Announcement of

COURSES OF INSTRUCTION

OFFERED IN

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

1923-1924

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AND JUNIOR COLLEGE
OF SAN DIEGO

Announcement of
COURSES OF INSTRUCTION

Including:
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Social Service

1928-1929

TOWN TEMPLE COLLEGE
SAN DIEGO, CALIFORNIA

Annexed to the State Teachers College of San Diego
and Junior College

[Image]
STATE TEACHERS COLLEGE OF SAN DIEGO

Administered Through

DIVISION OF NORMAL AND SPECIAL SCHOOLS

OF THE

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COUERSES OF INSTRUCTION

FACULTY, 1922-1923

EDWARD L. HARDY, President, School Administration. B.L., University of Wisconsin; M.A., University of Chicago; study of European secondary schools, 1888-1890; Principal San Diego High School, 1906-1910. (Appointed September 1, 1910.)

ARTHUR G. PETERSON, Dean of Junior College. Economics and Sociology, A.B., College of the Pacific; M.A., Stanford University; Vice Principal San Diego High School and Director of Junior College, 1919, 1920, 1921. (Appointed September 1, 1921.)

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

GUILLERMO LANDERA, Director of Education, Practice Teaching and Supervision. Graduate, State Normal School, San Diego; B.A., Stanford University; Departmental Teacher, City Schools of San Diego; Class Supervisor and Principal of Training School, State Normal School of San Diego; Director of Education, including Practice Teaching and Supervision, State Teachers College of San Diego, 1921. (Appointed September 1, 1919.)

CAROLINE L. TOWNSEND, Director of Primary Education. B.A., University of Chicago; Indianapolis Normal School; Teachers College, Columbia University; Teacher of Primary Reading and Literature in the public schools of Indianapolis and Tacoma. (Appointed July 1, 1913.)

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

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

RUTH C. BAGLEY, English. A.B., University of Michigan; A.M., University of California; graduate study, University of Illinois and Columbia University; Head Department of English, State Normal School, Oshkosh, Wisconsin, ten years; Instructor, San Diego Junior College, 1919-1921. (Appointed September 3, 1921.)

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

MARY M. BOWER, Assistant Physical Education. Graduate State Normal School of San Diego. (Appointed October 1, 1917.)

LILLIE P. BROWN, Romance Languages. M.A., Harvard University; formerly instructor in French and Spanish, University of Chicago. (Appointed July 1, 1922.)

VINNIE B. CLARK, Geography. A.B., University of Wisconsin. Graduate student, University of Chicago; Assistant in Geography, University of Wisconsin; Oak Park, Ill., High School, 1913-1914. (Appointed September 1, 1914.)

*On leave of absence, May, July and August, 1923.
**On leave of absence, 1922-1924.

2-37538
KATHERINE E. CORNET, Class Supervisor, B.P.H., Michigan State Normal School; B.S. and A.M., Teachers College, Columbia University; public school teacher for seven years; special teacher in Americanization courses; Training Supervisor four years in Kent State Normal College, Ohio. (Appointed July 1, 1921.)

**KATHERINE COX, Vocational Home Economics, A.B., Stanford University; graduate student at State Teachers College at San Jose, State Teachers College of Santa Barbara, University of California, Stanford University Hospital and with Dr. Emerson; instructor in California Schools, ten years; at State Normal School, Cheney, Washington, one year. (Appointed September 1, 1912.)

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

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

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

**MARY LOUISE FIELD, Class Supervisor. Graduate Los Angeles State Normal School; A.R., Stanford University; professional study at University of California and Columbia University; public school teacher, five years; Critic Teacher at State Normal School, Cheney, Washington, one year. (Appointed July 1, 1921.)

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

**ESTHER C. HAMMACK, Class Supervisor. Graduate State Normal School of San Diego; professional study at University of California; public school teacher, five years. (Appointed September 1, 1910.)

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

***CARL HOFFER, Chemistry, B.S., University of California; postgraduate study, University of California; Assistant in Chemistry, University of California; Chief Chemist and Acting Superintendent Harbours Chemical Company. (Appointed March 1, 1922.)

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

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

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

*On leave of absence, 1921–1922.
***On leave of absence, 1922–1924.
***Resigned, July 1, 1923.

**BEULA MARKER, Assistant Fine Arts, B.S., Columbia University; Teachers College, Columbia; graduate of Los Angeles State Normal School, with general professional and special art diplomas; Assistant in Fine Arts Department, Teachers College, Columbia University, 1918–1919. (Appointed July 1, 1919.)

CHESLEY MILLS, Orchestra. Violin training in San Francisco under Max Fleishman, later under Gustav Pnungits and Wenzel Kopta; has held the following among other positions; First violin, Atlanta Symphony Orchestra, Atlanta, Georgia; director of Symphony Orchestra, San Diego, two seasons. (Appointed January 1, 1919.)

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

IRVING E. OUTCALT, Head Department of English, A.B., Stanford University, 1894; A.M., 1897, University of Illinois; Head Department of English, San Diego High School, 1907–1911; graduate student, Stanford University, 1920–1922. (Appointed September 1, 1912.)

KATHERINE OWENS, Assistant in Biology, B.A., 1920 and M.A., 1921, University of California; Technician, State Hygienic Laboratory, 1922. (Appointed February 1, 1923, for second semester, 1922–1923.)

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

MARK M. RICHARDS, Arithmetic and Class Supervisor, A.B. and A.M., University of California; 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, West Branch, Missouri; Director in Dominica School, Northeast Missouri State Teachers College, two years. (Appointed September 1, 1921.)

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

W. T. SMITH, Agriculture and Nature Study, State Normal School, Los Angeles, Cal.; M.S., University of California; teacher in public schools, Los Angeles, California, several years; Assistant in Physics, University of California, 1908–1910. (Appointed September 1, 1921.)

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

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

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

*On leave of absence, July 1, 1922, to February 1, 1923.
**On leave of absence, August 15, 1925, to July 1, 1926.
APPOINTMENTS FOR 1923-1924

MARTIN F. REESON, Director of Education, A.D., Meridian College, 1910; Ph.D., Leipzig, "cum laude," 1914; graduate study, Stanford University, 1918; Professor of Education and Psychology, Colorado State Teachers College, 1917-1920; Director of Cooperative Extension Service for Colorado State Teachers College, University of Colorado, and University of Ohio. (Appointed September 1, 1923.)

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

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

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

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

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

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

*Resigned, July 1, 1923.
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. Teachers whose certification needs may be met by supplemental units of credit (not to exceed 4) may be enrolled in this term. Students may enter at the beginning of either semester and at the beginning of Term I of the summer quarter.

The summer session meets the needs of regular students who wish to gain credits toward the professional diploma or the A.B. degree, of teachers in service who wish further professional training and of junior college students who wish to secure supplemental credit or to shorten the time for completion of work for the junior college certificate.

The autumn semester will begin on Monday, September 17. Registration of students will be held from September 10 to September 15. A duly certified transcript of the applicant's record must be in the possession of the Registrar of the Teachers College or the Dean of the Junior College on or before the day of the applicant's registration.

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

DEPARTMENTS OF INSTRUCTION

Teachers College—The Teachers College offers courses for the training of teachers in both the primary and upper divisions of the elementary school, the junior high school, and the special fields of Fine Arts, Industrial Arts and Physical Education. The special four-year courses lead to the special state certificate of secondary grade. 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 elementary special certificate courses offered include the fields of Fine Art, Industrial Arts and Physical Education.

Junior College—In the Junior College division courses are offered in the following fields: Anthropology, Economics, Engineering, English, Foreign Languages, Geography, Graphic Art, History and Political Science, Home Economics, Hygiene, Mathematics, Music, Natural Science, Philosophy and Psychology. Descriptions of the courses in both the professional and the collegiate fields, with complete information as to admission requirements, will be found on the pages following under the headings "Admission," "Curricula," etc.

STANDARDS OF HEALTH, SCHOLARSHIP AND CHARACTER

All entering students will be required to meet the health standards set by the Department of Physical Education, and all lower division students, unless excused for cause, will be required to take the courses in physical education prescribed for freshmen and sophomores. Furthermore, each student will be expected, as a matter of efficient student and community life, to keep himself in the best possible physical condition.

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

*Not offered in 1923.

STUDENT LIFE AND ORGANIZATIONS

Student affairs, and organizations to foster them, are many and varied, but are well co-ordinated through the central student body organization, The Associated Students. The following list indicates the major activities:

Scientific: Chemistry Club.


Dramatic: Two-Masque Players.

Musical: Treble Clef Club, Male Chorus, Choral Club, College Orchestra.

Social and Athletic:


Men's Athletics: Football, baseball, basketball, track, swimming, tennis and golf.

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

Publications: The Paper Lantern (weekly), and The Del Sudeste (year book).

APPOINTMENT SERVICE

The Department of Recommendations has charge of the placement of graduates, assisting them in securing teaching positions and presenting students 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 a 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) ...

Amounts: $1.50

Student body fee, each semester (not returnable) ...

Amounts: $1.50

Men’s and women’s organizations, each (not returnable) ...

Amounts: $1.50

LABORATORY FEES AND DEPOSITS

<table>
<thead>
<tr>
<th>Fee</th>
<th>Deposit</th>
</tr>
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<tbody>
<tr>
<td>Bacteriology ($5 returnable), each semester</td>
<td>$5.00</td>
</tr>
<tr>
<td>Biology 10, each semester</td>
<td>1.00</td>
</tr>
<tr>
<td>Botany 10A-10B ($2 returnable), each semester</td>
<td>2.00</td>
</tr>
<tr>
<td>Botany 10C, each semester</td>
<td>2.00</td>
</tr>
<tr>
<td>Chemistry ($2.50 returnable), each semester</td>
<td>2.50</td>
</tr>
<tr>
<td>Fine Arts (certain courses), each semester</td>
<td>3.00</td>
</tr>
<tr>
<td>Home Economics, each semester</td>
<td>1.00</td>
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<tr>
<td>Physics ($3 returnable), each semester</td>
<td>3.00</td>
</tr>
<tr>
<td>Physiology, each semester</td>
<td>1.00</td>
</tr>
<tr>
<td>Surveying, each semester</td>
<td>1.00</td>
</tr>
<tr>
<td>Zoology ($2 returnable), each semester</td>
<td>2.00</td>
</tr>
<tr>
<td>Physical Education Expenses: Women Students</td>
<td>1.00</td>
</tr>
</tbody>
</table>

EXPENSES: WOMEN STUDENTS

The Dean of Women will furnish, upon request, addresses of homes in which board and room may be secured. The list of accomodations for women will be in the hands of the student, but not advisable to work board and room. It is advisable to take up another opportunity to secure board and room in the neighborhood of the college. The room may be procured for from $10 to $15 per month, depending upon the house and the demand. The minimum price for one semester of eighteen weeks is estimated at $210: Board and room, $180; books, paper, and necessary materials, $15; registration and student-body fees, $7; laboratory fees, $1 to $10. Clothing to be determined by the student, but it is suggested that clothing should be of the simplest type, such as one-piece wooden 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 residing in San Diego are frequent, particularly in the cases of young women who are able to assist as teacher's helpers in the school or in the care of children. A limited amount of clerical work in offices and libraries, and of employment in the school cafeteria, may be offered by time to time, but ordinarily is not sufficiently remunerative to reduce expenses materially. The loan fund is administered for students in the professional course, seniors in teacher training being eligible for assistance. Application should be made to the Dean of Women. Men should consult the Dean concerning part-time employment.

BUILDINGS AND EQUIPMENT

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

COURSES OF INSTRUCTION

- 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 the physical education of men was finished in January 1925, 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 7,000 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, class rooms, an athletic field, tennis courts, etc.

PHYSICAL CONDITIONS: CLIMATE

The physical conditions in San Diego for study are unsurpassed, since sustained intellectual effort can be maintained always with comfort in the cool, even climate of the place. Temperatures are usually shown on a globe by lines which pass through regions of the same degree of heat or cold. Red lines of 60 degrees and 70 degrees, showing the summer temperature at San Diego, enclose Alaska and Siberia. Blue lines of 50 degrees and 90 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 addition to the physical college city, if the student is to work in a healthy 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 it yet 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 of the California Building often contains exhibitions of pictures, and there are plans for the development of a Public Conservatory of Music for which the great out-of-door organ furnishes a beginning. Balboa Park, in which all of these facilities are located, also contains a modern horticultural farm and a great stadium for games, community gatherings and pageants.

The La Jolla area, within the city limits, is home to the Scripps Institution of Oceanography, located in La Jolla, is a famous oceanographic institution, and the University of California, offers opportunities, especially since the establishment of the Junior College division of the San Diego State College with the University, for important co-operation in the biological and medical fields.

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

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

The professional, teacher-training courses profit because of the policy of co-operation generously followed by the City School Department, which has resulted in the merger of the City Junior College with the Teachers College, and in a plan for laboratory work in practice teaching in the city schools. San Diego's fine system of schools, with all of the modern divisions of kindergartens, elementary schools, junior high schools, and senior high schools, furnishes and co-operates between the specialists of the city school system and the student body through its weekly assembly, the programs for which, as arranged by committees of students and faculty, include almost every worthwhile type of topic and appeal.

**Routine and Procedure**

Outside of the necessary routine and procedure in the conduct of registrar's, class attendance, conduct of examinations, etc., college affairs are controlled by standards which are the result of experience or which reflect a very wide range of experience among students, teachers, and officials. There is no perfect system, but it is the result of long experience, and the problems of conduct and control affecting college-wide policy are reviewed by the college-wide policy committee.

The student body or student groups are dealt with as they arise; if they are not, the student body or student groups are dealt with as they arise; if they are, the student body or student groups are dealt with as they arise.

The 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 it is being made to 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, mesa, foothills and sports of all kinds, including swimming and rowing, are possible the year round, and the College Outdoor Theater makes possible the presentation of many student productions in drama and pageant.

**Requirements for Admission**

I. Freshman Standing

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

1. The candidate must be duly certified as a graduate of an accredited California high school.

2. The graduate must have completed a four-year high school course aggregating at least 15 standard units of preparatory work, including the following requirements for graduation prescribed by the California State Board of Education: English, 2 units; United States History and Civics, 1 unit; Laboratory Science, 1 unit; and two units of study in one of the following groups: (a) English (in vocational courses 1 unit of citizenship may be included to meet 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—2 or more units in one language, or 2 units in each of two languages.

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

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 that he has satisfied the requirements in (2) above, and has maintained an average scholarship standing well above the average 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 that he satisfactorily passes examinations in at least 8 units of work selected from subjects prescribed for graduation by the California State Board of Education. Other candidates who are unable to present satisfactory school certificates may be admitted by successfully passing examinations in at least 15 standard high school units. Matriculation examinations are held in the San Diego State College in the first week of September and the last week of January of each year.

Certificates of successful examinations before the College Entrance Examination Board will be accepted in lieu of matriculation examinations conducted by the San Diego State College. The entrance examinations of the Board are held at each university in the state (California, Berkeley, Los Angeles, and other places). Applications for examinations must be addressed to the College Entrance Examination Board, 451 West 117th Street, New York, N. Y. They are to be made upon a blank form to be obtained from the Secretary of the Board upon request.

**Preparation for the Various Curricula**

Junior College

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

- English
- A Foreign Language
- A Laboratory Science
- Algebra
- Geometry
- United States History and Civics
- Electives

Three units of English and 2 units of French or German are required for admission to the Premedical and Prelegal curricula.

Chemistry is required for admission to the curriculum in Agriculture and to the curriculum in Letters and Science when the candidate intends to specialize in Home Economics. Chemistry and Physics (2 units) are required for admission to the curriculum in Agriculture and to the curriculum in Letters and Science when the candidate intends to specialize in Nursing. Some basic units in English are required, but not required for students who intend to specialize in Zoology or Geography.
The following preparatory subjects are required for admission to the Junior College curricula leading to certificates in Engineering (Mechanical, Electrical, Civil or Chemical):

- English ................................................. 2 units
- Elementary Algebra .......................... 1 unit
- Algebraic Theory .......................... 1 unit
- Plane Geometry ..................................... 3 units
- Trigonometry ....................................... 1 unit
- Physics .............................................. 2 units
- Chemistry ........................................ 1 unit
- United States History and Civics ......... 1 unit
- Geometrical Drawing ........................ 1 unit
- Electives ............................ 6 units

Teachercollege

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

- English, Mathematics, Foreign Language, Physical and Biological Science.
- Social Science, with a required minimum, further of 2 units in English, 1 in United States History and Civics and 1 unit in a Laboratory Science.

II. Advanced Standing

Students from other institutions of recognized collegiate rank may be admitted to advanced standing upon such terms as the Committee on Advanced Standing may deem equitable. Every such candidate is required to present a detailed statement of his college record together with a statement showing the subjects for which matriculation credit was given.

III. Special Students

Junior College

A candidate not less than 21 years of age who has not had the opportunity to complete a satisfactory high school course but who is considered competent will not ordinarily be admitted to special standing. Applicants of special standing, the Committee on Advanced Standing, the Committee on Special Standing, and the faculty involved in the subject, upon satisfying the regular entrance requirements, may make it necessary for the student to extend his college course beyond the normal period of time required for its completion.

French or German (3 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 requirement for the student to extend his college course beyond the normal period of time required for its completion is determined by the Committee on Advanced Standing.

Courses of Instruction

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

General Regulations

Registration

All students are required to register on one of the regular registration days preceding the opening of the class work of each semester. Any 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 two dollars. Changes in study lists may be made only with the approval of the proper study-lists officer. A fee of one dollar is charged for a change in the study list after the close of the regular registration period.

Matriculation

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

A student who enters with credit for a subject in which he did not receive a recommending grade may, under certain conditions, be permitted to remove his matriculation deficiency either (1) by passing an examination in the subject with a grade of B or (2) by continuing the same line of study in college 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 24 to 59 units of work are classified as sophomores; those who have completed 60 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.

Fifteen hours, or units, per week of recitations or lectures or an equivalent in laboratory work, in addition to physical education, constitute an average semester's program. Ordinarily a student is not permitted to register for less than 12 nor more than 18 unit-hours of new work in addition to physical education, unless permission is given in advance by the proper study-lists officer. Ordinarily not more than 18 units, in addition to physical education, will be credited toward graduation for the work of any semester, unless the student was registered for at least 12 unit-hours in the preceding semester and attained an average grade of not less than B.
SPECIAL SUBJECT REQUIREMENTS

ENGLISH A

All entrants to the College who fail to pass a special examination in Elementary English Composition must take English A until they attain a passing grade in the subject.

PHYSICAL EDUCATION AND HYGIENE

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

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

SCHOLARSHIP GRADES AND GRADE POINTS

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

Grade points are assigned as follows: A, 4 points per unit; B, 3 points per unit; C, 2 points per unit; D, 1 point per unit; E, no points.

To qualify for a certificate in either the Teachers College or the Junior College, or for a transcript of academic 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 "B" 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 cases where a 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 "incomplete" not removed before the end of the following semester is considered a failure. In case of failure in a course no credit is given until the course has been repeated.

DISQUALIFICATION

A regular student who fails either (1) to pass in at least 8 units of duly registered work, or (2) to obtain at least 12 grade points in any semester is disqualified for further attendance at the College unless, after due consideration of the merits of the case, the Committee on Scholarship decides that the student shall be placed on probation. The above rule applies with full force to special students who are registered in 12 or more units of work, but is modified in its application to limited students by considerations of outside work and condition of health.

A disqualified student may be reinstated, after an interval of one semester, for reasons satisfactory to the Committee on Scholarship. A limited student who fails to pass in all subjects for which he is registered and every other student who fails to pass in 12 units of work in any quarter is ineligible in the next succeeding quarter to represent the College in connection with any athletic, literary, musical, dramatic, social, or other organization; and all students who fail to attain an average of "C" grade in all work undertaken up to the end of any semester shall be ineligible to represent the college in like manner in the next succeeding semester.

SPECIAL EXAMINATIONS AND RE-EXAMINATIONS

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

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

WITHDRAWALS FROM CLASS

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

LEAVE OF ABSENCE

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

HONORS

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

FELLOWSHIPS

Fellowships (without honorarium) have been instituted, a fellowship to be conferred by vote of the faculty on nomination of the department concerned, and to entitle the recipient to special training and to recommendation to county boards of education for the special elementary or the special 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 certificate, and those who have done two years of work will be recommended for the special high school certificate; provided, that within the period specified, they are able to meet the requirements of the State Board of Education for special certification.

PROFESSIONAL COURSES:

THE ELEMENTARY DIPLOMA COURSE

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

Education I (Elementary Educational Psychology) ........................................... 3.00
Education II (Advanced Educational Psychology) ............................................... 5.00

Elementary School Curriculum:
  Language Studies ......................................................................................... 1.50
  Social Studies (Geography, etc.) ................................................................. 2.00
  Natural Science Studies ............................................................................. 2.00
  Elementary Mathematics ............................................................................. 3.00
  Music ........................................................................................................ 2.50
  Art ............................................................................................................ 2.50
  Biology or General and Applied Psychology ............................................. 2.50
  Techniques of Study and Social Ethics ....................................................... 1.50
  Physical Education .................................................................................... 2.50

SENIOR DIVISION
(Three Semesters, or Two Semesters and Two Summer Sessions)

Educational Sociology ................................................................................... 3.00
Civic Education ............................................................................................. 2.00
School Law and Administration .................................................................... 2.00
Class Management ......................................................................................... 2.00
Health Education (School and Personal Hygiene) ......................................... 3.00
Physical Education ......................................................................................... 2.50
Teaching and Observation (minimum) ......................................................... 3.50
Educational Measurements ............................................................................ 1.00
General Collegiate Electives ......................................................................... 2.00
"Professional Electives" ............................................................................... 15.00
  Total ......................................................................................................... 76.00

The general collegiate electives must be taken from the following groups:
1. Language Subjects, including both linguistic and literary courses in
   English of collegiate grade,
2. Natural Science Subjects, including Mathematics, Geography, the Physical
   Sciences, etc.,
3. Biological Science, including Botany,
4. Social Science, including Rural Life, Selected Aspects of History,
   Sociology, Political Science, etc.,
5. Psychology, Principles of Education, Ethics, Logic, etc.,
Six units of special elective work must be taken in the following groups:
  Manual and Industrial Arts
  Household Arts
  Physical Education
  Music
  Fine and Applied Arts
  Elements of Agriculture

THE THREE-YEAR CURRICULUMS
(Leading to special elementary certification)

These must be arranged according to the following general prescriptions
of the State Board of Education:
1. The three years curricula shall include 32 units additional to the number
   of units required for the elementary diploma curriculum, which 32 units
   shall
*Intelligence Testing, Rural School Problems, Advanced Elementary Educa-
  tion (Ed VI), Technical Arts, Fine Arts, Household Arts and Science, Element-
  ary School History and Civics, etc.

THE DEGREE COURSES

In accordance with legislation enacted in 1921, the State Board of Educa-
tion has prescribed the following curricula for the degree of Bachelor of Arts

LOWER DIVISION (Freshman and Sophomore Years) ........................................ 42 units
1. Required .................................................................................................... 6 units
2. Social Science ........................................................................................... 12 units
   a) Contemporary Civilization
   b) Economics
   c) Political Science
3. Sociology ..................................................................................................... 4 units
4. Biological and Physical Sciences ............................................................... 12 units
   a) English (including oral English) .......................................................... 6 units
   b) Physical Education .............................................................................. 6 units
   c) Professional Electives ......................................................................... 42 units

II. Required Group Electives* ........................................................................ 22 units
1. English ........................................................................................................
2. History ........................................................................................................
3. Political Science .........................................................................................
4. Sociology ....................................................................................................
5. Education* ................................................................................................
6. Biological Sciences ....................................................................................
7. Philosophy or Psychology ..........................................................................
8. Mathematics ............................................................................................... 9 units
9. Physics ........................................................................................................ 10 units
10. Chemistry .................................................................................................. 11 units
11. Geography ................................................................................................ 12 units
12. Greek or Latin ........................................................................................... 13 units
13. Romanic Languages .................................................................................. 14 units
15. Art ............................................................................................................. 15 units
16. Music ........................................................................................................ 16 units
17. Agriculture ................................................................................................
18. Commerce ................................................................................................
19. Physical Education ....................................................................................
20. Industrial and Mechanical Arts .................................................................
21. Home Economics ....................................................................................... UPPERT DIVISION (Junior and Senior Years)
III. For all degree courses leading to high school certification of teachers of
    special subjects, the minimum number of units of professional work
    shall be the same as the minimum number prescribed by the State
    Board of Education for the certification of general high school teach-
    ers; the minimum number of professional units for all degree courses
    leading to elementary certification shall be 32; and for all types the

be selected and arranged to meet both the needs of individual students and the
requirements of the State Board of Education as to the various types of certifi-
cation; provided that candidates for special certification shall be required to
meet the prescriptions, only, of the State Board of Education for such certifi-
cation."
maximum number of professional units shall be 40. Every degree course shall include the following professional subjects:
1. Laboratory Practice in Teaching, of which there must be a minimum of 5 units of class-room teaching 10 units
2. School Administration, inclusive of School Law 3 units
3. Objectives in Education 3 units
4. Educational Psychology 3 units
5. Civic Education 2 units

IV. Electives listed under II above, to be administered on the same conditions as specified above 43 units

Total 128 units

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

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

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

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

*Students must choose at least two fields, each not less than 6 units.
*Not more than 12 units in the Education group to be allowed in the lower division nor more than 49 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 59 units in any one subject or group of subjects listed above to be allowed in the upper and lower divisions of the four-year curricula.

<table>
<thead>
<tr>
<th>COURSES OF INSTRUCTION</th>
<th>CURRICULA FOR THE A. B. DEGREE</th>
<th>(Major in Education)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEMENTARY SCHOOL COURSE—LOWER GRADES</td>
<td></td>
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<tr>
<td><strong>LOWER DIVISION</strong></td>
<td><strong>First Year</strong></td>
<td>Units</td>
</tr>
<tr>
<td>General Psychology (2A)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Applied Psychology (2B)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Social Science (Government 1A and 1B or Economics 1A and 1B or History of Modern Europe 4A and 4B or History of America 8A and 8B)</td>
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<td>6</td>
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<tr>
<td>Biology (1A–1B)</td>
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<td>5</td>
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<tr>
<td>English</td>
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<td>32</td>
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<td><strong>Second Year</strong></td>
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</tr>
<tr>
<td>Social Science (General Sociology 50, and Social Psychology or Introduction to Economic Geography)</td>
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<td>6</td>
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<tr>
<td>Biology (Human Physiology and Hygiene)</td>
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<td>6</td>
</tr>
<tr>
<td>Music I and II</td>
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<td>3</td>
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<tr>
<td>Elementary School Natural Science</td>
<td></td>
<td>3</td>
</tr>
<tr>
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<td>*Electives</td>
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<td>32</td>
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<td><strong>UPPER DIVISION</strong></td>
<td><strong>Third Year</strong></td>
<td>Units</td>
</tr>
<tr>
<td>Educational Psychology (Education I and II A)</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Curriculum Studies (A and B)</td>
<td></td>
<td>6</td>
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<tr>
<td>Educational Measurements I</td>
<td></td>
<td>3</td>
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<td>School Administration and California School Law</td>
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<tr>
<td><strong>Fourth Year</strong></td>
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<tr>
<td>History of Education</td>
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<td>3</td>
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<tr>
<td>Outlines of Culture Growth</td>
<td></td>
<td>3</td>
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<tr>
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<td>3</td>
</tr>
<tr>
<td>Laboratory Practice</td>
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<td>11</td>
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<td></td>
<td>32</td>
</tr>
</tbody>
</table>

*Electives in the lower and upper divisions must include 1 year (6 units) of Mathematics, if two years were not taken in high school, and 1 year (19 units) of a Foreign Language, if not previously taken in high school.

*Must include 6 units in the field of Music and Physical Education, and 6 units in the field of Fine and Industrial Arts.
### Elementary School Course—Upper Grades

**Lower Division**

**First Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>General Psychology (2A)</td>
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</tr>
<tr>
<td>Biology (10A and 10B)</td>
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<table>
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<td>Social Science (General Sociology 50, and Social Psychology or Introduction to Economic Geography)</td>
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**Upper Division**

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<td>Educational Psychology (Education I and II B)</td>
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<td>Educational Measurements II</td>
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### Courses of Instruction

**Junior High School Course**

**Lower Division**

**First Year**

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EDUCATION

Education I—Analysis of Teaching Process

BRESSEN, G. S. BELL

This course includes brief studies in Elementary Educational Psychology, with emphasis upon the principles of learning involved in the various school subjects and the corresponding teaching processes.

Three units; one semester.

Education II—Psychology of the Elementary School Curriculum

BRESSEN, MINOR

A brief study of the mental processes which are developed in learning the elementary school subjects. Collateral readings, class observations and demonstration lessons, with reports, will be required of all students.

a) Primary.

b) Elementary.

Prerequisite: Education I.

Five units; one semester.

Education III—School Law and Administration

NIDA, HARDY

School Administration as it affects the teacher, including her relations to administrative officers—and School Law of California.

Three units; one semester.

Education IV A—Rural School Problems

COLDWELL, MINOR

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

Two units; one semester.

Education IV B—Class Management

CORMETT

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.

Education V—Primary Education (Advanced)

MINOR

This course is planned for students who are preparing to teach in the primary grades. It will consider the organization of the subject matter of these grades, and the relation between content and expression subjects. Special attention is given to reading.

Two units; one semester.

Education VI—Pedagogy of the Problem-Project Method

BRESSEN

A discussion of the advantages to the learner of the organization of study around a large central topic or interest.

Two units; one semester.

COURSES OF INSTRUCTION

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

G. S. 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 test group tests of intelligence are discussed and demonstrated. Experience in giving, scoring and interpreting results is required. The purpose of this course is to give teachers information on the subject, to enable each student to find out if by inclination and endowment he is fitted to do scientific testing and to put him in the way of becoming skilled in giving and interpreting intelligence tests.

Two units; one semester.

Education VIII—Educational Measurements II—Achievement Tests: Theory and Practice

G. S. BELL

A brief study of the best tests in the elementary school subjects which have been standardized. Practice in giving, scoring, tabulating and interpreting results. Emphasis in this course is laid upon the significance of a diagnosis in relation to problems of grading, grouping and teaching.

Three units; one semester.

Education IX—Objectives in Education (Curriculum Studies)

BRESSEN, NIDA

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

The divisions of the course, listed below, include observational studies of training school clinics and demonstrations, of classroom procedure and of individual instruction, readings, lectures, class discussions and analyses—all dealing with the essentials in the organization and conduct of the subject matter and activities of the lower elementary, the upper elementary and the junior high school. Each course deals, also, with the California texts, and the state curriculum standards and programs in the several statutory studies.

A.

This course deals with the kindergarten-primary division of the curriculum.

Three units; one semester.

B.

DEALS WITH GRADES IV, V AND VI.

Three units; one semester.

C.

DEALS WITH THE JUNIOR HIGH SCHOOL GRADES, VII, VIII, IX, X.

Three units; one semester.

Education X—History of Education

LAWG, G. S. BELL

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

Three units; one semester.
Education XI—Civic Education

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

Two units; one semester.

Education XII—Principles of Secondary Education. (With reference to the Junior High School)

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.

THE STATUTORY CURRICULUM

(Elementary School)

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

Language

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

One and one-half units.

Mathematics

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

Three units; one semester.

Social Studies (Required World Geography, History, etc.)

This course deals with the principles which determine the products and the manner of living on different parts of the earth's surface, and is largely mathematical, meteorological and climatological. In addition, methods of teaching geography in the elementary school are studied and discussed.

Three units; one semester.

Natural Science

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

Two units; one semester.

Music I

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

One-half unit; one semester.

Music II. Elementary School Music

L. 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 I or its equivalent.

Two units; one semester.

Art I

Benton, Marker

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

One-half unit; one semester.

Art Methods I

Benton, Marker

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

Two units; one semester.

PHYSICAL EDUCATION

Special Methods in Play Activities

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

One unit; one semester.

Administration of Physical Education Program in Elementary and Junior High Schools

L. D. Smith, lan Visiting Instructor

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

Two units; one semester.

Technique of Physical Training Activities

A systematic study of the principles of Physical Training as related to the elements of games as the means of measuring physical efficiency, and to individual and dual athletic games and sports such as handball, tennis, track and field events, swimming, tether ball, etc.

One unit (36 hours); both semesters.
Hygiene (Child Growth and Development)

A course for professional students designed to acquaint them with the principles governing the growth and development of children and including:
- The phenomena of reproduction, sex and the influencing factors of environment;
- prenatal and postnatal development; glands and internal secretions, their influences and reactions; growth periods; diseases, physical defects and health indices of school children; teaching of hygiene in the elementary school; lectures, demonstrations, reports and discussions.

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

Three units; one semester.

Physical Diagnosis

Designed to train physical directors in the technique of the physical examination; history taking and its application; heart and lung tests and examinations; inspection, diagnosis and prognosis. Lectures, clinics and discussions.

(Not given in 1923-24.)

Five units; one semester.

Special Methods in Formall Activities

(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.

Three units; one semester.

Athletic Games and Sports (Methods)

(For Elementary and Junior High Schools)

A course designed to instruct teachers in the rules and methods of coaching popular school athletics, such as: playground ball, basketball, soccer, handball, track athletics, etc. (Not designed for highly specialized coaching.)

Two units; one semester.

Practice in Teaching

Skill in teaching games and athletic sports, in the use of Decathlon Events and Tests and in gymnastic drills is expected. Training school classes are used in practice teaching. Qualified students assist also in the college classes.

Three units; one semester.

Health Supervision and Growth Control

a) Health Supervision and daily inspection.
b) Study of the relation of height, weight and age to health and development.
c) Health conditions in the school environment.
d) Methods of hygiene instruction.

Five units; one semester.

Physiology of Exercise

A study of various kinds of exercise in relation to physical efficiency, organic vigor, heat regulation, fatigue and exhaustion.

Two units; one semester.

COURSES OF INSTRUCTION

Human Anatomy

A study of the human body, for students in Physical Education particularly. Not open to lower division students. Demonstrations, lectures, laboratory.

(Not given in 1923-24.)

Five units; one semester.

Organization of Physical Education Program in Secondary Schools

(Not given in 1923-24).

Three units; one semester.

Practice Teaching in the Secondary Schools

(Not given in 1923-24).

Three units; one semester.

Kinesiology

A study of the relation of bones, articulations and muscles to the perfect functioning of the human organism, and an analysis of their actions in games and gymnastics. Mechanical strength and durability, as influenced by anatomical factors, are developed. Lecture, recitation and demonstration, quiz.

One unit; one semester.

Pedagogy of Physical Education

A study of the purpose, scope and ideals of Physical Education. Reports on current problems and developments in Hygiene and Physical Education will be made and discussed in class and in conference.

(Not given in 1923-24).

Three units; one semester.

Folk Dancing (Theory and Practice)

Special attention is given to such folk and national dances as are best adapted to festivals and pageants in elementary and high schools.

Two units; one semester.

PROFESSIONAL ELECTIVES

Agriculture I and II

In the first course the fundamental principles of agriculture are studied. Special attention is given to phases of the subject suitable for use in the elementary school where agriculture is taught, or where nature study is given an agricultural trend.

The second course is a study of horticulture. Ornamental trees, shrubs, vines and flowers, such as are commonly used in California, are given a large share of attention. Outdoor study and at-home work throughout the course.

Two units each.

Music 4. History and Appreciation of Music

Development of primitive systems; medieval 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, lessons and reports.

Three units; one semester.

SKILLING

L. D. SMITH

Music 4. History and Appreciation of Music
Art Methods II
Prequisites—Art I and Art Methods I. This course is for the third year students working for Elementary Special certification. It includes problems for grades 7, 8, and 9 and curriculum planning, and is presented in the same manner as Art Methods I.
Two units; one semester.

Elementary School History and Civics
This course involves a study of history for the discovery of the proper content of the work of the elementary school in history and in education for citizenship, and is based upon a study of objectives.
Two units; one semester.

COURSES FOR SECONDARY SCHOOL TEACHERS IN THE JUNIOR HIGH SCHOOL FIELD

Organization and Administration (Education XII)
This course deals with the present tendencies in secondary education, especially in the junior high school field, and with the prevailing patterns of junior high school administration and educational science with which the teacher must be familiar, and with which he must be familiar, and with her work. Particular attention is given to the problem of individual differences and to that to that of articulation of the junior high school with lower and higher schools.
Two units; one semester.

The Curriculum (See Curriculum Studies “C,” page 25)
The junior high school curriculum as a general training for life and citizenship, as a pre-vocational and vocational training, and as a preparation for advanced high school and college work, will be dealt with in this course by means of lectures and required readings and in reports upon the experimental work that is being done in the junior high school field.
Two units; one semester.

English
This course consists of the following items: (a) Lectures, and required papers, on the objectives of secondary school work in English and on the respect to pupil abilities and activities; (b) the study of methods with the city schools.
Two units; one semester.

Social Science
This course for prospective junior high school teachers attempts to meet the problem of the teaching of some of the elementary facts and principles of "general" social science suited to the experience and development of the junior high school pupil, through the medium of social studies in the junior high school curriculum as history, geography, and civics. Methods of survey and study projects, and of developing a genuine and continuing interest in social and civic problems through observation and reading, will be discussed and illustrated.
Two units; one semester.

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

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

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

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

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

Mathematics
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.

REQUIREMENTS FOR THE JUNIOR COLLEGE CERTIFICATE, 1923-24

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

LETTERS AND SCIENCE (LIBERAL ARTS) CURRICULUM
(With the required entrance credits and a proper selection of electives in the freshman and sophomore years, the curriculum in Letters and Science will prepare for the major work required for an A.B. degree in the following subjects: Anatomy, Anthropology, Astronomy, Bacteriology, Biochemistry,

a) General Requirements for All Students:
   - Hygiene, 2 units
   - Physical Education, 2 units
   - Social Ethics, 1 unit
   - How to Study, 1 unit

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:
   - Elementary Algebra and Geometry.

   - Natural Science:
     - At least 12 units chosen from the following list:
     - High School Physics, 3 units
     - High School Chemistry, 3 units
     - Astronomy, 1 unit
     - Bacteriology, 1 unit
     - Biology, 10 units
     - 10A-10B, 6 units
     - Botany, 1 unit
     - Chemistry, 1A-18, 10 units
     - 2A-2B, 6 units
     - 3A-3B, 2 units
     - 6A-6B, 6 units
     - Chemistry, 2A-2B, 6 units
     - 3A-3B, 2 units
     - Zoology, 1A-1B, 10 units

   - English:
     - 1A-1B, 6 units

e) Additional:
   - At least 9 units from one of the following groups and at least a year course in each of two others:
     1. English:
        - Year Course: English 1A-1B
        - 3-semester option: English 1A-1B, plus 3 additional units
     2. Foreign Language, additional to (b):
        - Year course:
          - French: Any two consecutive courses of A, B, C, D
          - Spanish: Any two consecutive courses of A, B, C, D
          - German: Any two consecutive courses of A, B, C, D
        - 3-semester option: 9 units selected from French, Spanish, or German courses. High school Latin may be used to satisfy this requirement in part or in whole, each year of High School Latin counting as 3 units.
     3. Mathematics:
        - Year course: 1A-1B, 3A-3B
        - 9-semester option: Any 9 units selected from C, 1A-1B, 3A-3B, 4A-4B, 4A-4B, High School Plane Trigonometry will count as 2 units.
     4. History, Economics, Political Science:
        - Year course: History 4A-4B, 5A-5B, Economics 1A-1B, Political Science 1A-1B
        - 3-semester option: A year sequence plus 2 units selected from History 4A-4B, 171A-171B, 182A, 5A-5B, Economics 1A-1B, Political Science 1A-1B

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**Commerce Curriculum**

a) General Requirements:
   - Hygiene, 2 units
   - Physical Education, 2 units
   - Social Ethics, 1 unit
   - How to Study, 1 unit
   - 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)
   - History 4A-4B, 5A-5B, 171A-171B or Political Science 1A-1B, 6 units
   - Economic Geography 3A, 2 units
   - Mathematics of Investment 2A, 4 units
   - (Prerequisite: Algebra A or one year of high school advanced algebra)
   - 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)
   - Economics 1A-1B, 6 units
   - English 1A-1B, 6 units
   - *Electives, 18 units


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**Curriculum in Journalism**

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

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**First Year**

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<td>Economics 1A-1B</td>
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<tr>
<td>Political Science 1A-1B</td>
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<td>Hygiene</td>
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<td>Social Ethics and How to Study</td>
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**Second Year**

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<td>*Reporting and Correspondence 51B</td>
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<td>Types of Literature 52A-52B</td>
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<td>Psychology 2A-2B</td>
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<td>Sociology 50</td>
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<td>History of Modern Europe 4A-4B</td>
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<td>*Electives</td>
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*With the consent of the instructor, News Writing and Reporting may be taken in the freshman year.

*Electives should be chosen so as to conform to the requirements of the Letters and Science curriculum or the Commerce curriculum.

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*San Diego Teachers College*
PRESIDENT'S CURRICULUM

a) The requirements of the Letters and Science Curriculum or the Commerce Curriculum should be met in full.

b) Additional recommendations:
   - Public Speaking 1A-1B, 6 units.
   - Economics 1A-1B, 6 units.
   - Sociology 30, 3 units.
   - Psychology 2A-2B, 6 units.
   - History 4A-4B, 6 units.
   - History 171A-171B, 6 units.
   - Political Science 1A-1B, 6 units.
   - Accounting 14A-14B, 8 units.

PREMEDICAL CURRICULUM

First Year

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Second Year

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MECHANICAL, ELECTRICAL, CIVIL AND MINING ENGINEERING CURRICULUM

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Second Year

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CIVIL ENGINEERING

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<td>Railroad and Irrigation</td>
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SANITARY AND MUNICIPAL:

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CURRICULUM IN INDUSTRIAL AND ENGINEERING CHEMISTRY

First Year

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<th>Sem. I</th>
<th>Sem. II</th>
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<tbody>
<tr>
<td>Mathematics 3A-3B</td>
<td>3</td>
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<tr>
<td>Physics 1A-1B</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Chemistry 1A-1B</td>
<td>5</td>
<td>5</td>
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<tr>
<td>Plane Surveying 1A-1B</td>
<td>3</td>
<td>3</td>
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<tr>
<td>English 1A-1B</td>
<td>3</td>
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</tr>
<tr>
<td>Hygiene</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Physical Education</td>
<td>4½</td>
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<tr>
<td>Social Ethics and How to Study</td>
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Second Year

<table>
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<tr>
<th>Course</th>
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<tr>
<td>Mathematics 4A-4B</td>
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<tr>
<td>Physics 4A-4B</td>
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<td>Chemistry 3-5</td>
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<tr>
<td>Physical Education</td>
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<tr>
<td>English 1A-1B</td>
<td>3</td>
<td>3</td>
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<tr>
<td>*Electives</td>
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<td><strong>Total</strong></td>
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*Students who intend to specialize in Chemical Technology should elect Pattern Shop 8 and Machine Design 6A.
### CURRICULUM IN AGRICULTURE

**ONE YEAR**

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Chemistry 1A–1B</td>
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<tr>
<td>Zoology 1A</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Botany 2A–2B</td>
<td>2</td>
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<tr>
<td>Hygiene</td>
<td>4</td>
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<td>Physical Education</td>
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<td>Social Ethics and How to Study</td>
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<tr>
<td><em>Electives</em></td>
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<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>18</td>
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### CURRICULUM IN ACCOUNTANCY AND SECRETARIAL TRAINING

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

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

### ACCOUNTANCY

**One-Year Course**

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. I</th>
<th>Sem. II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting 1A–1B</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Commercial Law 1SA–1SB</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Penmanship</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Economics 1A–1B</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>English 1A–1B</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Business Mathematics A</td>
<td>2</td>
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</tr>
<tr>
<td>Social Ethics and How to Study</td>
<td>3</td>
<td>2</td>
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<tr>
<td><em>Electives</em></td>
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<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16</td>
<td>16</td>
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</table>

*Electives should be chosen so as to meet the following requirements, includingmatriculation credit, before the end of the freshman year. Each high school year-course counts as 3 units: English, 12 units; Mathematics, including Trigonometry, 12 units; Physics, 3 units; History of Economics, 2 units; Geometric Drawing, 2 units.*

### COURSES OF INSTRUCTION

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. I</th>
<th>Sem. II</th>
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</thead>
<tbody>
<tr>
<td>Accounting 1A–1B</td>
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<tr>
<td>Penmanship</td>
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<td>Typing 1A–1B</td>
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<tr>
<td>English 1A–1B</td>
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<tr>
<td>Business Mathematics A</td>
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<td>Hygiene</td>
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<td>Social Ethics and How to Study</td>
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<tr>
<td><em>Electives</em></td>
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#### Second Year

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<tr>
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<th>Sem. I</th>
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<tr>
<td>Advanced Accounting 160A–160B</td>
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<td>3</td>
</tr>
<tr>
<td>Commercial Law 1SA–1SB</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Economics 1A–1B</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Economic Geography 3A</td>
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<tr>
<td>Physical Education</td>
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<tr>
<td><em>Electives</em></td>
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<tr>
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#### Secretarial Training

**One-Year Course**

<table>
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<tr>
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<tbody>
<tr>
<td>Commercial Law 1SA–1SB</td>
<td>3</td>
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<tr>
<td>Shorthand 1A–1B</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>English 1A–1B</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Business Mathematics A</td>
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<td>2</td>
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<tr>
<td>Office Practice 3A</td>
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<tr>
<td>Social Ethics and How to Study</td>
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**Two-Year Course (leading to Junior College Secretary Certificate)**

<table>
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<tr>
<td>Shorthand 1A–1B</td>
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<td>5</td>
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<tr>
<td>Typing 1A–1B</td>
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<td>4</td>
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<tr>
<td>Business Mathematics A</td>
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<tr>
<td>French or Spanish</td>
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<td>Hygiene</td>
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<td>1</td>
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<tr>
<td>Physical Education</td>
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<td>2</td>
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<tr>
<td>Social Ethics and How to Study</td>
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<td>1</td>
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<tr>
<td><strong>Total</strong></td>
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</table>
**COURSES OF INSTRUCTION, 1923-24**

One "unit" represents an hour of recitation or lecture, together with the required preparation, or three hours laboratory work each week, for a semester of 18 weeks. Credit for 64 units, or more, according to the course chosen, is required for a certificate.

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

**ANATOMY**

102. General Human Anatomy

Study of the human body. Observation and study of dissections, models, and prepared slides. Designed for students of Physical Education and Public Health or other non-medical students. Two demonstration hours and one laboratory period. Prerequisite: Zoology 1A or Physiology 1 or Biology 10A–10B. Three units; second semester. (Not offered in 1923-24.)

**ANTHROPOLOGY**

Preparation for the major in Anthropology—Anthropology 1A–1B.

1A. General Anthropology: Origin and Antiquity of Man

Man as an animal; heredity; races and race problems; earliest culture. Three units; one semester. (Not offered in 1923-24.)

1B. General Anthropology: Origin and Development of Civilization

The source and growth of institutions, art, customs, industries, language, and religion. Prerequisite: Anthropology 1A. Three units; one semester. (Not offered in 1923-24.)

103. Outlines of Culture Growth

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 contacts. Three units; second semester.

104. Culture History of the Southwest

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

**ARTS AND CRAFTS**

(Not offered in 1923-24)

177. Art Metal Work

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

<table>
<thead>
<tr>
<th>ACCOUNTANCY AND SECRETARIAL TRAINING</th>
<th>Sem. I</th>
<th>Sem. II</th>
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<tbody>
<tr>
<td><strong>Second Year</strong></td>
<td>Units</td>
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<tr>
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<td>Economics 1A–1B</td>
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<td>3</td>
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<tr>
<td>Accounting 1A–1B</td>
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<td>4</td>
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<td>English 1A–1B</td>
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<th>One-Year Combined Course*</th>
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<tr>
<td>Typing</td>
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<td>4</td>
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<td>Shorthand 1A–1B</td>
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<td>Typing</td>
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<tr>
<td>Business Mathematics A</td>
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<td>2</td>
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<tr>
<td>Hygiene</td>
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<td>1</td>
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<td>Social Ethics and How to Study</td>
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<th>Second Year</th>
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<tr>
<td>Advanced Accounting 160A–160B</td>
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<td>Commercial Law 18A–15B</td>
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<td>Office Practice 3A</td>
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<td>3</td>
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<td>Physical Education</td>
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<td>16½</td>
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</table>

*Students who plan to enter the consular service should elect Political Science 1A–1B, 2–3 units.

*Recommendations for matriculation: Business Law, Economics and French or Spanish (two years).

*Recommendations for matriculation: French or Spanish (two years).
178. Pottery
   Building pottery forms by hand and potter's wheel, glazing, casting in cement. Prerequisite: Art A or its equivalent. Two units; one semester.

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

180. Leather Work
   Two units; one semester.

181. Bookbinding
   Two units; one semester.

182. Weaving
   Two units; one semester.

ASTRONOMY

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

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

BACTERIOLOGY

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

1. General Bacteriology and Microbiology
   Cot
   A study of the bacteria, their form, life history and occurrence; microscopic examination and identification; sterilization; preparation of media for some of the human, plant, and animal diseases. The aim of the course is to give an introduction to bacteriological facts and methods, a knowledge of which is essential to students in Medicine, Agriculture, and Biological Sciences and Nursing. A student who is preparing to assist in lectures or recitations and two laboratory periods per week. Prerequisite: Chemistry 1A or Chemistry 2A.
   Four units; second semester.

BOTANY

Preparation for the major in Botany, Botany 2A-2B.

2A-2B. General Botany
   Cot
   The fundamentals of form, structure, and physiology of plants, with a general study of principles of plant relationship and plant classification. This is a more specialized course than the biology and deals only with the plants and their relationships. Besides acquainting the student through experiment, with the fundamental life processes of plants, it will enable him to determine the names and relationships of plants in which he may be interested. Two lectures or recitations and two laboratory periods per week. Four units; throughout the year.

CHEMISTRY

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

1A-1B. General Chemistry
   Skilling
   The course is designed to give the student a thorough understanding of the fundamental principles and theories of Chemistry and their applications in every-day life, as well as to meet the requirements for further work along chemical lines. Three hours lecture and recitation and two laboratory periods per week. Prerequisites: Chemistry 2A-2B and 3A-3B or High School Chemistry or High School Physics and Trigonometry.
   Five units; throughout the year.

2A-2B. General Inorganic Chemistry
   Skilling
   A non-engineering course, covering Elementary Chemistry including all the essential phases of the subject. Open to all students. Three hours lecture, demonstration and recitation per week. Three units; throughout the year. (Not offered in 1923-24.)

3A-3B. General Inorganic Chemistry-Laboratory
   Skilling
   Designed to supplement and emphasize important facts as given in 2A-2B, and to give the student some experience in laboratory operations. One laboratory period per week.
   One unit; throughout the year. (Not offered in 1923-24.)

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

8-9. Organic Chemistry
   Pearce
   A study of the carbon compounds and their derivatives, including the synthesis of different compounds and the proof of their constitution. A general study of the subject and the principles involved. Two lectures or recitations and one laboratory period, first semester; one lecture or recitation and two laboratory periods and one laboratory period, second semester. Prerequisite: Chemistry 1A-1B, two laboratory periods, second semester.
   Three units; throughout the year.
ECONOMICS

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

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; real, interest, wages, and profit; competition, monopoly, and large scale production; property, economic waste, and luxury; money and banking, international trade and tariffs; transportation, corporations, labor problems, socialism, taxation, etc. The aim of the course is (1) to provide a foundation for further intensive study of economic problems; (2) to furnish to those who expect to follow business pursuits a broad foundation in economic principles; and (3) to introduce the future citizen to the political and economic problems of our time. Lectures, discussions, quizzes, and collateral reading.

Three units; throughout the year.

3A. Introduction to Economic Geography
(See Geography.)

50. General Sociology

A G. Peterson

The object of the course in Sociology is twofold: To familiarize the student with the forces and laws under which society is formed, and to bring him so far as possible into touch with specific contemporary problems, so member of the social group and as a citizen. General Sociology includes the 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; first semester.

145. Social Psychology

A G. Peterson

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

Three units; second semester.

149. Field Studies

A G. Peterson

Scientific methods of social and industrial field work and investigation: field work data. Each member of the class is required to assist in a survey of San Diego and under the direction of the instructor in charge of the Sociology 50. Recommended: Psychology 2A and Economics 1A–1B.

One or two units; first semester.

18A–18B. Commercial Law

Stanton

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

Three units; throughout the year.

1A–1B. Typewriting

Gillespie

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

Four units; throughout the year.

2A–2B. Typewriting

Gillespie

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

Two units; throughout the year.

1A–1B. Stenography

Greene

An intensive course designed for the practical preparation of office secretaries. A thorough study is made of the Gregg System and the ability to read and write shorthand rapidly and correctly, both literary and commercial, is developed. The shorthand speed necessary to pass a Civil Service examination is attained by the end of the year. Ordinarily no credit is given for this course except in the curricula in Accountancy and Secretarial Training.

Five units; throughout the year.

3A. Office Methods and Appliances

Wright

Practice and principles of office management including organization, arrangement and operation. Study and use of modern office appliances, such as the multigraph, mimeograph, filing devices, calculating and bookkeeping machines, etc. Credit is given only in the curricula in Accountancy and Business Administration.

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 Business Administration.

Two units; first semester.

14A–14B. Accounting

Evans, 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 continuance of businesses; branch store accounting, etc., keeping in view the best modern accounting practices. Eight hours lecture and laboratory.

Four units; throughout the year.
160A-160B. **Advanced Accounting**

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; throughout the year.

**ENGINEERING**

**C. Mechanical Drawing**

This course is designed to train engineering 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**

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 Design**

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

Five units; second semester.

**1A-1B. Plane Surveying**

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

Three units; throughout the year.

**8. Pattern Making**

The aim of this course is to acquaint the student with as wide a variety of patterns as possible, in order to develop his knowledge of construction and broaden his view of the industries. Instruction is given in the principles of pattern construction, and the uses of the shrink rule, the finish allowance, draft allowance, fillet, etc. The correctness of design and necessity for the various allowances are proved by actual moulds and castings made from one-piece and split patterns. Excursions to pattern shops and foundries. Reference work, 4 hours per week, from standard texts. Laboratory plan. Prerequisite: Bench work in wood and wood turning.

Two units; either semester.

**9. Machine Work in Iron**

Chipping, filing, turning, planing and milling metals. Study of the effect of speed and feed in machine tool operation. Instruction in the care and management of the various tools and machines. Accuracy workmanship exacted. Two two-hour periods from 7 p.m. to 9 p.m.

Two units; either semester.

**1. Applied Mechanics**

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

Three units; first semester.

**1. Elements of Electrical Engineering**

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

Three units; one semester.

**8A-8B. Pattern Making**

The aim of this course is to acquaint the student with as wide a variety of patterns as possible, in order to develop his knowledge of construction and broaden his view of the industries. Instruction is given in the principles of pattern construction, and the uses of the shrink rule, the finish allowance, draft allowance, fillet, etc. The correctness of design and necessity for the various allowances are proved by actual moulds and castings made from one-piece and split patterns. Excursions to pattern shops and foundries. Reference work, 4 hours per week, from standard texts. Laboratory plan. Prerequisite: Bench work in wood and wood turning.

Two units; throughout the year.

**1. Applied Mechanics**

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

Three units; first semester.

**1. Elements of Electrical Engineering**

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

Three units; second semester.

**ENGLISH**


**A. English**

This course consists largely of remedial work for individuals who are deficient in the elements of English Composition and Grammar.

No credit; either semester.
1A-1B. English Composition

Bagley, F. I. Smith

The course is designed to develop correctness and clearness of expression by constructive practice in oral and written composition. Subjects of current interest are chosen for class discussion and presentation. The work includes a review of functional grammar; the study of sentence, paragraph and theme structure; illustrative reading from modern literature.

Three units; throughout the year.

4. Great Books

A survey of books and bodies of literature that are of prime importance as immediate sources or direct expression of European and American culture.

Three units; second semester.

50A-50B. The Drama

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

Two units; throughout the year. (Not offered in 1923-24.)

52A-52B. Types of Literature

Introduction to the study of poetry; origin, elements, and types; typical poems; contributions to English poetry from Hebrew, Greek, Norse and other literatures. (First semester.)

Study of types of prose literature: the essay, drama, novel, short-story, etc. (Second semester.)

Three units; throughout the year.

53A-53B. Introduction to Poetry

About one-third of the semester is given to the study of Communal Poetry, including the Hebrew Lyric, the Greek Epic, Norse Saga, Medieval Romance, Ballad Poetry, etc. The remaining two-thirds is devoted to Narrative Poetry, English and American. Typical narrative poems from Chaucer to recent times are studied. (First semester.)

Modern Lyric Poetry, English and American, from the Elizabethan period to the present time, provides the material for this part of the course; and there is a concluding summary and study of the elements and characters of poetry, in substance and form. (Second semester.)

Three units; throughout the year. With the consent of the instructor either semester may be taken separately. (Not offered in 1923-24.)

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; throughout the year.

60. Periodical Literature

A course dealing with current conditions and developments in Art, Science, Politics, Sociology, etc., as recorded and discussed in leading periodicals, with the object of promoting intelligence in the reading of history in the making.

Two units; first semester.

101. Modern Prose Fiction

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; first semester.

117A-117B. Shakespearean Textual Study

The early plays, the great comedies, and at least one great tragedy are studied, together with Elizabethan life and literature and the origin and characteristics of Elizabethan drama. (First semester.)

The great tragedies and the latest plays are studied more intensively; and there is consideration of the elements and traits of tragic poetry, with comparisons of Shakespearean with ancient and modern drama. (Second semester.)

Three units; throughout the year. With the consent of the instructor either semester may be taken separately. (Not offered in 1923-24.)

121. Victorian Poetry

Wadsworth, Tennyson, Browning and their contemporaries.

Three units; second semester.

130A-130B. American Literature

From 1707 to the close of the Civil War. (First semester.)

From 1865 to the present time, with parallel consideration of English Literature of the same period. Prose fiction, in novel, short story, and drama receive special emphasis. (Second semester.)

Three units; throughout the year. With the consent of the instructor either semester may be taken separately.

177. The Short-Story

A course combining advanced narrative composition with the study of typical modern short-stories. The aim is to assist in the realization of the human, and hence literary, values of the circumstances and experiences of ordinary life.

Three units; second semester.

FINE ARTS

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

A-B. Freehand Drawing

Freeman, Marker

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

Two units; throughout the year.

6A-6B. Art Structure

Benton, Marker

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

Two units; throughout the year.
12A-12B. Advanced Design and Color
Prerequisite: Art 6A-6B.
12A—Problems in creative design presented in relation to materials and processes of application, such as wood block printing, batik, etc.
12B—Includes the application of design to posters, lettering and illuminating.
Two units; throughout the year.

1. Art History and Appreciation
Prerequisite: Art 6A.
A study of architecture, sculpture, painting and handicraft from the dawn of art to modern art, through illustrated lectures, research and discussion.
Three units; second semester.

102. Stage Craft
Prerequisite: Art 6A-6B.
Theory of line, color and lighting studied in relation to stage effects; study of the New Zealander movement and its personalities. Miniature stages permit individual problems in settings, lighting and costume. The actual making of costumes and settings for a play produced by the Dramatic Society is the final problem.
Four units; second semester.

116A-116B. Life Drawing and Painting
Prerequisite: A-B.
115A—Pose drawing from the figure.
115B—Illustration.
Throughout the year; 2 units each semester. (Not offered in 1923-24.)

194A-194B. Costume Design
Prerequisite: Art 6A-6B.
194A—Design studied in relation to textiles and to modern dress for general and individual types. This course includes some drawing from costume models, sketching from costumes in the shops and original problems in costume design.
194B—A study of the history of costume. Advanced problems in design are executed in materials. Some stitchery is included and processes of dyeing and dye resists.
Throughout the year.
194A—3 units; first semester.
194B—2 units; second semester.

195A-195B. Home Decoration
Prerequisite: Art 6A-6B.
195A—Design in relation to the home. Planning, decorating and furnishing with emphasis on spacing, color and lighting. Study of furniture, floor coverings and textiles. Original problems in house planning and color elevations of rooms.
195B—Takes up more intensive study of period styles and historic ornament. Original problems in designing furniture and fireplaces, and in selecting and combining textures.
Throughout the year.
195A—3 units; first semester.
195B—2 units; second semester.

FOREIGN LANGUAGE
Preparation for a major in a Foreign Language. Required: 36 units of credit in the language chosen for the major. Recommended: English 1A-1B and History 4A-4B.

Elementary German
Pronunciation, Reading and Grammar, with practice in simple conversation, narration, and description, both oral and written.
A. Elementary German
Five units; first semester.
B. Elementary German
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 summary; dictation; introduction to contemporary prose writers; study of the principles of French Prosody, with memory work.
A. Elementary French
Five units; first semester.
B. Elementary French
Five units; second semester.

Intermediate French
Reading and composition; study of standard prose as a basis for class work; collateral reading with summaries and written reports in French; study of French Prose; with selections for memorizing; dictation. Class work conducted mainly in French. Individual conferences.
C. Intermediate French
Prerequisite: French B or three years of the high school course in French, or its equivalent.
Three units; first semester.
D. Intermediate French
Prerequisite: French C or four years of the high school course in French, or its equivalent.
Three units; throughout the year. (Not offered in 1923-24.)

102A-102B. Introduction to French Classics
Prerequisite: French D, or its equivalent.
Three units; throughout the year. (Not offered in 1923-24.)
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 recitation; 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.

102A-102B. Introduction to Spanish Classics
Prerequisite: Spanish D, or its equivalent.
Three units; throughout the year.

GEOGRAPHY

Geography 1
This course includes a study of the fundamental principles of geography and their adaptation to teaching geography in the elementary schools. Required of all students working for a teacher's certificate.
Two units; repeated each semester.

116D. Latin America
This course deals with the climate, topography and natural resources of the countries and the effect of those physical factors upon the economic, commercial and racial problems of the different nations. Prerequisite: Geography 1, or its equivalent.
Four units; first semester, 1922-24.

116C. Europe
This course deals with the physical environment of each of the nations, their reactions to physical environment and their economic, political and social relations with each other. Prerequisite: Geography 1, or its equivalent.
Four units; second semester, 1922-24.

127. Human Geography, Principles of
This course deals with physical controls and the reactions of different races to their environments.
Three units; second semester, 1925-26.

3A. Economic Geography
The course in Economic Geography includes a study of the economic activities of nations and peoples, as influenced by geographical factors, with a study of present day problems in the field of the subject.
Three units; first semester, 1924-25.

18B. Elementary Meteorology
A study of the earth's atmosphere and the changes in it which produce our weather and influence human affairs.
Three units; first semester.

28B. Map and Instrument Study of Weather and Climate
The making and recording of meteorological observations; practical work with meteorological instruments and study of weather and weather maps. Prerequisite: 1B Elementary Meteorology.
Two units; second semester.

HISTORY

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

4A-4B. Modern European History
The course is intended as an introduction to the study of the political, social, economic and intellectual life of Europe. In the first semester the period from about 1500 to about 1800 is covered. For this work a syllabus is provided. The work of the second semester is largely based on Hazzard: "Europe Since 1515." The class work is largely lecture, with frequent oral and written quizzes. Special assignments are made from time to time.
Three units; throughout the year.

8A-8B. History of the Americas
A study of American history from the continental point of view. Emphasis is placed on the planting of European civilization in the Americas, the growth of colonies, the struggles of American nations for control of the continents, the Wars of Independence, and the development of independent American republics and their relations with each other and with the rest of the world. Lectures, discussions, assigned readings, frequent oral and written quizzes.
Three units; throughout the year.

121A-121B. Medieval History
A general survey of European history from about 500 to 1500. An outline of the course of events, with emphasis on the development of medieval institutions. Lectures, assigned readings, frequent oral and written quizzes.
Three units; throughout the year.
171A-171B. History of the United States  
LEONARD
From 1763 to the present day. An outline course dealing with the political and constitutional history of the United States, with attention to social and economic development. Lectures, discussions, assigned readings, frequent oral and written quizzes.
Three units; throughout the year.

182. Spanish Colonization of the West Coast of North America  
LEONARD
An introduction to the study of Spanish America. The course aims at tracing the Spanish progress in North America, especially along the West Coast, with special attention to Spanish institutions and history in California. The work is based on a syllabus. The classroom work is largely lecture, with frequent oral and written quizzes.
Three units; second semester. (Not offered in 1923-24.)

HOME ECONOMICS

HOUSEHOLD ART
Preparations for the major in Household Art. Required: High school courses in botany, chemistry, physics, and mechanical drawing, or Botany 2A, Chemistry 2A-2B, Physics 2A-2B, and Mechanical Drawing C. Household Art 1A-1B; Art 6A-6B, 12, 94; History 4A-4B; Economics 1A-1B, or equivalents. Recommended: High school course in clothing, Art 1, Psychology 2A-2B, French or German.

1A-1B. Clothing and Costume Design  
BASTIAN
This course is designed both for teachers in the elementary grades and for those who desire to specialize in Household Art. It aims to teach the fundamental processes of hand and machine sewing. Textile study includes the development of the textile industry and a brief survey of the textile fabrics. Costume design, with lectures on artistic appreciation, color, and materials, including embroidery and lace, required. One lecture or recitation and two laboratory periods per week. Prerequisite: One year of high school sewing, or equivalent.
Three units; throughout the year.

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.

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

1A-1B. Elementary Food Economics  
BASTIAN
This course aims to give a résumé of elementary cookery principles and laboratory technique. It is designed both for students who will teach in the elementary schools and those intending to specialize in Home Economics work. The general principles of cookery and of each foodstuff are studied through experiments, and applied to the preparation of food. The composition, preservation and nutritive value of foods are emphasized. In the first semester, special emphasis is laid on carbohydrates, fats and water; in the second on protein, minerals and vitamins. One lecture or recitation and two laboratory periods per week.
Three units; throughout the year.

HYGIENE  
C. E. PETERSON
An informational course in person and community Hygiene required of all men in the freshman year in the Junior College. The course includes a study of Sex Hygiene and of the Hygienic Principles of Exercise, Bathing and Sleep. Civie Hygiene is vitiated 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  
TANNER
An informational course reviewing the principles underlying the improvement and preservation of personal and civic health. Social Hygiene is studied in its relations to the practical problems of young women and prospective homemakers. The laws and procedure in local civic health matters of particular interest to women are studied in detail. Reports following personal investigation of at least three major topics are required for each member, these reports being given and discussed before the class. Required of all women in the freshman year in the Junior College.
Two units; either semester.

JOURNALISM  
SMITH
51A. News Writing
Practice in news writing and study of newspaper sources.
Three units; first semester.

51B. Reporting and Correspondence  
SMITH
Study of the different types of stories covered by the reporter and the correspondent.
Three units; second semester.

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

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

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

Three units; second semester.

1A-1B. General Course

The course begins with the solution of simple problems by graphical methods; then by the more exact methods of differential and integral calculus. The work in calculus is later extended to problems in Trigonometry and Analytic Geometry, the essentials of these subjects being presented as needed. This course should give at least a general view of those processes in Mathematics which are so necessary to the solution of problems in the exact sciences and which are proving a valuable aid to students of Social Science and Business Administration. It is intended primarily for non-engineering students. Those unable to take the entire course will find the first semester's work complete in itself. Students who have already studied Trigonometry will find very little of mere repetition. Prerequisites: Elementary Algebra and Geometry.

Three units; throughout the year.

2. Mathematics of Investment

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

Four units; first semester.

Elements of Analysis, with Applications

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

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

Prerequisite: Mathematics A and C or their equivalents.

Three units; throughout the year.

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

Prerequisite: Mathematics 3A-3B or its equivalent. The high school course in Solid Geometry is also strongly recommended.

Three units; throughout the year.

MUSIC

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

1A. Treble Clef Club

One unit; either semester.

1A. Male Chorus

One unit; either semester.

1A. Choral Club

One-half unit; either semester.

1A. Orchestra

One unit; either semester.

3. Music History and Appreciation

(See page 29)

PHILOSOPHY AND PSYCHOLOGY


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 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.

One-fourth unit; either semester.

A. How to Study

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

One-fourth unit; either semester.

2A. General Psychology

A study of the modern scientific interpretation of the facts of consciousness; their relation to each other, to their external stimuli, and to the nervous system. The aim is (1) to increase the student's understanding of himself and to contribute to his intelligent, discriminating reading of current popular and scientific literature; and (2) to give a definite and necessary basis for advanced work in Psychology.

Three units; first semester.

2B. Applied Psychology

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 discriminating and eliminations in these fields between scientific, legitimate Psychology and the Pseudo-Psychology that is popular because of its simplicity and plausibility or because of its mysticism.

Three units; second semester.

145. Social Psychology

(See Economics.)
PHYSICAL EDUCATION

Preparation for the major in Physical Education—Chemistry 2A-2B, 3A-3B or Chemistry 1A-1B, Biology 10A-10B, Physiology 1.

Physical Education for Men

A two-hour course required for the two years of Junior College work. Physical education 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 period, physical efficiency tests embracing agility, defense and swimming are given each semester. During the two years a playing knowledge of the major and minor sports is given and fundamentals of boxing and wrestling taught each student.

1A. B, C or D. Physical Education. One-half unit; throughout the year.
1A or B. American Football. One-half unit; first semester.
2A or B. Track. One-half unit; second semester.
4A. Basketball. One-half unit; second semester.
5A or B. Boxing. One-half unit; second semester.
6A or B. Tennis. One-half unit; either semester.
7A or B. Boxing. One-half unit; either semester.
9A or B. Wrestling. One-half unit; either semester.
10A, B, C or D. Swimming. One-half unit; either semester.

Physical Education for Women

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

52A-52B. Physical Education

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

52C-52D. Physical Education

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

PHYSICS

Preparation for the major in Physics. Required: Physics 2A-2B and 3A-3B, with a grade of B, or Physics 1A-1B and 4A-4B; Chemistry 2A-2B and 3A-3B or 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

Mechanics, properties of matter, and heat. This course aims at a development of the fundamental ideas which underlie the subject of Physics, and the application of them in the discussion of practical problems. The work is presented in lectures, text assignments, problem sets and experimental laboratory work. Two lectures and one laboratory period each week. Prerequisites: Physics 2A-2B and 3A-3B or High School Physics; three years of High School Mathematics including Trigonometry.
Three units; throughout the year.

2A-2B. General Physics

Baird, Cummings
Properties of matter, mechanics, heat, sound, light, electricity and magnetism. A non-engineering course open to all students. Lectures, demonstrations, and discussions.
Three units; throughout the year.

3A-3B. Physical Measurements

Baird, Cummings
Laboratory work in mechanics, properties of matter, heat, sound, light electricity and magnetism. These exercises are usually taken in conjunction with Physics 2A-2B.
One unit; throughout the year.

4A-4B. General Physics

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

PHYSIOLOGY

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

1. Introductory Human Physiology
The structure and functions of the human body, to give a general conception of the relationship of the human body to its environment. Three lectures or recitations; two laboratory periods per week. Prerequisite: At least one of the following: Zoology 1A-1B, Biology 10A-10B, Chemistry 1A-1B or 2A-2B and 3A-3B.
Five units; first semester. (Not offered in 1922-23.)

POLITICAL SCIENCE

Preparation for the major in Political Science: Political Science 1A-1B and Economics 1A-1B or History 4A-4B.
The foundation work in Political Science consists of comparative study of the governments and politics of Continental Europe, England and the United States. The aim of the course is to broaden the viewpoint of the student in matters of government and politics, and to prepare the way for more intensive study. The classroom work consists of lectures, special reports, oral and written quizzes. High School Civics is presupposed.

1A. Comparative Government
The governments and parties of England and France.
Three units; first semester.

1B. Comparative Government
The governments of Italy, Germany, Belgium, Switzerland and the United States.
Three units; second semester.
PUBLIC SPEAKING

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

1A-1B. Elements of Public Speaking

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

Three units; throughout the year.

2A. Elements of Expression and Interpretation


Three units; first semester.

118A. Art of Acting: Theory and Practice

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

Three units; second semester.

ZOOLOGY

Preparation for a major in Zoology. Required: Zoology 1A-1B and High School Chemistry or Chemistry 2A-2B. Recommended: French and German.

1A. Zoology

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

Five units; first semester. (Not offered in 1923-24.)

1B. Zoology

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. Two lectures or recitations and two laboratory periods per week.

Five units; second semester. (Not offered in 1923-24.)

10. General Biology

A brief outline of the main facts and principles of Biology with special reference to evolution, heredity and eugenics. This course is designed for those students who are to take no other lower division courses in Biology. Although no laboratory work is included, an effort will be made to illustrate the lectures by means of demonstration material so far as possible.

Three units; second semester.

10A-10B. Biology

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

Three units; throughout the year.

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. Prerequisite: Biology 10A-10B or Zoology 1A-1B or Botany 2A-2B.

Three units; first semester.

115. Eugenics

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

Two units; second semester.