naval Aviation and the Destroyer Force Base, has made available a great deal of machinery, material and equipment useful for study and observation, especially in the field of electrical engineering.

The 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

a) A graduate of a California high school may enter either the Teacher-Training or the Liberal Arts division of the San Diego State College without examination in preparatory subjects, provided the following requirements are satisfied:

1. The candidate must be duly certified as a graduate of an accredited California high school.
2. The graduate must have completed a four-year high school course aggregating at least 15 standard units of preparatory work, including the following requirements for graduation prescribed by the

California State Board of Education: English, 3 units; United States History and Civics, 1 unit; Laboratory Science, 1 unit; and two majors of at least 3 units each—a major consisting of three years of study in one of the following groups: (a) English (in vocational courses 1 unit of Citizenship may be included with 2 units of English to make one major); (b) Mathematics, including Mechanical Drawing; (c) History and Social Science; (d) Physical and Biological Sciences; (e) Foreign Language—3 or more units in one language, or 2 units in each of two languages.

3. The candidate must be specially recommended for admission to the San Diego State College on the basis of a scholarship record that satisfies the prescribed requirements for admission to the University of California.

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

- b) A candidate from a secondary school outside California that is accredited by the New England College Entrance Certificate Board, by the North Central Association of Colleges and Secondary Schools, or by other colleges and universities of recognized standing will be admitted to freshman standing provided he has satisfied the requirements in (2) above, and has maintained an average scholarship standing well above the mark required by the school for graduation.
- c) A graduate of a California secondary school not accredited who is strongly recommended by the principal of his school will be admitted to freshman standing provided he satisfactorily passes examination in at least 8 units of work selected from subjects prescribed for graduation by the California State Board of Education. Other candidates who are unable to present satisfactory school certificates may be admitted by successfully passing examinations in at least 12 standard high school units.

Certificates of successful examinations before the College Entrance Examination Board will be accepted in lieu of matriculation examinations conducted by the San Diego State College. The entrance examinations of the Board are held in June each year (in California, at Berkeley, Los Angeles, San Diego, and other places). Applications for examinations must be addressed to the College Entrance Examination Board, 431 West 117th street, New York. They must be made upon a blank form to be obtained from the Secretary of the Board upon request.

All students entering the college are required to take the following examinations, mainly for purposes of guidance and assistance: (a) College Aptitude Test. (b) Fundamentals Test (reading, spelling, arithmetic, etc.). (c) English Composition. (d) Social Relations Test. (e) Speech Test. (f) Physical Examination. Exceptions may be made for special students who register for six units of work or less.

MATRICULATION REQUIREMENTS FOR CERTAIN CURRICULA

In complying with the foregoing requirements for freshman standing it is strongly urged that the following preparatory subjects be included for admission to the curricula for the A.B. degree (Major in Education) and to the Liberal Arts curricula leading to certificates in the curricula in Letters and Science, Commerce, Journalism and in the Premedical, Predental and Prelegal curricula:

English	3 units
A Foreign Language ¹	2 units
A Laboratory Science ²	1 unit
Algebra	1 unit
Geometry	1 unit
United States History and Civics	1 unit
Electives ³	6 units

¹Two units of French or German are required for admission to the Premedical curriculum.

²Chemistry is required for admission to the curriculum in Letters and Science when the candidate intends to specialize in Home Economics, Physical Education and Hygiene. Chemistry and Physics (2 units) are required for admission to the curricula for the A.B. degree (major in education) when the candidate intends to specialize in General Science and Biology in the Junior High School, to the Premedical curriculum, and to the curriculum in Letters and Science when the candidate intends to specialize in public health, nursing or in a natural science except Botany. Physics is recommended, but not required for students who intend to specialize in Zoology.

³Algebraic Theory ($\frac{1}{2}$ unit) and Trigonometry ($\frac{1}{2}$ unit) are required for admission to the Commerce curriculum and the curriculum in Letters and Science when the candidate intends to specialize in Mathematics.

The following preparatory subjects are required for admission to the Liberal Arts curricula leading to certificates in Engineering (Mechanical, Electrical, Civil or Chemical), and in Agriculture and Architecture.

English	3	units
Elementary Algebra	1	unit
Algebraic Theory	$\frac{1}{2}$	unit
Plane Geometry	1	unit
Trigonometry	$\frac{1}{2}$	unit
Physics ⁴	1	unit
Chemistry	1	unit
United States History and Civics	1	unit
Mechanical Drawing ⁴	1	unit
Electives ⁴	5	units

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

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

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

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

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

GENERAL REGULATIONS

REGISTRATION

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

A fee of one dollar is charged for a change in the study list after the close of the regular registration period.

MATRICULATION

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

⁴Physics and Mechanical Drawing are recommended but not required for admission to the curriculum in Agriculture.

⁴French or German (2 units) is required for admission to the curriculum in Industrial or Engineering Chemistry.

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

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

CLASSIFICATION

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

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

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

For convenience in administration students who have completed 28 to 63 units of work are classified as sophomores; those who have completed 64 to 91 units are juniors; and those who have completed 92 or more units are seniors.

UNITS OF WORK AND STUDY-LISTS LIMITS

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

Sixteen hours, or units, per week of recitation or lectures, or an equivalent in laboratory work, constitute an average semester's program. During the first semester of work at the College no student will be permitted to register for more than 16 units of work in addition to physical education. After his first semester of work, a student is ordinarily not permitted to register for less than 12 nor more than 18 unit-hours of new work, in addition to physical education, unless permission is given in advance by the proper study-lists officer. Ordinarily not more than 16½ units, in addition to physical education, will be carried toward graduation for the work of any semester, except under the following conditions: a program of 17 units, in addition to physical education, will be credited provided the student was registered for at least 12 unit-hours 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.

SPECIAL SUBJECT REQUIREMENTS

ENGLISH COMPOSITION

All entrants to the College are required to take a special examination in elementary English composition. No student who has failed to pass this examination or to meet an equivalent requirement will be given a certificate in any curriculum. All students who do not pass in the examination in Subject A are required to take a course in remedial English for which a fee of \$10 is charged. This course is given three hours a week each semester.

PHYSICAL EDUCATION AND HYGIENE

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

Credit for work in Hygiene (1 or 2) is required in the freshman or the sophomore year.

SCHOLARSHIP GRADES AND GRADE POINTS

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

Grade points are assigned as follows: Grade A, 3 points per unit; B, 2 points per unit; C, 1 point per unit; D, no points; E, minus 1 point per unit; F, minus one point per unit. Removal of grade E or F will entitle the student to a cancellation of the "negative grade points" and a grade of D for the course.

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 E is also used to record work which may be of higher order but

which is incomplete for some acceptable reason. This is done only at the written request of the instructor, filed with the Registrar before the grade E is recorded. As in the former case 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.

THE DEGREE COURSES

Following is the general pattern of minimum requirements prescribed by the State Board of Education for the degree Bachelor of Arts. The details of the requirements at this College are found on pages 19-21.

LOWER DIVISION (Freshman and Sophomore Years)

I. Required	40 units
1. Psychology	6 units
2. Social Sciences	12 units
a) Contemporary Civilization	
b) Economics	
c) Political Science	
d) Sociology	
e) Geography	
3. Biological and Physical Sciences	12 units
4. English (including oral English)	6 units
5. Physical Education	4 units
	40 units
II. Required Group Electives ¹	24 units
1. English	
2. History	
3. Political Science	
4. Sociology	
5. Education ²	
6. Biological Sciences	
7. Philosophy or Psychology	
8. Mathematics	
9. Physics	
10. Chemistry	
11. Geography	
12. Greek or Latin	
13. Romanic Languages	
14. Art	
15. Music	
16. Agriculture	
17. Commerce	
18. Physical Education	
19. Industrial and Mechanical Arts	
20. Home Economics	

UPPER DIVISION (Junior and Senior Years)

III. For all degree courses leading to high school certification of teachers of special subjects, the minimum number of units of professional work shall be the same as the minimum number prescribed by the State Board of Education for the certification of high school teachers; the minimum number of professional units for all degree courses leading to elementary certi-

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

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

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

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

fication shall be 24; and for all types the maximum number of professional units shall be 40.

Every degree course leading to elementary school certification shall include adequate preparation in the statutory school subjects,* and not less than eight semester hours in practice teaching.

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

Total 124 units

*School Law, 1925, section 1665: "Subjects to be taught in the elementary schools. The course of study in the elementary schools of each city, county, and city and county shall include instruction in the following branches in the several grades in which each may be required in the course of study adopted in pursuance of this section, viz: (1) reading, (2) writing, (3) spelling, (4) language study, (5) arithmetic, (6) geography, (7) history of the United States and California, (8) civics, including a study of the constitution of the United States, (9) music, (10) art, (11) training for healthful living, (12) morals and manners."

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

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

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

GRADUATION

For the A.B. degree a minimum of 124 units is required. These are to be arranged according to one of the plans for the professional courses, at least 24 units of which must have been done in residence at this College of which 12 units must have been earned in the last semester before graduation. The latter provision shall not apply to graduates from the elementary course of the College until September 1, 1929. For the requirements of the major in education in the Letters and Science curriculum see pages 22-23.

For the elementary diploma a minimum of 96 units is required according to the pattern for that course. At least 16 units must be done in residence at this college, 12 of which must be earned in the last semester before taking the diploma.

For the junior certificate a minimum of 64 units is required according to an approved pattern of which at least 12 units have been done in residence.

PROFESSIONAL COURSES

THE ELEMENTARY DIPLOMA COURSE

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
Electives ¹	15
Total	32

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 and three units in American History unless the student presents recommended grades in these subjects from high school. Electives in the Junior Year must include a minimum of four units in upper division courses in the Liberal Arts curricula.

Sophomore Year

	Units of Credit
Psychology 2A and 2C	6
Primary Curriculum, Ed. IIA ²	2
Children's Literature, Ed. XIV	2
Music in the Elementary School, Ed. XVII ³	2
Art in the Elementary School, Ed. XIX ³	2
Physical Education, LII, LIII, 52C or 52D	3
Electives ¹	15
Total	32

Junior Year

Elementary School Curriculum, Ed. CIV	3
Educational Measurements, Ed. CVIII	3
Educational Psychology	2
Practice Teaching, Ed. CXVI	8
United States Constitution (Pol. Sci. 101) and the Public School System	3
Electives ¹	13
Total	32

CURRICULA FOR THE A.B. DEGREE

ELEMENTARY SCHOOL COURSE

Freshman Year

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
Electives ¹	15
Total	32

Sophomore Year

Psychology 2A and 2C	6
Primary Curriculum, Ed. IIA ²	2
Children's Literature, Ed. XIV	2
Music in the Elementary School, Ed. XVII ³	2
Art in the Elementary School, Ed. XIX ³	2
Physical Education, LII, LIII, 52C or 52D	3
Electives ¹	15
Total	32

Junior Year

Elementary School Curriculum, Ed. CIV	3
Educational Measurements, Ed. CVIII	3
Educational Psychology	2
Electives ¹	22
Total	30

Senior Year

United States Constitution (Pol. Sci. 101) and the Public School System	3
Principles of Elementary Education, Ed. CVI	3
Practice Teaching, Ed. CXVI	10
Electives ¹	14
Total	30

¹See footnote page 18.

²In certain exceptional cases this course will not be required, especially when students are qualifying for special credentials.

³Students who are not specially proficient in Music and Art or who have not had courses in these subjects in high school will be required to elect Music Coach XVI and Art Coach XVIII as prerequisites.

JUNIOR HIGH SCHOOL COURSE

Freshman Year

	Units of Credit
English	6
Orientation	1
Introductory Principles of Education I	3
Physical Education	1
Electives ¹	21
Total	32

Sophomore Year

Psychology 2A and 2C	6
Physical Education LII, LIII, 52C or 52D	3
Electives ¹	23
Total	32

Junior Year

Elementary School Curriculum, Ed. CIV	3
Educational Psychology	2
Educational Measurements, Ed. CVIII	3
Electives ¹	22
Total	30

Senior Year

United States Constitution (Pol. Sci. 101) and the Public School System	3
Principles of Junior High School Education and Guidance, Ed. CI	3
Practice Teaching, Ed. CXVI	10
Electives ¹	14
Total	30

The Junior High School requires departmental teachers who have specialized in particular fields. The electives of this course together with the required subjects, must be so patterned as to include a major of 24 units of credit in each of two fields, or a major in a given field and a minor of 12 units in each of two other fields.

For a special recommendation to teach General Science and Biology in the Junior High School, the applicant should satisfy the requirements outlined in the foregoing course and should include in his course a minimum of 40 units of science selected from the following list with the approval of the science staff.

*1. Biology 10A-10B	6
*2. Botany 2A-2B	8
*3. Botany 4	4
*4. Zoology 1A-1B	8
5. Embryology	2
6. Astronomy 1	3
†7. Physics 2A-2B	6
†8. Physics 3A-3B	2
9. Chemistry	10
10. Anthropology 1A-1B	4
11. Physiology CXXV	4
12. Seashore Biology 101	1
13. Heredity and Evolution	2
14. Eugenics	3
15. Bacteriology	4
16. Geology	2
17. Ecology (Bot. 101)	2
18. Meteorology	2

¹²³ See footnotes to the Elementary Diploma Course. At least ten of the electives in the Senior Year must be upper division courses. Not to exceed forty units of credit in courses in Education may be applied toward a curriculum leading to the degree. The electives must also include one year (six units) of mathematics unless two years of mathematics were taken in high school and one year (ten units) of a foreign language, if not previously taken in high school.

¹See footnotes to the Elementary Diploma Course and to the Elementary School Course leading to the A.B. Degree.

*Either Biology 10A-10B and Botany 4, or Botany 2A-2B and Zoology 1A-1B must be included in this list. Students who have taken Chemistry in the high school are not required to take it in college.

†Required subject.

The 32 units of Education required must include the course Education CXX, the teaching of Science in the Junior High School, and must include some practice teaching of Junior High School Science.

CURRICULA FOR SPECIAL CERTIFICATION

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

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

The requirements for special certification will be sent upon application. Curricula are offered in the following fields:

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 19 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 IN THE LIBERAL ARTS CURRICULA

LETTERS AND SCIENCE CURRICULUM

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

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, 1 unit.
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 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,* 10 units.

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

- French: Any two consecutive courses of A, B, C, D, 102A, 102B, 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: 1A-1B or 3A-3B.

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

A minimum of 36 units of Upper Division courses is ordinarily required for the degree of A.B. in Liberal Arts curricula in Class A colleges and universities. A minimum of 12 units of this requirement should be met in the junior year. The San Diego State College does not offer senior work in the Liberal Arts curricula, except in an education major.

A.B. DEGREE IN LETTERS AND SCIENCE CURRICULUM, MAJOR IN EDUCATION.

Candidates for the A.B. degree in the San Diego State College who intend to qualify for graduate work, in another collegiate institution, leading to a state teaching credential of senior high school grade are advised to major in education in the Letters and Science curriculum and to plan their course of study to meet the following requirements:

Lower Division

The following subjects should be taken as a part of or in addition to the requirements for the Junior certificate in the Letters and Science curriculum: Education I, Biology 10A, or high school Biology, Biology 10B or Zoology 1A Psychology 2A and 2B or 2C, and Economics 1A-1B or Political Science 1A-1B.

Upper Division

Education CI, CII, CIII, CIV, CVI, CVII, CVIII, CIX, CXXX, CXVI, Elementary Statistics 140A, 2 units (U.C. Ext. Div.) and Political Science 101 or its equivalent.

For graduation the student should also satisfy the requirements of two Teaching Minors of not less than 14 units each, at least 6 of which must be in upper

*One of the courses marked with an asterisk must be chosen to meet the Natural Science requirements and the Social Science requirement, respectively.
 *High school courses in Biological Sciences can not be used to meet the Natural Science requirements of the University of California.

division courses, or one Teaching Major of not less than 24 units, at least 12 units of which must be in upper division courses. A Teaching Major or Minor may be chosen from the following: English, History, Economics, French, Spanish, Chemistry, and Geography. A Teaching Minor may be chosen also from the following: Botany, Fine Arts, Mathematics, Political Science, Psychology, Zoology, Physical Education, and Music.

The remaining units necessary to meet the degree requirement of 124 units should be chosen outside the field of education, except the Teaching Minor in Physical Education.

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, 1 unit.
- 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 of Investment 2, 3 units.

(Prerequisites: Mathematics A and C, or 1A-1B, or their equivalents.

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.¹

Upper Division

Requirements for senior standing in the Commerce curriculum, besides those of the Junior Certificate, include Accounting 14A-14B, 8 units; Business Law 18A-18B, 6 units; Economic History 11, 3 units; Political Science 101, 2 units; Economic Theory 100, 2 units; Money and Banking 135, 3 units; and Elementary Statistics 140A-B, 4 units (U.C. Ext. Div.) The San Diego State College does not offer senior work in the Commerce curriculum.

PRELEGAL CURRICULUM

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

b) Electives recommended:

- History 4A-4B, 6 units.
- 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 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 requirements of the Letters and Science curriculum should be met in full.
 b) Additional requirements:
 Chemistry 1A-1B, 10 units.
 Chemistry 8-9, 6 units.
 Zoology 1A-1B, 10 units, or Biology 10A-10B, 6 units.
 Physics 2A-2B and 3A-3B, 8 units.

PREARCHITECTURAL CURRICULUM

- a) The 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 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 XXV,
 Anthropology 1A-1B, 4 units.
 Sociology 50, 3 units.
 Biology 10A-10B, 6 units; or Zoology 1A, 4 units; or Physiology XXV,
 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	5	5
Plane Surveying 1A-1B	3	3
Orientation	1	
Hygiene 1		1
Physical Education	$\frac{1}{2}$	$\frac{1}{2}$
Social Ethics		
History or Political Science	3	3
	18 $\frac{1}{2}$	18 $\frac{1}{2}$

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

	Sem. I Units	Sem. II Units
Mathematics 4A-4B	3	3
Physics 1C-1D	3	3
Descriptive Geometry 3D	3	
Geology 1A		3
English	3	3
Physical Education	$\frac{1}{2}$	$\frac{1}{2}$
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	5	5
German A-B	5	5
Orientation	1	
Hygiene 1		1
Physical Education	$\frac{1}{2}$	$\frac{1}{2}$
Social Ethics		
	17 $\frac{1}{2}$	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

Social Ethics		
Orientation	1	
Hygiene 1		1
Physical Education	$\frac{1}{2}$	$\frac{1}{2}$
Botany 2A-2B	4	4
Chemistry 1A-1B	5	5
Physics 2A-2B	3	3
English	3	3
Math. C or Elective	2 $\frac{1}{2}$	2
	17 $\frac{1}{2}$	17 $\frac{1}{2}$

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.

One-Year Course

ACCOUNTANCY

	Sem. I Units	Sem. II Units
Accounting 14A-14B	4	4
Commercial Law 18A-18B	3	3
English Composition	3	3
Business Mathematics A	1	
Typewriting 1A-1B	4	4
Social Ethics		
Hygiene	1	
Elective		2
	16	16

Two-Year Course (leading to Certificate in Accountancy)

First Year

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

Second Year

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

One-Year Course

SECRETARIAL TRAINING

Accounting 14A	4	
Shorthand 1A-1B	5	5
Typewriting 1A-1B	4	4
English Composition	3	3
Business Mathematics A		1
Office Methods 3A		3
Social Ethics		
	16	16

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
Business Mathematics A	1	
Hygiene 2		2
Physical Education	1	1
Social Ethics		
Orientation	1	
English Composition	3	3
Electives	3	3
	17½	17½

Second Year

Commercial Law 18A-18B	3	3
Office Methods 3A		3
Economics 1A-1B	3	3
Accounting 14A-14B	4	4
Psychology 2A-2B or Electives	3	3
Physical Education	1	1
Economics History 11 or Electives	3	
	16½	16½

ACCOUNTANCY AND SECRETARIAL TRAINING

First Year

Accounting 14A-14B	4	4
English Composition	3	3
Typewriting 1A-1B	4	4
Business Mathematics A	1	
Orientation	1	
Hygiene		1
Physical Education	1	1
Social Ethics		
Electives	3	3
	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	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. Credit for 64 units, or more, according to the course chosen, is required for a certificate.

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 only, except by special arrangement. Courses similar to those of the University of California are designated by the numbers used by the University.

ANTHROPOLOGY

The major in Anthropology (lower division). Anthropology 1A, 1B. The major (junior year): Anthropology 103 and 104; 6 units chosen from the following: Zoology 114, 115, Geography 121, Psychology 145.

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.

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

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

ASTRONOMY

The major in Astronomy (lower division): Astronomy 1, Plane Trigonometry, Mathematics 3A-3B, 4A-3B, 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.

BOTANY

The major in Botany (lower division): Botany 2A-2B, High School Chemistry or its equivalent.

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

Lectures, laboratory exercises and field work on the classification and ecology of plants of the San Diego region. One lecture and two three-hour laboratory periods per week.

Three units; second semester.

101. Plant Communities

A study of plants in relation to environment; the development of plant associations and the factors influencing plant distribution. Lectures, assigned readings and reports. Prerequisite: Botany 2A-2B or equivalent.

Two units; second semester.

BIOLOGY

For courses under this head see Botany, Nature Study; Physiology and Zoology.

CHEMISTRY

The major in Chemistry (lower division): Chemistry 1A-1B, with a grade of C or better. Chemistry 6A-6B, 8-9, 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 (junior year): 101, 102, 123, 124.

1A-1B. General Chemistry

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

Five units; both semesters.

6AA. Qualitative Analysis

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

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

Three units; both semesters.

8-9. Organic Chemistry

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

Three units; both semesters.

101-102. Advanced Inorganic Chemistry

The course treats of the laws and theories of elementary work from the 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

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.

ORIENTATION.

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.

One unit; either semester.

A. G. PETERSON

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.

The major (junior year): Economics 100 and 135 and six upper division units in History, Geography or Political Science.

A. Social Ethics

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

COLDWELL

1A-1B. Principles of Economics

A. G. PETERSON

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

Three units; both semesters.

11. Economic History of the United States

WRIGHT

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

Three units; second semester.

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.

100. Economic Theory

Advanced study of demand and supply, production and distribution, and economic welfare.

Two units; first 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; second semester.

122. Business Investigations and Analysis

A. G. PETERSON

Research in the field of business and industry in cooperation with the San Diego Chamber of Commerce. Prerequisite: Economics 1A-1B.

One to three units; second semester.

145. Social Psychology

(See Psychology.)

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.

1A-1B. Typewriting

AMSDEN

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

Four units; both semesters.

2A. Typewriting

AMSDEN

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

Two units; 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

WRIGHT

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

Three units; second semester. (Not offered in 1927-28.)

3A. Office Methods and Appliances

WRIGHT

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

Three units; second semester.

A. Business Mathematics

WRIGHT

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

One unit; first semester.

14A-14B. Accounting

WRIGHT

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

Four units; 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.

EDUCATION

I. Education—Introductory Principles

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.

II. 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.

Two 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.

Two 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.

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.

Three units; one semester.

CVI. Principles of 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.

Two 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.

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

CXVIII. Class Management

CORBETT

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

Two units; one semester.

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.

Two credits.

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.

XII. 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.

XIV. 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.

XVI. Music Coach

D. SMITH

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

No credit; either 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 XVI or its equivalent.

Two units; either semester.

XVIII. Art Coach

BENTON, RANKIN

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

No credit; either semester.

XIX. Art in the Elementary School

BENTON

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

Two units; either semester.

XX. Natural Science in the Elementary School

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).

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 I or IA.

Two units; second semester.

XXVI. 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.

Two units; either semester.

LXI. Elementary Industrial Arts

BENTON

Practical problems in the handling of industrial materials adapted to the grades, such as clay modeling and pottery, paper making, bookbinding, weaving, basketry, etc. Also the study of related subject matter and methods.

Three units; either semester.

COURSES FOR SECONDARY SCHOOL TEACHERS IN THE JUNIOR HIGH SCHOOL FIELD

Organization and Administration (see Education CIII, 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 phases of algebra suitable to the junior high school pupil, together with the problem of making the work useful in preparation for senior high school mathematics.

Two units; one semester.

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

NIDA

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.

CXIX. Art in the Junior High School

BENTON

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

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

CXXIV. Romance Languages

BROWN

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

Two units; one semester.

CXXV. Physiology

COY

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. Prerequisite: Junior standing.

Two lectures and two three-hour laboratory periods per week.

Four units; first semester.

PHYSICAL EDUCATION FOR TEACHERS

LI. Child Hygiene

TANNER

A course for professional students which includes:

The influencing factors of environment; prenatal and postnatal development; glands and internal secretion, their influences and reactions; growth periods; diseases, physical defects and health indices of school children; teaching of hygiene in the elementary school. Lectures, demonstrations, reports and discussions.

Two units; either semester.

LII. 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.

Note books are required in order that the student teachers may be provided with tested game material.

One-half unit; either semester.

LIII. 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.

Two units; either semester.

CL. 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. 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.

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.

8A-8B. Pattern Making

SCUDDER

The aim of this course is to acquaint the student with as wide variety of patterns as possible, in order to develop his knowledge of construction and broaden his view of the industries. Instruction is given in the principles of pattern construction, and the uses of the shrink rule, the finish allowance, draft allowance, fillet, etc. The correctness of design and necessity for the various allowances are proved by

actual moulds and castings made from one-piece and split patterns. Excursions to pattern shops and foundries. Laboratory plan.

Two units; both semesters.

1A. 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.

1. 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 (lower division): English 1A-1B, and six units from 56A-56B, 52A-52B. Recommended: A reading knowledge of German or French.

The major (junior year): A minimum of six units of upper division English, including English 117.

1A-1B. English Composition

BAGLEY, SMITH

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

Three units; both semesters.

4. Great Books

OUTCALT

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

Three units; first semester.

52A-52B. Types of Literature

OUTCALT

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

Three units; first semester.

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

Three units; second semester.

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.

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.

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 1927-28.)

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.

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.

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.

FINE ARTS

The major in Fine Arts (lower division): Art A, 1A-1B, 6A-6B, 12.
The major (junior year): Art 115A-115B.

A-B. Freehand Drawing and Sketching

BENTON

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

Two units; throughout the year.

1A. Art History and Appreciation

POLAND, MORRIS

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, MORRIS

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

Two units; second semester.

6A-6B. Art Structure

BENTON, RANKIN

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

Two units; both semesters.

12A. Advanced Design

BENTON

Problems in creative design and processes of application through batik, block-printing etc. Prerequisite: 6A-6B.

Two units; first semester.

12B. Lettering and Posters

RANKIN

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

Two units; second semester.

52. Stage Design

BENTON

Theory of line, color and lighting for stage effects. Make-up and materials for stage use. Miniature stages are used for individual problems and the designing and making of costumes and settings for some college production is the final problem. History of the development of settings leading to the art direction of today. Prerequisite: 6A.

Three units; second semester.

94A. Costume Design

RANKIN

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

RANKIN

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 1927-28.)

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; first semester.

95B. Home Decoration

BENTON

Takes up more intensive study of period styles and historic ornament. Original problems in designing furniture and fire places, and in selecting and combining textures. Prerequisite: 95A.

Two units; second semester. (Not offered in 1927-28.)

115A-115B. Life Drawing and Painting

BENTON, RANKIN

115A—Pose drawing from the figure.

115B—Illustration.

Prerequisite: Art A-B.

Two units; both semesters. (Not offered in 1927-28.)

TEACHER-TRAINING COURSES.

See Education: XVIII; Art Coach, XIX; Art in the Elementary School, CXIX; Art in the Junior High School, LXI; Elementary Industrial Arts.

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 major (junior year): A minimum of six units of upper division in the Foreign Language chosen for the major.

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, E. BROWN

Five units; first semester.

B. Elementary French

Prerequisite: French A or two years of the high school course in French, or its equivalent.

Five units; second semester.

Intermediate French

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

C. Intermediate French

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

Three units; first semester.

D. Intermediate French

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

SC. French

Scientific French. Prerequisites: French B or three years of high school French.

Two units; first semester.

SD. French

Scientific French. Prerequisite: French C or four years of high school French.

Two units; second semester.

102A-102B. Introduction to French Classics

Prerequisite: French D or its equivalent.

Three units; both semesters. (Not offered in 1927-28.)

105A-105B. Modern French Drama

Plays of Musset, Scuttre, Angier, Dumas fils, Pailleron, Brioux, 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.

Elementary Spanish

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

A. Elementary Spanish

Five units; first semester.

B. Elementary Spanish

Prerequisite: Spanish A or two years of the high school course in Spanish, or its equivalent.

Five units; second semester.

Intermediate Spanish

Reading and composition; study of standard prose as 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

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

Three units; first semester.

D. Intermediate Spanish

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

Three units; second semester.

HEIMERS, E. BROWN

L. P. BROWN, E. BROWN

L. P. BROWN, E. BROWN

HEIMERS

HEIMERS

BROWN

E. BROWN

L. P. BROWN

L. P. BROWN

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 1927-28.)

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.

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 1927-28.)

GEOGRAPHY

The major in Geography (lower division): Geography 1 or 1A, 2 or 2A, and 3. Recommended: Geology 1A.

The major (junior year); a minimum of six units of upper division work in geography.

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.

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.

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.

5. 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.

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. The 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.

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.

Three units; second semester.

141. Economic Geography

SUHL

A world-wide survey of the raw materials of world trade; their production and distribution as related to the major geographic regions of the world. Prerequisite: Geography 1 or 1A and 11 or 11A.

Three units; first semester.

Geology 1A

McINTYRE

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

McINTYRE

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.

Students who have not had at least two years of European history in the high school must take History 4A-4B or 5A-5B.

The major (junior year): A minimum of six units of upper division work in history.

4A-4B. History of Modern Europe

LESLEY

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.

Three units; both semesters.

8A-8B. History of the Americas

LEONARD

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 with the rest of the world. The course is based on H. E. Bolton's "Syllabus of the History of the Americas."

Three units; both semesters.

5A-5B. History of England

LESLEY

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.

Three units; both semesters.

171A-171B. History of the United States

LEONARD

A general course dealing, in the first semester, with English colonization in North America and the development of colonial institutions, and, in the second semester, with the political history of the United States.

Three units; both semesters.

151A-151B. Diplomatic History of Europe

LESLEY

A detailed study of the basic factors of international organization and procedure, and of European diplomatic and colonial policies. During the second semester special emphasis is placed on the period, 1880-1926.

Three units; both semesters.

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. Prerequisites: One year of high school Sewing or equivalent, Art 6A. Art 6A 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, high school Chemistry or Chemistry 1A, 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.

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.

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.

HOUSEHOLD SCIENCE

The major in Household Science (lower division): Household Science 1A-1B, Chemistry 1A-1B, 8, Bacteriology 1, 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. Prerequisites: One year of high school Cooking or equivalent, Chemistry 1A. Chemistry 1A may be taken concurrently with this course.

Three units; first semester.

1B. Food Economics

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. Prerequisites: Food Economics 1A or one year of high school Cooking, high school Chemistry or Chemistry 1A.

Three units; second semester.

2. Dietetics

LANDERS

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

Two units; 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 27.

1A. Woodwork (Benchwork in Wood)

DESILVA

Five hours per week.

Two units; first semester.

1B. Woodwork

DESILVA

Prerequisite: 1A five hours.

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; either semester.

4. Wood Turning

SCUDDER

Prerequisite: 1A-1B, 2, 2. Five hours.

Three units; first semester.

5. Cabinet Work

SCUDDER

Prerequisite: 1A-1B, 2, 4. Nine hours per week.

Three units; second semester.

6. Upholstering

SCUDDER

Prerequisite: 1A-1B, 2, 3. Five hours per week.

Two units; second semester.

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; second semester.

10. Pipe Fitting

DESILVA

Nine weeks. Five hours per week.

One unit; second semester.

11. Linear and Shadow Perspective

DESILVA

Prerequisite: 3. Nine weeks.

One unit; second semester. Five hours per week.

12. Machine Drawing

STOVALL

Prerequisite: 3. Nine hours per week.

Three units; first semester.

13. Automobile Mechanics

DESILVA

Ten hours per week.

Four units; first semester.

TEACHER-TRAINING COURSES

CX. Organization

SCUDDER

Prerequisite: Thirty units in Industrial Arts.

Two hours per week.

Two units; second semester.

CXI. Teaching

SCUDDER

Prerequisite: Thirty units in Industrial Arts.

Five hours per week.

Five units; either semester.

MATHEMATICS

The major in Mathematics (lower division) required: Mathematics 3A-3B, 4A-4B and 6. Recommended: Physics 2A-2B or 1A-1B and a reading knowledge of French and German.

The major (junior year): Mathematics 101 and 112.

A. Intermediate Algebra

LIVINGSTON

Functions and graphs, theory of quadratic equations, binomial theorem, logarithms, progressions. Prerequisite: One and one-half years of high school Algebra.

Two units; second semester.

C. Plane Trigonometry

LIVINGSTON

Logarithms, solution of triangles, trigonometric functions and relations, polar coordinates. Prerequisite: Mathematics A.

Two units; first semester.

1. Survey Course

Trigonometry, functions and graphs, differential and integral calculus. Prerequisite: One and one-half years of high school Algebra. Not open to those taking C or 3A.

Three units; first semester. (Not offered in 1927-28.)

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: Two years of high school Algebra and Trigonometry or Mathematics A.

Three units; second semester.

3A-3B. Introduction to Analysis

LIVINGSTON

Functions and graphs, analytic geometry, differential and integral calculus. Prerequisite: Mathematics C. The high school course in Solid Geometry is strongly recommended.

Three units; both semesters.

4A-4B. Higher Analysis

LIVINGSTON

Integration, series, differential equations, curves and surfaces. Prerequisite: Mathematics 3A-3B.

Three units; both semesters.

6. Introduction to Projective Geometry

LIVINGSTON

The construction and study of conic sections by means of perspectives, poles and polars, involutions and inversions. Prerequisite: Mathematics C or I.

Three units; second semester.

101. Elementary Geometry for Advanced Students

LIVINGSTON

Geometric constructions, properties of triangles, harmonic properties of circles. Prerequisites: Mathematics 3A-3B and 6.

Three units; first semester.

112. Analytic Geometry of Space

LIVINGSTON

Prerequisites: Mathematics 4A-4B and 6, except that one of these may be taken concurrently.

Three units; second semester.

MUSIC

The major in Music (lower division): Music 1A-1B, 3A-3B, 4A-4B and 5A-5B. The major (junior year): Music 109A-109B.

1A-1B. Musicianship

A course combining the elements of ear training, sight reading, dictation and music writing. Prerequisite: Knowledge of characters used in notation.

Two units; both semesters.

3A-3B. History and Appreciation of Music

L. D. SMITH

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

Two units; both semesters.

4A-4B. Harmony

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.

Three units; both semesters.

5A-5B. Counterpoint

A study of simple counterpoint in the five species. Two and three part inventions. Prerequisite: Music 4A-4B.

Two units; both semesters. (Not offered in 1927-28.)

109A-109B. Conducting

(1) Voice classification, principles of vocal ensemble, beating time, interpretation, repertoire. (2) Instrumentation and principles of instrumental ensemble. Prerequisite: Music 4A-4B.

Two units; both semesters. (Not offered in 1927-28.)

118A-118B. Choral Music

Studies in choral music, breathing, enunciation, interpolation. Prerequisite: Music 1A-1B, or its equivalent.

Two units; both semesters. (Not offered in 1927-1928.)

118C-118D. Choral Music

Two units; both semesters.

MUSIC ORGANIZATIONS

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

1A, B, C, or D. Treble Clef Club

L. D. SMITH

One-half unit; either semester.

1A, B, C, or D. Male Chorus

L. D. SMITH

One-half unit; either semester.

1A, B, C, or D. Choral Club

L. D. SMITH

One-half unit; either semester.

1A, B, C, or D. Orchestra

One unit; either semester.

TEACHER-TRAINING COURSES.

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

PHYSICAL EDUCATION

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

Physical Education for Men

C. E. PETERSON

A two-hour course required for the two years of 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.

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: II Child Hygiene, LII Play Activities, LIII Administration of Physical Education Program, CLII Methods in Formal Activities, CLIII Theory of Teaching and Leadership in Physical Education, CLIV Methods in Play Activities, CLV Administration of Physical Education Program in Secondary Schools, CLV Practice Teaching in Physical Education.

PHYSICS

The major in Physics (lower division) required: Physics 2A-2B and 3A-3B, with a grade of B, or 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

BAIRD

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

GILKEY

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

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.

Two units; either semester.

PHYSIOLOGY

See Education, Course CXXV.

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.

The major (junior year): Political Science 111 and 113.

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.

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.

Two units; either semesters.

111. Theory of the State

LEONARD

The nature of the state, its organization and activities, and its relation to individuals and to other states.

Three units; first semester.

113. American Political Ideals

LEONARD

Underlying theories and principles of American governmental policy.

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.

The major (junior year): Elementary Statistics 140A (U. C. Ext. Div.), Social Psychology 145, Zoology 114 and 115.

2A1. 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.

2Ae. General Psychology (for Education students)

BELL

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

The major in Zoology (lower division) required: Zoology 1A-1B and high school Chemistry or Chemistry 1A. Recommended: French, German and Botany 2A-2B, Chemistry 8-9.

The major (junior year): Zoology 100, 112, 114. Recommended: Chemistry 123-124, Botany 101.

1A. Zoology

JOHNSON

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

Five units; first semester.

1B. Zoology

JOHNSON

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

Five units; second semester.

10A-10B. Biology

JOHNSON

The fundamentals of plant and animal biology, with elementary work in heredity, evolution and eugenics. The laboratory work supplements the lectures and includes a study of living and preserved material. The aim of the course is to acquaint the student with the basic facts of biology. It is designed not only to give

the general student an acquaintance with living things and their relationships, but also to furnish the prospective teacher with an adequate background for nature study teaching. Two lectures or recitations and one three-hour laboratory period per week.

Three units; both semesters.

100. Elementary Embryology

JOHNSON

The development of vertebrates as illustrated by the chick. Four hours per week of laboratory, lectures and recitation. Prerequisite: Zoology 1A-1B.

Two units; first semester.

112. Invertebrate Zoology

JOHNSON

Illustrated lectures deal with the more common animals that are to be found at nearby beaches. The life history, habits, and distribution of our more conspicuous shore animals are considered. Students will have the opportunity to get acquainted with the living animals both at the beach and in the laboratory. One hour lecture per week and trips to the beach as opportunity offers. Prerequisite: Biology 10A-10B or Zoology 1A.

Two units; first semester. (Not offered in 1927-28.)

114. Heredity and Evolution

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

Three units; first semester. (Not offered in 1927-28.)