Published quarterly by the
SAN DIEGO STATE COLLEGE
San Diego, California
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFFICERS OF ADMINISTRATION</td>
<td>7</td>
</tr>
<tr>
<td>CALENDAR</td>
<td>8, 10</td>
</tr>
<tr>
<td>THE COLLEGE</td>
<td>11-13</td>
</tr>
<tr>
<td>Historical Sketch</td>
<td>11</td>
</tr>
<tr>
<td>Location and Environment</td>
<td>11-12</td>
</tr>
<tr>
<td>Buildings and Equipment</td>
<td>12</td>
</tr>
<tr>
<td>Facilities for Training of Teachers</td>
<td>12</td>
</tr>
<tr>
<td>The Library</td>
<td>12</td>
</tr>
<tr>
<td>Living Accommodations</td>
<td>12-13</td>
</tr>
<tr>
<td>Student Life</td>
<td>13</td>
</tr>
<tr>
<td>Student Health Service</td>
<td>13</td>
</tr>
<tr>
<td>Placement Service</td>
<td>13</td>
</tr>
<tr>
<td>Alumni Association</td>
<td>13</td>
</tr>
<tr>
<td>FEES, EXPENSES, AND LOAN FUNDS</td>
<td>14-15</td>
</tr>
<tr>
<td>Expected Expenses for One Semester</td>
<td>14</td>
</tr>
<tr>
<td>List of Fees and Deposits</td>
<td>14-15</td>
</tr>
<tr>
<td>Loans and Scholarships</td>
<td>15</td>
</tr>
<tr>
<td>ADMISSION AND REGISTRATION</td>
<td>16</td>
</tr>
<tr>
<td>General Admission Requirements</td>
<td>16</td>
</tr>
<tr>
<td>Admission Status</td>
<td>16-17</td>
</tr>
<tr>
<td>Registration</td>
<td>17</td>
</tr>
<tr>
<td>Tests Required at Registration Time and Later</td>
<td>17-18</td>
</tr>
<tr>
<td>Late Registration</td>
<td>18</td>
</tr>
<tr>
<td>Changes in Registration</td>
<td>18</td>
</tr>
<tr>
<td>Auditors</td>
<td>18</td>
</tr>
<tr>
<td>GENERAL REGULATIONS</td>
<td>19-22</td>
</tr>
<tr>
<td>Officers for Consultation</td>
<td>19</td>
</tr>
<tr>
<td>Residence</td>
<td>19</td>
</tr>
<tr>
<td>Classification</td>
<td>19</td>
</tr>
<tr>
<td>Units of Work and Study Lists Limits</td>
<td>20</td>
</tr>
<tr>
<td>Scholarship, Grades, and Grade Points</td>
<td>20</td>
</tr>
<tr>
<td>Transcripts of Record</td>
<td>20</td>
</tr>
<tr>
<td>Eligibility for Practice Teaching</td>
<td>20-21</td>
</tr>
<tr>
<td>Probation and Disqualification</td>
<td>21</td>
</tr>
<tr>
<td>Examinations</td>
<td>21</td>
</tr>
<tr>
<td>Withdrawals from Class</td>
<td>21-22</td>
</tr>
<tr>
<td>Extension and Correspondence Courses</td>
<td>22</td>
</tr>
<tr>
<td>THE BACHELOR OF ARTS DEGREE</td>
<td>23-44</td>
</tr>
<tr>
<td>General Requirements</td>
<td>23-25</td>
</tr>
<tr>
<td>Specific Upper Division Requirements for the Liberal Arts Curricula</td>
<td>25-26</td>
</tr>
<tr>
<td>Specific Upper Division Requirements for the Teacher Training Curricula</td>
<td>26-30</td>
</tr>
<tr>
<td>Curricula Leading to Teaching Credentials</td>
<td>31-44</td>
</tr>
</tbody>
</table>
TABLE OF CONTENTS—Continued

<table>
<thead>
<tr>
<th>THE BACHELOR OF EDUCATION DEGREE</th>
<th>45-46</th>
</tr>
</thead>
<tbody>
<tr>
<td>PREPROFESSIONAL CURRICULA</td>
<td>47-55</td>
</tr>
<tr>
<td>COURSES OF INSTRUCTION</td>
<td>56-114</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>57</td>
</tr>
<tr>
<td>Anthropology</td>
<td>58</td>
</tr>
<tr>
<td>Art</td>
<td>59-62</td>
</tr>
<tr>
<td>Astronomy</td>
<td>62-68</td>
</tr>
<tr>
<td>Biological Sciences</td>
<td>68-75</td>
</tr>
<tr>
<td>Chemistry</td>
<td>75-81</td>
</tr>
<tr>
<td>Economics</td>
<td>81-88</td>
</tr>
<tr>
<td>Education</td>
<td>88-95</td>
</tr>
<tr>
<td>Engineering</td>
<td>95-102</td>
</tr>
<tr>
<td>English</td>
<td>102-108</td>
</tr>
<tr>
<td>Foreign Languages</td>
<td>108-110</td>
</tr>
<tr>
<td>Geography</td>
<td>110-111</td>
</tr>
<tr>
<td>Geology</td>
<td>112-113</td>
</tr>
<tr>
<td>Health Education</td>
<td>113-114</td>
</tr>
<tr>
<td>History</td>
<td>115-120</td>
</tr>
<tr>
<td>Journalism</td>
<td>121</td>
</tr>
<tr>
<td>Library Science</td>
<td>121</td>
</tr>
<tr>
<td>Mathematics</td>
<td>121</td>
</tr>
<tr>
<td>Music</td>
<td>121</td>
</tr>
<tr>
<td>Philosophy</td>
<td>121</td>
</tr>
<tr>
<td>Physical Education</td>
<td>121</td>
</tr>
<tr>
<td>Physical Science</td>
<td>121</td>
</tr>
<tr>
<td>Politics</td>
<td>121</td>
</tr>
<tr>
<td>Psychology</td>
<td>121</td>
</tr>
<tr>
<td>Social Economics</td>
<td>121</td>
</tr>
<tr>
<td>Speech Arts</td>
<td>121</td>
</tr>
</tbody>
</table>

DIRECTORY: 115-120
INDEX: 121

STATE DEPARTMENT OF EDUCATION

WALTER F. DEXTER: Superintendent of Public Instruction
SAM H. COHN: Deputy Director of Education
J. A. BURKMAN: State College Advisor

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MISS ALICE ROSE POWER: San Francisco

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CHARLES E. PETERSON: Dean of Men
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JOHN PAUL STONE: Head Librarian
F. W. VAN HORNE: Financial Secretary
GEORGIA C. AMSDEN: Faculty Secretary
### CALENDAR 1938-1939

**SUMMER SESSIONS, 1938.**
Term I, six weeks, June 20-July 29.
Term II, three weeks, August 1- August 19.

**FALL SEMESTER, 1938-1939.**

- **August 29:** Applications for Admission for the Fall Semester must be filed on or before this date.
- **September 6, 7, 8:** Orientation and Testing Program for all New Students (Attendance required, three full days)
  - *Aptitude Test—8:00 A.M., September 6.*
  - *Subject A—8:00 A.M., September 7.*
  - *High School Achievement—8:00 A.M., September 8.*
  - *Fundamentals Test—1:00 P.M., September 8.*
- **September 9:** Admission Day—Offices closed.
- **September 10:** Executive Committee Meeting at 1:00 P.M.
- **September 12:** Registration and payment of fees.
- **September 13:** Instruction begins—late registration fee becomes effective.
- **November 11:** Armistice Day Holiday.
- **November 24 and 25:** Thanksgiving Day Recess.
- **December 16:** Christmas Recess Begins.
- **January 3:** Classwork resumes.
- **January 19-26:** Mid-Year Examinations.

**SPRING SEMESTER, 1938-1939.**

- **January 13:** Applications for admission for the Spring Semester must be filed on or before this date.
- **January 27:** Executive Committee Meeting at 1:00 P.M.
January 28, 30, 31—Orientation and Testing Program for all New Students (Attendance required three full days)

Aptitude Test—8:00 A.M., January 28.
Subject A—8:00 A.M., January 30.
High School Achievement—8:00 A.M., January 31.
Fundamentals Test—1:00 P.M., January 31.

February
1—Registration and payment of fees.
2—Instruction begins—late registration fee becomes effective.
22—Washington’s Birthday Holiday.

April
3-7 incl.—Easter Recess.
30—Founder’s Day.

May
30—Memorial Day Holiday.

June
1-8 incl.—Final Examinations.
9—Annual Commencement.

SUMMER SESSIONS, 1939.
Term I, six weeks, June 19-July 28.
Term II, three weeks, July 31-August 19.

THE COLLEGE

Historical Sketch

The growth of the San Diego State College has involved three stages of development. It was known as the State Normal School of San Diego when it was established by legislative enactment in 1897 and opened its doors in 1898.

The second cycle of its growth began in 1921 when the legislature converted all the California normal schools into State teachers colleges and when San Diego Junior College was merged with the teachers college. Lower division courses were then available in a single institution for the various types of students in the community. From 1927 to 1934, the junior college relationship was discontinued, and the teachers college carried the lower division offerings. These offerings were enriched when the junior college arrangements were resumed in September, 1934.

The four-year curricula, leading to an A.B. degree with a major in education, were established in 1928. The State Board of Education, at that time and subsequently, authorized the following teaching credentials, which are to be granted in connection with the degree: general elementary, general junior high school, general junior high-general elementary; special secondary in art, business education, music, and physical education. Presecondary curricula were first authorized by the State Board of Education in 1928 and major subjects were approved from time to time until a total of thirteen was finally reached: art, chemistry, commerce, economics, English, geography, history, mathematics, music, physical science, physics, Romance languages, and zoology.

In September, 1935, the college entered upon its third phase when it became, by legislative enactment, the San Diego State College. This change in status permitted the college to drop the requirement in education courses from the curricula previously known as presecondary and to convert them into liberal arts curricula leading to the A.B. degree with any one of the thirteen majors enumerated above.

Location and Environment

Renowned as a winter resort with a mild but invigorating climate, San Diego has become equally famous for its cool summers. High cultural standards in art, music, literature and science create a stimulating environment for a college. Many of these advantages are to be found in the heritage resulting from the expositions of 1915-16 and 1935-36, including the buildings themselves, which portray the best types of Spanish colonial art and architecture. Housed in these buildings are the Fine Arts Gallery, exhibits in anthropology, natural history, and American archaeology which are in many respects unsurpassed. The outdoor organ, the Ford Bowl, and the horticultural gardens make Balboa Park, in which all these facilities are located, world renowned. The Scripps Institute of Oceanography, operated by the University of Cali-
Building and Equipment
On February 1, 1931, the college was moved to the new campus, located one mile north of the city's principal east-west boulevard, El Cajon Avenue. The buildings are of Spanish-Moorish architecture which is well suited to the landscape and climate of this region. They include the Academic Building, which houses lecture halls, classrooms, and administrative offices; the Science building; the Library, the Little Theater; the Training School; Scripps Cottage (a social club house for women students); the Student Building; and the Physical Education Building, a structure with adequate facilities for both men and women. The gymnasium contains a very fine basketball floor with stands that will accommodate 1500 spectators. A fine concrete stadium, constructed in a natural site, has a seating capacity that is adequate for present needs. Ultimately it will accommodate approximately 45,000 people.

Facilities for the Training of Teachers
The college maintains a modern elementary training school on the campus where it has developed an extensive program for the education of elementary school teachers. The classroom-laboratory plan which calls for the use of work-rooms, the library, and shops, affords unusual opportunities for the induction of students into teaching.

By arrangement with the San Diego City Schools, practice teaching is provided in the Euclid elementary school for one-half day throughout a semester, and a somewhat similar arrangement exists at the Woodrow Wilson Junior High School for students who are preparing to teach junior high and special secondary school subjects. Students preparing to teach only special secondary school subjects may be assigned to one of the senior high schools.

The Library
The library facilities of this college are noteworthy for an institution of this size. The library consists of 60,000 volumes selected to meet the requirements of a modern educational institution. Seven professionally trained librarians are available to render assistance to students in their reading and reference work.

The Training School Library, representing a collection of 9000 volumes possesses equipment and building facilities that are unique.

Living Accommodations
The college does not maintain dormitories since nearly all of the students live with parents or guardians. Living arrangements for students whose homes are not in San Diego or within commuting distance are made through the offices of the Dean of Women or the Dean of Men. All women students are urged to live in the residence hall adjoining the campus. Careful consideration is given to study conditions, healthful living and adequate social opportunities. Room and board may be secured for as little as $160.00 per semester, payable in four installments. Opportunities to reduce this figure by working a few hours each week are occasionally available. Reservations should be made in advance in the Office of the Dean of Women. Where students find other accommodations more desirable, written permission from parents must be secured and filed with the Dean of Women.

Student Life
A rich field of extra-curricular activities is available to the student throughout his college life. The student is urged to carefully select these activities in order that he may profit by these extra-class experiences without lowering his standards of scholarship. The Student Handbook, available at time of registration, gives information concerning activities which include organizations in every department of the college, and opportunities for individual and group experience in the social, athletic, fraternal, religious and governmental life of the campus.

Student Health Service
The Health Department is maintained for the protection and care of student health. A complete physical examination is required of each student upon admission to college. Careful attention is given to cases undergoing remedial treatment or to cases in which a modification of study load or of participation in physical activities seem advisable.

A representative of the Health Department is available throughout the entire day for consultation and emergency treatment. Students who have been absent because of illness should receive clearance from the Health Department before returning to classes.

Placement Service
The college offers placement services of three distinct types for students and graduates of this institution:

1. Students who seek part-time employment may register with the Dean of Women or the Dean of Men.

2. A Placement Office is maintained by the college as a clearing house of employment information for employers of State College graduates. While the purpose of this office is to assist candidates in securing positions, its primary aim is to bring about better adjustment between the teacher and community.

3. The Placement Office also serves students in liberal arts curricula who desire employment.

Alumni Association
The college has an active Alumni Association. Since its reorganization in March, 1921, the association has steadily gained in membership. The annual Homecoming is an important event each year; other meetings take place on dates of important athletic contests. The association also sponsors the organization of Aztec clubs in various communities. Information concerning the association may be obtained by writing the secretary at the college.
FEES, EXPENSES, AND LOAN FUNDS

Probable Expenses for One Semester
An estimate of the expense of attendance for one semester is given below. No estimate is made as to the cost of clothing, or other personal items, since these figures vary with the demands of the individual. Laboratory fees are additional.

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Minimum</th>
<th>Average</th>
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<tr>
<td>Fees and Deposits</td>
<td>$20.00</td>
<td>$27.50</td>
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<tr>
<td>Books</td>
<td>10.00</td>
<td>15.00</td>
</tr>
<tr>
<td>Board and Room</td>
<td>125.00</td>
<td>150.00</td>
</tr>
<tr>
<td>Incidentally (transportation, lunches, student organizations, etc.)</td>
<td>35.00</td>
<td>50.00</td>
</tr>
</tbody>
</table>

Total Minimum: $190.00, Total Average: $242.00

Before enrolling in college, the student should possess sufficient resources to meet the minimum expenses for one semester. A limited amount of clerical work in offices and in the library may be offered from time to time, but ordinarily it is not sufficiently remunerative to reduce expenses materially. An employment service is conducted by the Dean of Women and the Dean of Men to assist students who must earn part of their expenses.

List of Fees and Deposits (Subject to Revision)

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>Evaluation of record for advanced standing</td>
<td>$2.00</td>
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<tr>
<td>Duplicate of Library Card</td>
<td>.10</td>
</tr>
<tr>
<td>Duplicate registration book</td>
<td>.10</td>
</tr>
<tr>
<td><strong>Transcript of record (first copy free)</strong></td>
<td>.50</td>
</tr>
<tr>
<td>Special Examination</td>
<td>2.00</td>
</tr>
<tr>
<td>State Teaching Credentials***</td>
<td></td>
</tr>
<tr>
<td>Elementary</td>
<td></td>
</tr>
<tr>
<td>Elementary and Junior High</td>
<td></td>
</tr>
<tr>
<td>Special Secondary</td>
<td></td>
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<tr>
<td>School Administration</td>
<td></td>
</tr>
<tr>
<td>School Supervision</td>
<td></td>
</tr>
<tr>
<td>Each credential</td>
<td>3.00</td>
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PAYABLE DURING SEVENTH WEEK OF EACH SEMESTER

<table>
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<th>Item Description</th>
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<td>Late payment of course fees</td>
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<tr>
<td>Library</td>
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<tr>
<td>Health</td>
<td>.50</td>
</tr>
<tr>
<td>Towel, Men</td>
<td>1.50</td>
</tr>
<tr>
<td>Towel, Women</td>
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</tr>
</tbody>
</table>

Additional laboratory fees and charges for certain courses are payable during the seventh week of each semester. These fees range from fifty cents to seven dollars and fifty cents per course.

Loans and Scholarships

Scholarships for both men and women have been made available through the efforts of alumni, and civic organizations. Superiority in scholarship and worthiness from the point of view of need are the standards upon which selection is based. Scholarship aid is therefore restricted for the most part to students who have completed the lower division of the college.

Both long and short term loans are available to students who have been in attendance for at least one year and who have given evidence of ability to do satisfactory college work. Application for loans is made to the Committee on Loans and Scholarships through any Dean of the college.

**The 50-cent fee must accompany each application for a transcript of record. Ten cents will be charged for each duplicate of this record which accompanies the original.**

***The credential fee is collected through the college by post office money order payable to the State Department of Education. This fee will be $5.00 for students who have not resided in California one year previous to the date of their application.**
ADMISSION AND REGISTRATION

General Admission Requirements

High school graduates and other applicants possessing equivalent preparation may be admitted to this college upon evidence of fitness to profit by college instruction, such fitness to be shown by previous scholastic records, by evidence of good moral character and personal qualifications, and by a satisfactory score on a standard college aptitude test. Regular matriculation will be granted only after the satisfactory completion of a full semester's program of study with records indicating probable success in the chosen curriculum.

Admission Status

Students will be granted regular status if they have earned eight or more recommended units in English, Social Science, Foreign Language, Mathematics, Natural Science, and related fields, during the tenth, eleventh, and twelfth years in high school. Lacking this, students who have enrolled for nine or fewer units in these fields* will be granted regular status if they have earned recommended grades in three-fourths of these subjects and in three-fourths of other subjects attempted.*

Students will be granted provisional status if they have earned six or seven recommended units in English, Social Science, Foreign Language, Mathematics, Natural Science, and related fields, during the tenth, eleventh, and twelfth years in high school. Lacking this, students who lack the specified status if they have earned recommended grades in three-fifths of these subjects and in three-fifths of other subjects attempted.*

Students who do not qualify for regular or provisional status are classified as non-degree students and must enroll in one of the non-degree curricula.** Many students with regular or provisional status enroll in a non-degree curriculum.

Certificates of successful examination before the College Entrance Examination Board will be accepted when candidates cannot meet the above scholarship requirements.

Credit earned in recognized institutions of collegiate grade shall be evaluated and advanced standing allowed on the basis of the evidence submitted. Credit toward the fulfillment of graduation requirements will be allowed of this institution. Applicants for advanced standing must show an average grade of C or better in all college work previously undertaken, with freshman standing.

* During their last three years in high school
** For further particulars see Non-degree Bulletin for 1938-39.

Not more than sixty-four semester hours of junior college work may be allowed for credit.

Students who seek to gain admission with advanced standing must furnish complete transcripts of record for all work attempted beyond the eighth grade. A two dollar evaluation fee must accompany the application for admission.

Applicants over twenty-one years of age, who are not high school graduates and who do not possess the equivalent preparation but who receive a satisfactory score on a standard college aptitude test, may be granted provisional admission as special students. Such persons may be granted full matriculation only upon the removal of all deficiencies and upon the completion of one full semester of satisfactory college work in the chosen curriculum.

Registration

Registration for the fall semester of 1938-39 will take place on September 12, and for the spring semester on February 1. Candidates for admission may obtain an application blank from the Registrar which must be filed, with complete transcripts of record, two weeks before registration.

The college year is divided into fall and spring semesters of eighteen weeks each, followed by a summer session consisting of terms of six and three weeks, respectively. Students may enter at the beginning of either semester or at the beginning of either of the summer terms.

The summer session meets the needs of regular students who wish to gain credit toward the bachelor's degree, of teachers in service, and students who wish to secure supplemental credit or to shorten the time for completion of their curricula.

Tests Required at Registration Time and Later

1. A physical examination is required of all students upon entering the college. Appointments for this examination are made during registration.

2. All entering students are required to take the College Aptitude Test. Exceptions may be made for students who register for five units of work or less, for former graduates of this college, and for graduates of approved four-year colleges.

3. All entering students who are not transferring with advanced standing must take a High School Achievement Examination and a Reading Test.

4. The Subject A Test (English Composition) is required of all entering students. English 1A must be taken by all students whose tests indicate that they are not qualified for English 1B, even though they may not intend to enroll in English 1B. No student may enroll for his third semester of attendance unless he has qualified for English 1B or is enrolled in English 1A. Exceptions may be made for students transferring credit in English from other colleges.

5. Passing the Fundamentals Test in reading, spelling, arithmetic and handwriting, and a Speech Test are prerequisites for admission to upper division courses in teacher training curricula. Students should take these tests at the beginning of the sophomore year in order that they may have sufficient time to make up deficiencies, if any exist, before applying for
admission to the upper division of teacher training curricula. Exceptions may be made for former graduates of this or other California State teacher training institutions who have been teachers in service.

**Late Registration**

A student who registers after the first week of the semester is subject to a limitation of his program. A fee of one dollar must be paid for registration after the regular registration period. After the first week of the semester, the instructor’s approval must be secured for each course entered.

**Changes in Registration**

Changes in program may be made only with the approval of the proper dean. Petitions for changes in program may be secured at the Registrar’s office.

A statement regarding withdrawals from class is to be found on page 21.

**Auditors**

Auditors register in the usual way and pay the same fees as those who are registered for credit.

**GENERAL REGULATIONS**

**Officers for Consultation**

Concerning the housing and living arrangements of students, personal problems, part-time employment, etc.—The Dean of Women; The Dean of Men.

Concerning the scheduling and arrangement for all student social affairs —The Dean of Women.

Concerning admission, program of studies, credits, degree requirements, etc.—The Registrar; The Dean of Liberal Arts; The Dean of Education.

Concerning health and physical condition—The Health Department.

Concerning student-body affairs, student-body policy, the executive officers of the student body—The Dean of Liberal Arts; The Dean of Women; The Dean of Men.

Concerning appointments to teaching positions and other types of full-time employment—The Director of Placement.

Concerning admission to Upper Division Teacher Training Curriculum, practice teaching, credential requirements, etc.—The Dean of Education.

Concerning use of the buildings—The Dean of Women; The Dean of Men.

**Residence**

For fee paying purposes there can be only one residence. The residence of the father during his life, and after his death, the residence of the mother is the residence of the minor. In case of legal separation or divorce, the minor’s residence is the residence of the parent with whom he makes his home.

Barring legal separation or divorce, the residence of the husband is the residence of the wife.

**Classification**

*Full time students* are those students who have complied with the requirements for admission and are registered in more than 5 units of work. Full time students are expected to carry 12 units of work unless excused.

*Limited students* are partial course students who, for adequate reasons, have been permitted to register for 5 units of work or fewer.

*Special students* are mature students who have not satisfied all entrance requirements but 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 0 to 29 units of work are classified as freshmen; those who have completed 30 to 59 units, as sophomores; those who have completed 60 to 89 units, as juniors; and those who have completed 90 or more units, as seniors.
Units of Work and Study-Lists Limits

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

Sixteen units, in addition to physical education (1 unit), constitute a normal semester's program for all students. An entering freshman, however, is allowed to enroll for a maximum of 17 units, and all other students for a maximum of 18 units, provided such additional enrollment seems to the adviser necessary or advisable in order to round out the study program.

Ordinarily, only 16 units, in addition to physical education, will be credited toward graduation; except that, after a student's first semester at the college, a program of 17 units will be credited provided the student was registered for at least 12 units in the preceding semester and attained an average of not less than 1.5 grade points; 18 units will be credited if the student attained an average of not less than 2.0 grade points.

Any course in which a student received a passing grade may be used in the satisfaction of course requirements, even though such course is in excess of the units credited for graduation.

Credit for a program that does not conform to the above regulations can be obtained only through a petition addressed to the Scholarship Committee. No student will be allowed to register for less than 12 units without the approval of his academic dean.

Scholarship, Grades, and Grade Points

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

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

The grade E is used to record work which is of low order but which may be made passable. If by the close of the next semester the work has been satisfactorily completed the grade E is changed to a D; otherwise it is changed automatically to an F. The grade I is used to record work of higher order but which is incomplete for some acceptable reason, ordinarily, to change an I to another grade, the work must be completed within a year.

A student must earn at least a C average in all work undertaken at the college to qualify for a certificate in any curriculum, a diploma of graduation, or a transcript of record with recommendation to another collegiate institution.

Transcripts of Record

Students may secure one official transcript of record without fee. Therefore, requests for a transcript should be accompanied by a transcript of record from other schools will not be returned or copies of their entire record, and also his record for the preceding semester, does not average at least a C grade.

Probation and Disqualification

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

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

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

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

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

Examinations

No final examinations shall be given to individual students before the regular final. Any student who finds it impossible to take a final examination on the date scheduled must make arrangements with the instructor to have an incomplete grade reported and must take the deferred final examination not later than the end of the second semester following that in which the incomplete was given. No exceptions shall be made to this rule without the approval of a dean and the instructor concerned.

All final examinations shall be written in Official Examination Books or other forms which shall be furnished by the college and distributed by the instructor at the beginning of the examination period. No books or papers of any kind shall be brought into the examination room, except by special order of the instructor.

Students shall pay a fee of two dollars at the business office for every special examination given. The instructor shall give such examination only when the student presents a receipt showing that the fee has been paid.

Withdrawals from Class

A student may not withdraw from class without the permission of the proper study-lists officer* upon an official form which must be filed in the Registrar's Office. If a student withdraws from class for acceptable reasons during the first six weeks of a semester, a grade of W will be recorded upon his permanent record for those classes which he has dropped. If he withdraws from class for acceptable reasons during the second six weeks period, a grade of W will be recorded upon his

* The Registrar's Office will designate the study-lists officer whose signature may be obtained.
permanent record and a grade, representing the level of work maintained up to the time of withdrawal, will be recorded upon a supplementary record. If he withdraws from class during the last six weeks of a semester, either an I or an F will be recorded upon his permanent record.

Students who withdraw from all classes during the course of a semester must petition the Executive Committee at such time as they may seek readmission to the college.

Extension and Correspondence Courses

The amount of credit for extension and correspondence courses acceptable in fulfillment of the requirements for the Bachelor of Arts degree will depend upon the nature of the courses, the quality of the work done, and the students' preparation for work in the field of the course. The college reserves the right to limit credit to such courses as have been approved, and the total of such acceptable credit to twelve units.

THE BACHELOR OF ARTS DEGREE

General Requirements for the Bachelor of Arts Degree

San Diego State College offers the following types of curricula leading to the A.B. Degree: (1) the curricula leading to the California teaching credentials, and (2) the Liberal Arts curricula. With slight variations in definition, many of the basic requirements are the same.

A minimum of 124 units of college work, representing a four-year course, is required for the Bachelor of Arts degree. Not less than 54 of these units must be completed in the junior and senior years. At least 60 units must be earned in this college, and not less than 24 of these residence units must be taken with the rank of senior. At least 12 units must be taken in the fall or spring semester of the final year before graduation; or at least 16 units must be completed in not less than two consecutive summer sessions.

LOWER DIVISION

Subject Matter Requirements in the Lower Division

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education</td>
<td>2</td>
</tr>
<tr>
<td>Health Education 1 or 2</td>
<td>2</td>
</tr>
<tr>
<td>English</td>
<td>6</td>
</tr>
<tr>
<td>Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>15</td>
</tr>
<tr>
<td>Mathematics A and B or high school algebra and geometry</td>
<td>0-4</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>14</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>14</td>
</tr>
<tr>
<td>Year course in foreign language or mathematics, or philosophy</td>
<td>6</td>
</tr>
<tr>
<td>(in addition to the foregoing minimum requirements in foreign language and mathematics)</td>
<td></td>
</tr>
<tr>
<td>Lower division subjects required for the major, unless included in one of the above requirements. See pages 25 or 28</td>
<td>12</td>
</tr>
</tbody>
</table>

Lower division subjects required for the major. See pages 25 or 27.

Electives to make total of 64 units.

Explanation of Lower Division Requirements

English This requirement may be satisfied either in the freshman year or in the sophomore year. To be chosen from the following courses: English 1B, 2, 3, 4A, 4B, 52A, 52B, 56A, 56B.

Psychology Psychology 1A, or 2A.

Foreign Languages At least 15 units in not more than two languages are required in the lower division, except that only 10 units in a modern language are required in the commerce major and no language is required in teacher training. Each year of high school work in a foreign language will be counted in satisfaction of 3 units of this requirement. A minimum

* Not required in the teacher training curricula.
of two high school year-courses is acceptable in any language except Latin, in which a year-course is permissible.

Social Sciences Fourteen units from two or more departments are required as follows:
(a) Social Science 1.
(b) Additional lower division courses to meet the social science requirement must be chosen from the following list and all except teacher training student must include one of the year courses marked with an asterisk: Anthropology 10A-10B, 11A-11B; Sociology 1; History 4A-4B, 5A-5B; Political Science 1A-1B, 6A-6B; Economics 1A, 2A, 3A, 4A-4B, 5A-5B; Mathematics 1A, 1B, 2A, 2B, 3A-3B; 4A, 5A, 6A; Biology 1A, 1B, 2A, 2B; Chemistry 1A, 1B; English 1A-1B; 2A-2B, 3A-3B; Foreign Language 1A-1B, 2A-2B, 3A-3B; History 1A-1B; and Social Sciences 50.
(c) A maximum of two semester of fourth-year high school courses may be taken with grades not lower than C may be used to satisfy three units of the social science requirement. A maximum of two units of the social science requirement may be chosen from upper division courses if high school senior courses have been used to satisfy the requirement, otherwise a maximum of five units may be counted.

Natural Sciences Fourteen units are required as follows:
(a) Biological Science 1 or a year course in high school or college biology, botany, physiology or zoology.
(b) Physical Science 1 or a year course in high school or college chemistry or physics.
(c) Additional lower division courses to meet the natural science requirement must come from the following list and must include one of the laboratory courses marked with an asterisk. High School courses: a maximum of two years, 6 units, of third and fourth year courses in botany, chemistry, physics, physiology, zoology and advanced biology may be used to satisfy the natural science requirement. College courses: Astronomy 1, 9, 11; Biological Science 1, 10A-10B; Botany 2A-2B, 3A-3B, 4A, 5A, 6A; Chemistry 1A, 1B; Physics 1A-1B, 2A-2B, 3A-3B, 4A, 5A, 6A; Zoology 1A-1B, 2A-2B, 3A-3B, 4A, 5A, 6A.
(d) A maximum of 2 units of this requirement may be chosen from upper division courses.

Mathematics High school elementary algebra or Mathematics A and high school plane geometry or Mathematics B.

Additional Year Course In addition to the foregoing minimum requirements in foreign language and mathematics, 6 units must be chosen from Modern foreign language: Any two consecutive college courses, or any two consecutive high school year courses.

Latin: Two years of high school courses in Latin.

Mathematics: 1A and 1B, 3A-3B, 4A, 5A, 6A; 1C and 1D, 2A, 2B, 3A, 3B; 4A, 5A, 6A; 7A, 7B, 7C, 7D.

Philosophy: 5A-5B.

Lower Division Preparation for the Minor See description of requirements for teaching minors on page 28. and for liberal arts minors on pages 56 to 114.

Lower Division Preparation for the Major See description of requirements for teaching majors on page 27. Specific requirements for the majors in the liberal arts curricula are listed in connection with the descriptive list of courses in each major field (see pages 56 to 114).

Specific Upper Division Requirements for the Liberal Arts Curricula

The liberal arts curricula lead to the bachelor of arts degree with majors in art, chemistry, commerce, economics, English, geography, history, mathematics, music, physical science, physics, Romance languages and zoology and qualify for graduate work in these fields in recognized American colleges and universities. Completion of the requirements of these curricula also enables the graduate to satisfy undergraduate requirements for the general secondary credential which, with graduate work, will enable the holder to teach in a senior high school or junior college.

The junior certificate will be granted on the completion of 64 units and satisfaction of all lower division requirements.

UPPER DIVISION

Subject Matter Requirements

Political Science 101, 14A-14B, 15A-15B, 175A-175B or History 171A-171B or 173A-173B
Second minor (minimum in upper division courses) 18 units
Major (upper division courses) 24 units

At least 40 units in upper division courses must be completed, 30 of which must be earned after all lower division requirements have been satisfied.

Explanation of Requirements

Political Science 101 Political Science 113 or 152 or 175A-175B or History 171A-171B or 173A-173B will be accepted as substitutions for this requirement.

Minors A minimum of 12 units in each of two minor subjects is required. At least 6 units in each minor shall be in upper division courses completed in the junior and senior years. The entire 12-unit requirement for a minor may be met with upper division courses provided these courses have no lower division prerequisites. The prerequisites for upper division courses in various departments may be found in the course descriptions on pages 56 to 114. Minors are available in the following subjects: anthropology, art, botany, chemistry, economics, education, English, foreign language, geography, geology, history, mathematics, music, philosophy, physics, political science, psychology, zoology. Information concerning a minor in education (presecondary curriculum) is to be found on page 47.

Majors The specific requirements for the degree in each major field are listed in connection with the descriptive list of courses in each field (see pages 56 to 114). The student is advised to choose his major as early in his college course as practicable so that he may be able to plan his work according to the major requirements. Failure to meet the lower division requirements of the major department before the junior year may make it impossible to satisfy the upper division requirements within the normal period of two years.
Limited Electives
A total of not more than 12 units of applied and vocational courses listed below will be counted toward junior standing or the A. B. degree in Liberal Arts: Art 7, 14A; Accounting 15A, 15B, 16A, 16B, 65A, 65B; Business Economics 1A, 1B; all courses in education except those listed as available for credit toward a minor (see pre-secondary curriculum page 47); English 22, Journalism 53A, 53B, 153A, 153B; Library Science 10; Merchandising, all courses; all courses in Applied Music; Physical Education, all courses except 1A, 1B, 1C, 1D, 50, 58A, 58B, 35A, 35B, 102, 161, 164A, 164B, 170; Secretarial Training, all courses; and all courses which are offered exclusively to Special Non-degree students.

Specific Upper Division Requirements for the Teacher Training Curricula
Admission to the Teacher Training Curricula Students who have been in regular attendance at the college should make application for admission to the teacher training curricula during the final semester of their sophomore year. Students who have completed three or more semesters of work in another college, upon transferring to San Diego State College, should make application as soon as they can meet the preliminary requirements.

The preliminary requirements which must be met before making application are:
1. A satisfactory score in a college aptitude test taken at the college. (See college calendar for date of test.)
2. Evidence of satisfactory ability in arithmetic, handwriting, reading and spelling indicated by having passed the fundamentals test. (See college calendar for date of test.)
3. Assurance of correct speech habits and voice control by having satisfactorily completed a course in corrective speech or by having passed a speech test given by the college.
4. Assurance of physical fitness by having passed a prescribed examination given by one of the college physicians.
5. If the student is to be a candidate for one of the special secondary credentials, he must furnish a recommendation from the chairman of the department stating that the student has ability and shows promise of teaching success in his field and that the department looks with favor upon his application.
6. The completion of the first two years of a given curriculum, or its equivalent, with a scholarship grade of C or better.

After the student has submitted evidence of having met the preliminary requirements in his application for admission to the teacher training faculty for this purpose. In the appraisal of applicants the State Board of Education: intelligence, scholarship, professional and personal characteristics, and language usage, and of record has been made, for students entering with advanced standing.
After an interval of five years subsequent to last attendance, evaluations are subject to revision with respect to deduction of credit in education courses and such new requirements as may be put into effect.

Students formerly in attendance will not be considered to be working in the degree curriculum until an evaluation and statement of credit has been secured from the registrar's office. All courses taken either at this college or elsewhere must be approved by an official adviser or the Registrar (for those taken elsewhere) in order to be credited toward meeting degree requirements.

Teaching Majors A teaching major consists of a minimum of twenty-four units in a field other than education, at least twelve of which must be in the upper division. A C average in scholarship is required in all upper division courses in the field of the teaching major. A major for a special secondary school credential varies from twenty-four to forty units as specified in the requirements for the various curricula. Teaching majors may be established in the following fields: English, foreign languages, general science, mathematics and social sciences (economics, geography, history, political science) and in the special secondary school credential fields of art, business education, music and physical education.

Candidates for the teaching major in the field of English are expected to show credit in English 1A, 1B and eight or nine units of elective in the lower division; English 130A and 130B and six units of electives in the upper division.

Candidates for the teaching major in the field of general science must meet the basic requirements in science for the lower division including Biological Science 10A-10B, or a substitute course. The remaining thirty required units to complete the major must include a year course in the biological science, unless Biological Science 10A-10B is taken in college, a year course in high school or college physics and a concentration of twelve units, at least six of which are upper division, in one major subject (botany, chemistry, physics, zoology).

Candidates for the teaching major in the field of the social sciences must meet the general requirements of fourteen units of social science in the lower division including Geography 2 and Social Science 1. The remaining twenty units must be chosen so as to include a year course of six units in history in either the lower or upper division and a concentration of twelve units, at least six of which are upper division, in one major subject (economics, geography, history, political science). The following courses may not be applied to the teaching major in social science: Economics 14A-14B, 18A-18B, 140, 160A-160B, 161, 162, 163, 164, 165; and Merchandising, all courses.

Teaching Minors A teaching minor consists of twelve units in a given field, at least six of which must be in upper division courses. Teaching minors may be established in the following fields: art, business education, English, foreign language, general science, mathematics, music, social sciences (economics, geography, history, political science) and physical education. Psychology may be used for a teaching minor in preparation for the elementary and the special secondary school credentials.

Candidates for the teaching minor in English must show credit in 1A, 1B and three units elected from 2, 3, 4A, 4B, 52A, 52B; 10A in the lower division; three units from English 130A or 130B and three units elected from English 101, 117, 130A or 130B in the upper division.
Candidates for a teaching minor in physical education for women must show credit for Physical Education 36A, 36B, 37 or 38A, 38B, 58, and Health Education 2 in the lower division; six units elected from Physical Education 102, 157A, 157B, 158, 160, 161, 164, or 170 in the upper division.

Major and Minor Credential Requirements
1. For the junior high school credential a teaching major and a teaching minor in subjects taught in a junior high school are required. The combination of a special secondary school credential with the junior high school credential requires the completion of another teaching major than that required for a special secondary school credential.
2. For the elementary school credential two teaching minors are required.
3. For a special secondary school credential, the completion of the major in the special subject field (see detailed outlines of curricular patterns for credentials) and a teaching minor are required.
4. The State Board of Education has placed a limitation of a maximum of forty units of credit in one subject matter field that may be applied toward the minimum of one hundred and twenty-four units required for the A.B. degree.

Preparation for Graduate Work Students who take the A.B. degree with only a special credential and who contemplate doing graduate work for a master's degree in an academic field at another institution of higher learning, will find it advantageous to use their electives to lay a foundation for that work. A student who plans to do graduate work in the field of his major is advised to so arrange his electives as to complete the equivalent of all of the requirements listed in the curriculum for the A.B. degree before entering upon their preparation for these graduate units.

Political Science The course in Political Science 101 or its equivalent is required of all graduates of the college or those securing a teaching credential through the college. The following courses are accepted as equivalents: Political Science 113, 152 or 175A-175B; History 171A-171B or 173A-173B.

Upper Division Course Requirements At least 40 units in upper division courses must be completed, 30 of which must be earned after all lower division requirements have been satisfied.

Teacher Training Curricula and Teaching Credentials All Teacher semester units in education in addition to the general degree requirements previously listed:
A. The college offers curricula leading to the A.B. degree with the following teaching credentials:
1. Elementary school credential authorizing the holder to teach any or all subjects in any grade of any elementary school in California.
2. Junior high school credential authorizing the holder to teach any or all subjects in the seventh, eighth, and ninth grades of any junior high school or secondary school in California. After September 15 of the school year in which the holder has completed the requirements for the credential, the certificate will be issued only in combination with the teaching major in the special secondary teaching major and in education as a preparation for graduate work for the general secondary credential.
3. Special secondary credential in art authorizing the holder to teach art subjects in any grade of the public schools of California.
4. Special secondary credential in business education authorizing the holder to teach commercial subjects in any grade of the public schools of California.
5. Special secondary credential in music authorizing the holder to teach music in any grade of the public schools of California.
6. Special secondary credential in physical education authorizing the holder to teach physical education in any grade of the public schools of California.

B. The college offers the following credentials to persons meeting the qualifications designated for each:
1. Diploma of Graduation: A diploma of graduation carrying with it any of the credentials the college is authorized to grant, or any combination of them, may be granted to the holder of a bachelor's degree from an accredited college, upon the completion of a minimum of twenty-four units. Ordinarily at least one semester of residence during the academic year is required subsequent to securing the degree; the remainder of the work may be in summer session or, in the case of students who had attended the college prior to attaining the degree elsewhere, in credit earned as an upper division student. The candidate for a diploma must meet the equivalent of all of the requirements listed in the curriculum for the A.B. degree with the credential or credentials sought.
2. Administration and Supervision Credentials: Candidates desiring to qualify for administration and supervision credentials will meet the credential requirements as outlined in State Department of Education Bulletin No. 12, Regulations Governing Granting of Credentials and Certificates for Public School Service in California. Further information will be furnished by the college upon request by the applicant.
3. Special Secondary Credentials in Speech Arts and Speech Correction: These credentials may be secured from the Commission on Credentials upon the recommendation of the candidate by the college. Courses prescribed by the State Board of Education are offered at the college. Candidates are advised to consult with the dean of education before entering upon their preparation for these credentials.

Combination of Credentials In the case of students seeking more than one teaching credential, the curriculum for each credential must be completed in full, with only such exceptions as are indicated in the requirements. For each credential in addition to one, at least twelve additional units of credit must be earned, this work to be in electives in nonprofessional fields only, after the basic curriculum requirements have been satisfied. If the requirements for the general elementary credential and the general junior high school credential are completed at the same time, an exception will be made to this rule.

A combination of the elementary school credential with the junior high school credential may be secured by completing the requirements for the elementary school credential, substituting Education 107, History of Education, for Education 106, Philosophy of Education, and by completing the following additional requirements: (a) a teaching major; (b) a
methods course in the field of the teaching major; (c) a minimum of three units of practice teaching in a junior high school or the equivalent; (d) a course in Education 121, *Principles of Secondary Education*.

**Limited Electives.** Credit for applied and vocational subjects will be allowed in fulfillment of the requirements for the A.B. degree whenever they are required in any credential pattern completed by the student.

A maximum of six units of credit in the following courses may be allowed to fulfill the requirements of any credential pattern only after the student has received permission from the Dean of Education: Art 7, 14A; Accounting 15A, 15B, 16A, 16B, 65A, 65B; Business Economics 1A, 1B; Engineering 22; Journalism 53A, 53B, 153A, 153B; Library Science 10; Merchandising, all courses; Applied Music; Physical Education, all activity courses beyond the requirements specified in curricular patterns; Secretarial Training, all courses; and all courses which are offered exclusively to Special Non-degree students.

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### Curricula Leading to Teaching Credentials

#### A.B. Degree With Elementary School Credential

<table>
<thead>
<tr>
<th>Freshman Year</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
</tr>
<tr>
<td>Art 6A, Structure</td>
<td>3</td>
</tr>
<tr>
<td>Biological Science 10A, Science of Life</td>
<td>3</td>
</tr>
<tr>
<td>English 1A or 1B, Freshman English</td>
<td>3</td>
</tr>
<tr>
<td>Geography 1, Elements (Natural Science)</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 1A or 36A</td>
<td>2</td>
</tr>
<tr>
<td>Health Education 1 or 2</td>
<td>2</td>
</tr>
<tr>
<td>Electives</td>
<td>4</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
</tr>
<tr>
<td>Biological Science 10B, Science of Life</td>
<td>3</td>
</tr>
<tr>
<td>English 1B, 3, 4A, 4B, 52A, 52B, 56A, 56B</td>
<td>3</td>
</tr>
<tr>
<td>Geography 2, Regions (Social Science)</td>
<td>3</td>
</tr>
<tr>
<td>Music 1A, Music Reading and Ear-training</td>
<td>2</td>
</tr>
<tr>
<td>Physical Education 1B or 36B or 36C</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sophomore Year</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
</tr>
<tr>
<td>English (selected from 2, 3, 4A, 4B, 52A, 52B, 56A, 56B)</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 1C and 37, Games and Rhythms for the elementary school</td>
<td>2</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
</tr>
<tr>
<td>Physical Education 1D or 38A</td>
<td>4</td>
</tr>
<tr>
<td><strong>Either Semester</strong></td>
<td></td>
</tr>
<tr>
<td>Art 61A, Elementary Crafts</td>
<td>2</td>
</tr>
<tr>
<td>Art 61B, Elementary Crafts</td>
<td>2</td>
</tr>
<tr>
<td>Psychology 1A or 2A, General</td>
<td>3</td>
</tr>
<tr>
<td>Social Science 1, Pol., Soc. and Econ. Problems</td>
<td>3</td>
</tr>
<tr>
<td>Electives to meet requirements in Natural Science, Social Sciences, and minors</td>
<td>18-21</td>
</tr>
<tr>
<td></td>
<td>32</td>
</tr>
</tbody>
</table>

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1. Possible substitutions for the requirement in Biological Science 10A-10B.
   1. High school Biology (year course with laboratory work).
   3. High school Botany and Zoology 1A-1B.
   4. High school Zoology and Botany 2A-2B.
   5. High school Zoology and high school Botany.
   6. Biological Science 1 and Physical Science 1—6 units.

2. Depending on result of Subject A test.

3. See Subject Matter Requirements in the Lower Division for total requirements in English, Natural Sciences, and Social Sciences.

4. Unless minor is English, General Science or Social Sciences.

5. If 6 units in minor taken in freshman year, none needed in sophomore year.
A. B. degree with Junior High School credential Note: After September 15, 1938, the Junior High School credential will be issued only in combination with one of the other teaching credentials, or with the additional courses in Education and the major subject field required as preparation for graduate work and the general secondary credential.

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological Science 10A,*</td>
<td>3</td>
</tr>
<tr>
<td>Science of Life</td>
<td></td>
</tr>
<tr>
<td>English 1A or 1B</td>
<td>1 or 3</td>
</tr>
<tr>
<td>Geography 1, Elements (Natural Science)</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 1A or 36A</td>
<td>2</td>
</tr>
<tr>
<td>Health Education 1 or 2</td>
<td>2</td>
</tr>
<tr>
<td>Electives,* including major and minor*</td>
<td>6 or 4</td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological Science 10B</td>
<td>3</td>
</tr>
<tr>
<td>Science of Life</td>
<td></td>
</tr>
<tr>
<td>English 1B or 2, 3, 4A, 4B, 52A, 52B, 56A, 56B</td>
<td>3</td>
</tr>
<tr>
<td>Geography 2, Regions (Social Science)</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 1B or 36B</td>
<td>2</td>
</tr>
<tr>
<td>Electives,* including major and minor*</td>
<td>6 or 4</td>
</tr>
</tbody>
</table>

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>English (selected from 2, 3, 4A, 4B, 52A, 52B, 56A, 56B, unless taken in freshman year)</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 1C or 38A</td>
<td>3</td>
</tr>
<tr>
<td>Psychology 1A or 2A, General</td>
<td></td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education 1D or 38B</td>
<td></td>
</tr>
<tr>
<td>Electives,* including major and minor* (for the year)</td>
<td>22-25</td>
</tr>
</tbody>
</table>

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education 106, Philosophy of Education</td>
<td>3</td>
</tr>
<tr>
<td>Electives including two minors and political science requirement (for the year)</td>
<td>21 or 19</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education 108, Practice Practicum—Lower Levels</td>
<td>13</td>
</tr>
<tr>
<td>Psychology 102, Genetic</td>
<td>3</td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education 108, Educational Measurements</td>
<td>3</td>
</tr>
<tr>
<td>Physical Science 101, American Institutions (or substitute)</td>
<td>2</td>
</tr>
<tr>
<td>Psychology 102, Genetic</td>
<td>3</td>
</tr>
</tbody>
</table>

* Candidates for the Elementary School Credential in combination with any other type of credential are required to do not less than 6 units of practice teaching in the elementary school.
* Education 107, History of Education, may be substituted for Education 106, Philosophy of Education with the approval of the Dean of Education.
* See page 24.
** See page 24.

**Summary**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 6A, 61A, 61B</td>
<td>6</td>
</tr>
<tr>
<td>Education 106, 108, 116, 147, 148</td>
<td>38 or 39</td>
</tr>
<tr>
<td>English</td>
<td>6 or 7</td>
</tr>
<tr>
<td>Health Education 1 or 2</td>
<td>2</td>
</tr>
<tr>
<td>Music 1A</td>
<td>2</td>
</tr>
<tr>
<td>*Natural Sciences (incl. Biol. Science 10A-10B and Geog. 1)</td>
<td>14</td>
</tr>
<tr>
<td>Physical Education 1A-B-C, 37 or 36A-36B, 37, 38A</td>
<td>2</td>
</tr>
<tr>
<td>Political Science 101</td>
<td>2</td>
</tr>
<tr>
<td>Psychology 1A or 2A, 102</td>
<td>6</td>
</tr>
<tr>
<td>**Social Sciences (including Social Science 1 and Geography 2)</td>
<td>14</td>
</tr>
<tr>
<td>Electives, including two teaching minors</td>
<td>32 or 29</td>
</tr>
</tbody>
</table>

**Junior Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education 123, Elementary School Curriculum</td>
<td>2</td>
</tr>
<tr>
<td>Political Science 101, American Institutions (or substitute)</td>
<td>3</td>
</tr>
<tr>
<td>Psychology 102, Genetic</td>
<td>3</td>
</tr>
</tbody>
</table>

* Possible substitutions for the requirements in Biological Science 10A-10B.
* 1. High school Biology (year course with laboratory work).
* 3. High school Botany and Zoology 1A-1B.
* 4. High school Zoology and Botany 2A-2B.
* 5. High school Botany and high school Zoology.
* 6. Biological Science 1 and Physical Science 1—6 units.

* Depending on result of Subject A test.
* See Subject Matter Requirements in the Lower Division for total requirements in English, Natural Sciences, and Social Sciences.
* Unless minor is English, General Science or Social Science.
* If 6 units in minor taken in freshman year, none needed in sophomore year.
* Not required if student is meeting requirements for elementary credential also.

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(32)
Second Semester—
Education 116, Practice Teaching ........................................... 3

Either Semester—
Methods course in the Field of Academic Major .................................. 2
Health Education 151 ........................................................................... 2
Electives, including major and minor (for the year) ..................................... 12

First Semester—
Education 116, Practice Teaching ................................................... 3

Second Semester—
Education 121, Principles of Secondary Education ................................... 3

Either Semester—
Education, elective ............................................................................. 3
Electives, including major and minor (for the year) ..................................... 21

SUMMARY
Education 108, 116, 121, 125, Methods Courses in the Field of
Academic Major, and elective in Education ........................................... 20
English ................................................................................................. 6 or 7
Health Education 1 or 2; 151 ................................................................. 4
* Natural Sciences (including Biological Science 10A-10B and
  Geog. 1) .............................................................................................. 4
Physical Education 1A-B-C-D or 36A-36B, 38A-38B ............................... 14
Political Science 101 ............................................................................. 2
Psychology 1A or 2A, 102 ...................................................................... 6
** Social Sciences (including Social Science 1 and Geography 2) ................. 14
Electives, including teaching major and minor ........................................ 56 or 55

Combination of the Junior High School Credential with Preparation
for the General Secondary School Credential Students who wish to
prepare for graduate work in Education and the general secondary school
credential must, in addition to the courses outlined for the junior high
school credential, complete a minimum of 24 units of work in Education
including Education 107 and 130; in the teaching major field upper
division courses totaling 18-24 units approximating a liberal arts major
must be completed.

1 If 6 units in minor taken in junior year, none needed in senior year.
* See page 24.
** See page 24.

A.B. Degree With Special Credential in Art
This course leads to the A.B. degree and to the Special Secondary Credential in Art which
entitles the holder to teach art in senior high, junior high, and elementary

LOWER DIVISION
Aesthetics 50, History and Appreciation of Art (unless Aesthetics
150 is taken in the upper division) ....................................................... 2
Art 6A-6B, Structure ............................................................................ 4
Art 61A, 61B, Elementary Crafts ........................................................... 4
Education 19, Art in the Elementary School ........................................... 7
English 1, 2, 3, 4A, 4B, 52A, 52B, 56A, 56B ............................................. 6 or 7
Health Education 1 or 2 ..................................................................... 2
Natural Sciences .................................................................................. 12-24
Physical Education 1A-1B, 1C-1D (men); 36A-36B, 38A-38B
(women) ............................................................................................. 2
Psychology 1A or 2A, General .............................................................. 3
Social Sciences, including Social Science 1, Political, Social and
Economic Problems .......................................................................... 8-14
Electives, including additional art for major and courses for teaching
minor* ................................................................................................. 10-19

UPPER DIVISION
Education 116, Practice Teaching (4 units in special field) ....................... 6
Education 119, Art in the Junior High School ......................................... 2
Education 121, Principles of Secondary Education .................................. 3
Education 125, Elementary School Curriculum ..................................... 3
Education elective (suggested: Education 106 or 108 or 130) ................. 3
Political Science 101, American Institutions (or substitute) ..................... 2
Electives, including additional art and teaching minor* .......................... 41

SUMMARY
Aesthetics 50 or 150 .............................................................................. 40
Art major ............................................................................................... 19
Education .............................................................................................. 6 or 7
English ................................................................................................ 2
Health Education 1 or 2 ..................................................................... 14
* Natural Sciences ................................................................................ 2
Physical Education .............................................................................. 2
Politicai Science 101, American Institutions ......................................... 3
Psychology 1A or 2A .......................................................................... 14
** Social Sciences (including Social Science 1) ..................................... 19-20
Electives, including teaching minor ..................................................... 124

3 Depending on result of Subject A test.
2 Unless minor is English, General Science, or Social Science.
* Not required if student is meeting requirements for elementary credential
  also.
4 Maximum credit allowable in art.
* See Subject Matter Requirements in the Lower Division.
** See page 24.
### A.B. Degree With Special Credential in Business Education

This course leads to the A.B. degree and to the Special Secondary Credential in Business Education, which entitles the holder to teach business subjects in senior high and junior high schools.

In addition to the following academic requirements, satisfactory evidence of one-half year, or 1000 hours of approved experience in the field named in the credential must be submitted. For the credentials in the General Business Subfield twelve semester hours of work above the requirements for a bachelor's degree may be offered in lieu of the six months of full-time experience. At least six semester hours of the twelve must be in business or economics.

#### Accounting and Secretarial Subfields

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LOWER DIVISION</strong></td>
<td></td>
</tr>
<tr>
<td>Economics 1A-1B, Principles</td>
<td>6</td>
</tr>
<tr>
<td>Economics 2, Mathematics of Finance</td>
<td>3</td>
</tr>
<tr>
<td>Economics 14A-14B, Accounting</td>
<td>6</td>
</tr>
<tr>
<td>English 1A, Freshman English, or elective</td>
<td>1</td>
</tr>
<tr>
<td>Geography 1, Elements (Natural Science)</td>
<td>3</td>
</tr>
<tr>
<td>Geography 2, Regions</td>
<td>3</td>
</tr>
<tr>
<td>*Natural Sciences</td>
<td></td>
</tr>
<tr>
<td>Physical Education 1A-1B, 1C-1D (men), or 36A-36B, 38A-38B (women)</td>
<td>11</td>
</tr>
<tr>
<td>Psychology 1A or 2A, General</td>
<td>2</td>
</tr>
<tr>
<td>Secretarial Training A, Business Mathematics</td>
<td>1</td>
</tr>
<tr>
<td>Secretarial Training 1A-1B, Typewriting</td>
<td>6</td>
</tr>
<tr>
<td>Secretarial Training 5A-5H, Stenography</td>
<td>10</td>
</tr>
<tr>
<td>Secretarial Training 10A, English in Business</td>
<td>3</td>
</tr>
<tr>
<td>Social Science 1, Pol., Soc. and Econ. Problems</td>
<td>3</td>
</tr>
<tr>
<td>Speech Arts 1A, Fundamentals of Public Speaking</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UPPER DIVISION</strong></td>
<td>64</td>
</tr>
<tr>
<td>Economics 1A-1B, Principles</td>
<td></td>
</tr>
<tr>
<td>Economics 2, Mathematics of Finance</td>
<td></td>
</tr>
<tr>
<td>Economics, 14A-14B, Accounting</td>
<td></td>
</tr>
<tr>
<td>Economics 18A-18B, Commercial Law</td>
<td></td>
</tr>
<tr>
<td>English 1A, Freshman English, or elective</td>
<td></td>
</tr>
<tr>
<td>Geography 1, Elements (Natural Science)</td>
<td></td>
</tr>
<tr>
<td>Geography 2, Regions</td>
<td></td>
</tr>
<tr>
<td>Geography 130, Educational Psychology</td>
<td></td>
</tr>
<tr>
<td>Economics 121, Business Administration</td>
<td></td>
</tr>
<tr>
<td>Economics 130, Educational Psychology</td>
<td></td>
</tr>
<tr>
<td>Education 116, Practice Teaching</td>
<td></td>
</tr>
<tr>
<td>Education 121, Principles of Secondary Education</td>
<td>3</td>
</tr>
<tr>
<td>Education 130, Educational Psychology</td>
<td></td>
</tr>
<tr>
<td>Education 140, Statistical Methods</td>
<td></td>
</tr>
<tr>
<td>Education 160, Advanced Accounting</td>
<td></td>
</tr>
<tr>
<td>Economics 161, Cost Accounting</td>
<td></td>
</tr>
<tr>
<td>Economics 163, Machine Accounting</td>
<td></td>
</tr>
<tr>
<td>Education 164, Bookkeeping</td>
<td></td>
</tr>
<tr>
<td>Education 165, Typewriting</td>
<td></td>
</tr>
<tr>
<td>Geography 141, Economic Geography, or a course in Foreign Trade</td>
<td>3</td>
</tr>
<tr>
<td>Political Science 101, American Institutions (or substitute)</td>
<td>2</td>
</tr>
<tr>
<td>Secretarial Training 3A, Office Methods and Appliances</td>
<td>3</td>
</tr>
<tr>
<td>Secretarial Training 6A, Advanced Stenography</td>
<td>3</td>
</tr>
<tr>
<td>Electives other than Commerce and Economics</td>
<td>6</td>
</tr>
</tbody>
</table>

If the Secretarial subfield only is elected, Economics 2 and Education 164 and all upper division courses in accounting may be omitted, but 12 units in upper division courses in economics and commerce, other than those listed above, must be included.

If the accounting subfield is elected, Secretarial Training 5A-5B and Education 163, 165 may be omitted.

#### General Business Subfield

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics 1A-1B, Principles</td>
<td>6</td>
</tr>
<tr>
<td>Economics 2, Mathematics of Finance</td>
<td>3</td>
</tr>
<tr>
<td>Economics, 14A-14B, Accounting</td>
<td>6</td>
</tr>
<tr>
<td>Economics 18A-18B, Commercial Law</td>
<td>6</td>
</tr>
<tr>
<td>Secretarial Training 1A-1B, Typewriting</td>
<td>6</td>
</tr>
<tr>
<td>Secretarial Training 5A-5H, Stenography</td>
<td>3</td>
</tr>
<tr>
<td>Merchandising 26, Salesmanship</td>
<td>2</td>
</tr>
<tr>
<td>Merchandising 27, Advertising</td>
<td>2</td>
</tr>
<tr>
<td>Psychology 1A or 2A, General</td>
<td>2</td>
</tr>
<tr>
<td>Secretarial Training A, Business Mathematics</td>
<td>1</td>
</tr>
<tr>
<td>Secretarial Training 1A-1B, Typewriting</td>
<td>6</td>
</tr>
<tr>
<td>Secretarial Training 10A, English in Business</td>
<td>3</td>
</tr>
<tr>
<td>Social Science 1, Pol., Soc. and Econ. Problems</td>
<td>3</td>
</tr>
<tr>
<td>Speech Arts 1A, Fundamentals of Public Speaking</td>
<td>3</td>
</tr>
</tbody>
</table>

### Upper Division

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics 100, Modern Economic Thought, or a course in Consumer Economics or Economics 102, Contemporary Theories of Social Control</td>
<td>3</td>
</tr>
<tr>
<td>Economics 121, Business Administration</td>
<td>3</td>
</tr>
<tr>
<td>Economics 130, Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Education 116, Practice Teaching</td>
<td>6</td>
</tr>
<tr>
<td>Education 121, Principles of Secondary Education</td>
<td>3</td>
</tr>
<tr>
<td>Education 130, Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Education 140, Statistical Methods</td>
<td>3</td>
</tr>
<tr>
<td>Education 160, Advanced Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Economics 161, Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Economics 163, Machine Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Education 164, Bookkeeping</td>
<td>3</td>
</tr>
<tr>
<td>Education 165, Typewriting</td>
<td>3</td>
</tr>
<tr>
<td>Geography 141, Economic Geography, or a course in Foreign Trade</td>
<td>3</td>
</tr>
<tr>
<td>Political Science 101, American Institutions (or substitute)</td>
<td>2</td>
</tr>
<tr>
<td>Secretarial Training 3A, Office Methods and Appliances</td>
<td>3</td>
</tr>
<tr>
<td>Secretarial Training 6A, Advanced Stenography</td>
<td>3</td>
</tr>
<tr>
<td>Electives (including a minimum of 5 units in the upper division, 3 units of which must be in Commerce)</td>
<td>22</td>
</tr>
</tbody>
</table>

---

1 Depending on result of Subject A test.

* See page 24.
### LOWER DIVISION

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics 1A-1B, Principles</td>
<td>6</td>
</tr>
<tr>
<td>Economics 14A-14B, Accounting</td>
<td>6</td>
</tr>
<tr>
<td>English 1A, Freshman English, or elective</td>
<td>1</td>
</tr>
<tr>
<td>Geography 1, Elements (Natural Science)</td>
<td>3</td>
</tr>
<tr>
<td>Geography 2, Regions</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>11</td>
</tr>
<tr>
<td>Physical Education 1A-1B, 1C-1D (men), or 36A-36B, 38A-38B (women)</td>
<td>2</td>
</tr>
<tr>
<td>Secretarial Training A, Business Mathematics</td>
<td>1</td>
</tr>
<tr>
<td>Secretarial Training 2A, Typewriting</td>
<td>2</td>
</tr>
<tr>
<td>Secretarial Training 10A, Business Correspondence</td>
<td>3</td>
</tr>
<tr>
<td>Speech Arts 1A, Fundamentals of Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>Merchandising 24A, Principles</td>
<td>3</td>
</tr>
<tr>
<td>Economics 18A-18B, Commercial Law</td>
<td>3</td>
</tr>
<tr>
<td>Psychology 2A</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>8</td>
</tr>
</tbody>
</table>

**UPPER DIVISION**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics 100, 102 or 111</td>
<td>3</td>
</tr>
<tr>
<td>Economics 121, Business Administration</td>
<td>3</td>
</tr>
<tr>
<td>Economics 140, Statistical Methods</td>
<td>3</td>
</tr>
<tr>
<td>Education 116, Practice Teaching</td>
<td>3</td>
</tr>
<tr>
<td>Education 130, Educational Psychology</td>
<td>6</td>
</tr>
<tr>
<td>Education 160, Commercial Education</td>
<td>3</td>
</tr>
<tr>
<td>Education 121, Principles of Secondary Education</td>
<td>3</td>
</tr>
<tr>
<td>Education 188, Merchandising</td>
<td>2</td>
</tr>
<tr>
<td>Geography 141, Economic Geography or a course in Foreign Trade</td>
<td>3</td>
</tr>
<tr>
<td>Political Science 101, American Institutions or substitute</td>
<td>2</td>
</tr>
<tr>
<td>Merchandising 24B, Store Management</td>
<td>3</td>
</tr>
<tr>
<td>Merchandising 25, Salesmanship</td>
<td>2</td>
</tr>
<tr>
<td>Merchandising 26, Applied Salesmanship</td>
<td>3</td>
</tr>
<tr>
<td>Merchandising 27, Advertising</td>
<td>3</td>
</tr>
<tr>
<td>Elective, upper division courses in Commerce</td>
<td>9</td>
</tr>
<tr>
<td>Elective</td>
<td>11</td>
</tr>
</tbody>
</table>

### A.B. Degree With Special Credential in Music

This course leads to the A.B. degree with a Special Secondary Credential in Music which entitles the holder to teach music in senior high, junior high, and elementary schools.

**LOWER DIVISION**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics 1A-1B, Survey of Music</td>
<td>4</td>
</tr>
<tr>
<td>Education 17, History of Music</td>
<td>2</td>
</tr>
<tr>
<td>English 1A, 1B, 2, 3, 4A, 4B, 52A, 52B, 56A, 56B</td>
<td>6</td>
</tr>
<tr>
<td>Health Education 1 or 2</td>
<td>2</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>12</td>
</tr>
<tr>
<td>Physical Education 1A-1B, 1C-1D (men), 36A-36B, 38A-38B (women)</td>
<td>2</td>
</tr>
<tr>
<td>Psychology 1A or 2A, General</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences, including Social Science 1, Political, Social and Economic Problems</td>
<td>8</td>
</tr>
<tr>
<td>Music for major (see below) and electives, including course for a teaching minor</td>
<td>10</td>
</tr>
<tr>
<td>Music for major (see below) and electives, including courses for a teaching minor</td>
<td>25</td>
</tr>
</tbody>
</table>

**UPPER DIVISION**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics 102A-102B, History of Music</td>
<td>2</td>
</tr>
<tr>
<td>Education 116, Practice Teaching (at least 4 units in Music)</td>
<td>9</td>
</tr>
<tr>
<td>Education 121, Principles of Secondary Education</td>
<td>3</td>
</tr>
<tr>
<td>Education 127, Music in the Secondary School</td>
<td>2</td>
</tr>
<tr>
<td>Education 145, Org. and Adm. of Music Education</td>
<td>2</td>
</tr>
<tr>
<td>Political Science 101, American Institutions (or substitute)</td>
<td>2</td>
</tr>
<tr>
<td>Music for major (see below) and electives, including courses for a teaching minor</td>
<td>40</td>
</tr>
</tbody>
</table>

**MUSIC**

**Freshman Year:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1B, Music Reading and Ear Training</td>
<td>2</td>
</tr>
</tbody>
</table>

**Sophomore Year:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1C-1D, Music Reading and Ear Training</td>
<td>4</td>
</tr>
<tr>
<td>4A-4B, Elementary Harmony</td>
<td>6</td>
</tr>
</tbody>
</table>

**Junior and Senior Years:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>105A-105B, Advanced Harmony</td>
<td>6</td>
</tr>
<tr>
<td>106A-106B, Applied Harmony</td>
<td>6</td>
</tr>
</tbody>
</table>

**APPLIED MUSIC**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>16, 116, A, B, C, D, Orchestral Instruments (including 19 or 119, C and D, Instrumental Music, Advanced)</td>
<td>6</td>
</tr>
<tr>
<td>17, 117, A, B, C, D, Voice (including 20A, 20B, Vocal Music)</td>
<td>6</td>
</tr>
<tr>
<td>18, 118, A, B, C, D, Piano</td>
<td>4</td>
</tr>
</tbody>
</table>

1. Unless also a candidate for a General Elementary School Credential.
2. Depending on result of Subject A test.
4. See Major and Minor requirements, pages 27 and 28.
5. See page 109.
6. Unless exempted by examination.
### SUMMARY

<table>
<thead>
<tr>
<th>Subject</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics</td>
<td>6</td>
</tr>
<tr>
<td>Education</td>
<td>18</td>
</tr>
<tr>
<td>English</td>
<td>6 or 7</td>
</tr>
<tr>
<td>Health Education 1 or 2</td>
<td>2</td>
</tr>
<tr>
<td>Music major</td>
<td>2</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>40</td>
</tr>
<tr>
<td>Physical Education</td>
<td>14</td>
</tr>
<tr>
<td>Political Science 101, American Institutions</td>
<td>2</td>
</tr>
<tr>
<td>Psychology 1A or 2A</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>14</td>
</tr>
<tr>
<td>Electives, including a teaching minor</td>
<td>16 or 17</td>
</tr>
</tbody>
</table>

1. Maximum credit allowable in music for degree.

---

### A.B. Degree With Special Credential in Physical Education

This course leads to the A.B. degree and to the Special Secondary Credential in Physical Education which entitles the holder to teach physical education in senior high, junior high, and elementary schools.

#### MEN

**LOWER DIVISION**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biol. Science 10A-10B, Science of Life (unless taken as a year course in high school with at least a grade of B)</td>
<td>6</td>
</tr>
<tr>
<td>English 1A, 1B, 2, 3, 4A, 4B, 52A, 52B, 56A, 56B</td>
<td>6 or 7</td>
</tr>
<tr>
<td>Health Education 1</td>
<td>2</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>5 or 7</td>
</tr>
</tbody>
</table>

**Physical Education:**

1A-1B, 1C-1D                      | 2     |
6A, Tennis                        | 1     |
30, Emergencies                   | 1     |
62A, 62B, Gymnastic Activities    | 4     |
66, Playing Rules of Modern Games | 2     |
72, Principles                    | 3     |
Sports and Athletics              | 3     |
Psychology 1A or 2A, General      | 1     |
Red Cross Swimming Test           | 1     |
Social Sciences, including Social Science 1, Political, Social and Economic Problems | 14 |
Speech Arts 1A, Fundamentals of Public Speaking | 3 |
Zoology 20, Anatomy and Physiology | 3 |
Electives, including courses to meet minor requirements | 7-8 |

**UPPER DIVISION**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education 116, Practice Teaching</td>
<td>6</td>
</tr>
<tr>
<td>Education 121, Principles of Secondary Education</td>
<td>3</td>
</tr>
<tr>
<td>Education 125, Elementary School Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>Education, elective</td>
<td>6</td>
</tr>
<tr>
<td>Health Education 151</td>
<td>2</td>
</tr>
</tbody>
</table>

**Physical Education:**

154, Organ, and Admin. of Physical Education | 2 |
155, Applied Anatomy                | 2 |
156A-156B, Sports Methods           | 4 |
166, Technique of Officiating       | 2 |
169, Technique of Teaching Activities | 2 |
171, Community Recreation          | 2 |
180, Theory of Coaching Football    | 2 |
Sports and Athletics                | 3 |

1. Depending on result of Subject A test.
2. Men majoring in Physical Education must actively participate in three sports each year.
3. Unless minor is English, General Science, or Social Science.
4. See Subject Matter Requirements in the Lower Division.
### MEN—Continued

#### UPPER DIVISION—Continued

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political Science 101, American Institutions (or substitute)</td>
<td>2</td>
</tr>
<tr>
<td>Psychology 102, Genetic (first semester, junior year)</td>
<td>3</td>
</tr>
<tr>
<td>Zoology 114A, Genetics</td>
<td>2</td>
</tr>
<tr>
<td>Electives</td>
<td>14</td>
</tr>
</tbody>
</table>

**SUMMARY**

<table>
<thead>
<tr>
<th>Education</th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>6 or 7</td>
</tr>
<tr>
<td>Health Education</td>
<td>4</td>
</tr>
<tr>
<td>Speech Arts 1A</td>
<td>3</td>
</tr>
<tr>
<td>*Natural Sciences (including Biol., Science 10A-10B or substitute and Zoology 20)</td>
<td>14</td>
</tr>
<tr>
<td>Physical Education major</td>
<td>33</td>
</tr>
<tr>
<td>Political Science 101, American Institutions</td>
<td>2</td>
</tr>
<tr>
<td>Psychology</td>
<td>6</td>
</tr>
<tr>
<td><strong>Social Sciences (including Social Science 1)</strong></td>
<td>14</td>
</tr>
<tr>
<td>Zoology 114A</td>
<td>2</td>
</tr>
<tr>
<td>Electives, including teaching minor.</td>
<td>21-22</td>
</tr>
</tbody>
</table>

* See page 24.
** See page 24.

### WOMEN

#### LOWER DIVISION

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics 1A, Survey of Music</td>
<td>2</td>
</tr>
<tr>
<td>Biol. Science 10A-10B, Science of Life (unless taken in high school)</td>
<td>6</td>
</tr>
<tr>
<td>or Zoology 1A, General</td>
<td>4</td>
</tr>
<tr>
<td>English 1A, 1B, 2, 3, 4A, 4B, 52A, 52B, 56A, 56B</td>
<td>8 or 7</td>
</tr>
<tr>
<td>Health Education 2</td>
<td>2</td>
</tr>
<tr>
<td>*Natural Sciences</td>
<td>5-7</td>
</tr>
</tbody>
</table>

### Physical Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>36A, Fundamental Skills</td>
<td>1</td>
</tr>
<tr>
<td>36B, Folk Dancing</td>
<td>1</td>
</tr>
<tr>
<td>36C, Rhythmic Skills</td>
<td>1</td>
</tr>
<tr>
<td>37, Games and Rhythms for the Elementary School</td>
<td>1</td>
</tr>
<tr>
<td>38B, Sports and Dancing</td>
<td>1</td>
</tr>
<tr>
<td>53, Physical Education in the Elementary School</td>
<td>1</td>
</tr>
<tr>
<td>58, Social Dancing</td>
<td>1</td>
</tr>
<tr>
<td>58C Life Saving</td>
<td>1</td>
</tr>
<tr>
<td>58, Tennis</td>
<td>1</td>
</tr>
<tr>
<td>58, Golf</td>
<td>1</td>
</tr>
<tr>
<td>58, Archery</td>
<td>1</td>
</tr>
<tr>
<td>Psychology 1A or 2A, General</td>
<td>3</td>
</tr>
<tr>
<td>Sociology 50, General</td>
<td>3</td>
</tr>
<tr>
<td>Anthropology 54, Social</td>
<td>3</td>
</tr>
<tr>
<td>* Social Sciences, including Soc. Science 1, Political, Social and Economic Problems</td>
<td>5-11</td>
</tr>
<tr>
<td>Speech Arts</td>
<td>3</td>
</tr>
<tr>
<td>Zoology 20</td>
<td>114-18</td>
</tr>
<tr>
<td>Electives, including teaching minor*</td>
<td>63+</td>
</tr>
</tbody>
</table>

#### UPPER DIVISION

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education 108, Educational Measurements</td>
<td>3</td>
</tr>
<tr>
<td>Education 116, Practice Teaching</td>
<td>6</td>
</tr>
<tr>
<td>Education 121, Principles of Secondary Education</td>
<td>3</td>
</tr>
<tr>
<td>Education 125, Elementary School Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>Education 106, Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>or Education 140, Educational Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Education 142, Educational Sociology</td>
<td>3</td>
</tr>
<tr>
<td>Health Education 151</td>
<td>2</td>
</tr>
</tbody>
</table>

### Physical Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>102, Emergency and Safety Programs</td>
<td>1</td>
</tr>
<tr>
<td>153, Administration of Secondary Physical Education</td>
<td>2</td>
</tr>
<tr>
<td>155, Applied Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>157A-157B, Sports Methods</td>
<td>4</td>
</tr>
<tr>
<td>158, Stunts and Tumbling</td>
<td>4</td>
</tr>
</tbody>
</table>

1 Depending on result of Subject A test.
* Unless minor subject is English, general science, or social science.
* See Subject Matter Requirements in the Lower Division.
WOMEN—Continued

UPPER DIVISION—Continued

Physical Education—Continued

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>160 Principles of Teaching Gymnastics</td>
<td>2</td>
</tr>
<tr>
<td>161 Folk Dancing</td>
<td>2</td>
</tr>
<tr>
<td>164A-164B, Advanced Dancing</td>
<td>2</td>
</tr>
<tr>
<td>168, Physiology of Exercise</td>
<td>2</td>
</tr>
<tr>
<td>169, Technique of Teaching Activities</td>
<td>3</td>
</tr>
<tr>
<td>170, Recreational Leadership</td>
<td>2</td>
</tr>
<tr>
<td>173, Principles of Physical Education</td>
<td>2</td>
</tr>
<tr>
<td>177, Individual Program Adaptations</td>
<td>2</td>
</tr>
<tr>
<td>185, Techniques of Individual Sports</td>
<td>1</td>
</tr>
<tr>
<td>Political Science 101, American Institutions (or substitute)</td>
<td>2</td>
</tr>
<tr>
<td>Psychology 102, Genetic (first semester, junior year)</td>
<td>3</td>
</tr>
<tr>
<td>Upper Division Zoology</td>
<td>3</td>
</tr>
<tr>
<td>Additional Course in Upper Division Zoology</td>
<td>3</td>
</tr>
</tbody>
</table>

**SUMMARY**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics</td>
<td>2</td>
</tr>
<tr>
<td>Education</td>
<td>2</td>
</tr>
<tr>
<td>English</td>
<td>18</td>
</tr>
<tr>
<td>Health Education</td>
<td>6 or 7</td>
</tr>
<tr>
<td>Natural Sciences (including Biological Science 10A-10B or substitute, and Zoology 20)</td>
<td>4</td>
</tr>
<tr>
<td>Physical Education major</td>
<td>14</td>
</tr>
<tr>
<td>Political Science 101, American Institutions</td>
<td>36</td>
</tr>
<tr>
<td>Psychology</td>
<td>2</td>
</tr>
<tr>
<td><strong>Social Sciences (including Social Science 1 and Sociology 50 or Anthropology 54)</strong></td>
<td>6</td>
</tr>
<tr>
<td>Speech Arts</td>
<td>11</td>
</tr>
<tr>
<td>Zoology (upper division)</td>
<td>3-6</td>
</tr>
<tr>
<td>Electives, including a teaching minor unless Zoology is chosen</td>
<td>114-15</td>
</tr>
</tbody>
</table>

1 If another subject is chosen the program must be arranged to include a total of 6 units of upper division work in that subject.
2 See page 24.

THE BACHELOR OF EDUCATION DEGREE

General Requirements

The Bachelor of Education Degree will be granted upon the successful completion of 124 semester hours of college or university work or the equivalent. Of this total requirement at least 106 semester hours of work shall be completed in regular campus classes, extension classes, or in correspondence courses under college or university direction, and not to exceed eighteen semester hours of credit may be allowed for experiences and activities that can be evaluated as equivalent to regular academic work.

Residence Requirements

Twenty-four semester hours of work completed in the State Colleges of California will be accepted as satisfying residence requirements, provided that at least twelve units of this work has been completed at the San Diego State College subsequent to June 1, 1934, and provided that not more than six units of the remaining twelve may be taken in extension courses.

Purpose of the Degree

The establishment of this degree provides an opportunity for improving the professional training of those teachers who are now in service and who do not meet the standards of training at present required of new people entering the teaching profession.

The degree is professional in character and is not intended to qualify students for graduate standing in the universities.

The following classes of teachers are eligible for candidacy for the Bachelor of Education Degree:

1. Graduates of the 2-year, 2½-year, or 3-year curricula of the California State colleges when these institutions were normal schools or teachers colleges, who have had five or more years of teaching experience.
2. Holders of California life diplomas or those who have taught five or more years in the public schools of California.

Nature of Work and Fields of Study

Candidates will take academic courses designed to strengthen them in those fields of knowledge in which their initial training is inadequate. Professional courses in education will be included to qualify candidates to teach the newer curricula by means of the newer methods. All work will as far as possible be provided in classes for mature and experienced teachers.
Each candidate for the Bachelor of Education degree must include in the last 60 semester hours of credit earned a minimum of six semester hours in each of three of the following six fields of knowledge.

1. Professional courses
2. Social sciences
3. Natural science
4. Psychology and philosophy
5. Fine arts and literature
6. Physical education, hygiene, and recreation

Effective Dates of the Bachelor of Education Curriculum

The operation of this curriculum shall not extend beyond February 1, 1948. All applications for candidacy must be filed and at least six semester hours of work completed before February 1, 1942. All the requirements must be completed and the degree conferred prior to February 1, 1947.

Application for Candidacy

Anyone desiring to establish candidacy for this degree should secure an application blank from the Registrar's office. An evaluation of record cannot be made until the application blank has been entirely filled out and filed with complete transcripts of academic record. A two-dollar evaluation fee must accompany each application. Applications should be filed well in advance of the time of anticipated enrollment.

PREPROFESSIONAL CURRICULA

Prelegal Curricula

(Two-Year, Three-Year and Four-Year Curricula)

(a) The entrance requirements of law colleges range from two years to three and four years of prelegal work. The lower division requirements of the liberal arts curricula should be met in full whether the curriculum extends over a period of two, three, or four years.

(b) The following lower division electives meet the recommendations of standard American law colleges for a broad and liberal education in those fields of human knowledge commonly involved in human affairs and those which have cultural and disciplinary values: History 4A-4B, 6 units; Economics 1A-1B, 6 units; Economics 1A-14B, 6 units; Sociology 50, 3 units; Political Science 1A-1B or Political Science 71A-71B, 6 units; Speech Arts 1B, 3 units; English 52A-52B, 6 units; Psychology 1A, or 2A, 3 units; Psychology 4A, 2 units; Philosophy 5A-5B, 6 units. Liberal arts subjects similar to those offered in law colleges should ordinarily be omitted from the prelegal curricula.

(c) The three-year prelegal curriculum requires the completion of 93 units of work. Some of the introductory courses should be continued in the upper division if the student is to acquire mastery and confidence in any field. The following are listed as examples of upper division courses that meet the needs of general study in the three-year or the four-year curriculum. History 111A-111B, or 121A-121B, 6 units; History 151A-151B, 6 units; History 171A-171B, 6 units; Economics 102, 3 units; Economics 121 or Economics 122, 3 units; Economics 133, 3 units; Economics 135, 3 units; Economics 171, 3 units; Political Science 111, 3 units; Political Science 113, 3 units; Speech 101B or 1B, 3 units; Philosophy 120, 3 units.

(d) The four-year curriculum requires the completion of 124 units of work. A student who is pursuing a four-year prelegal curriculum must major in a specific field in his junior and senior years and must meet all upper division requirements for the A.B. Degree in the liberal arts curricula.

Presecondary Curriculum

(Four-Year Curriculum)

Completion of the requirements of this curriculum enables the graduate to satisfy the undergraduate requirements for the general secondary teaching credential, which, with graduate work, will enable the holder to teach in a senior high school or junior college.

(a) The lower division requirements of the liberal arts curricula should be met in full.

(b) The four-year curriculum requires the completion of 124 units of work. In arranging his program to meet the upper division requirements for the
A.B. Degree in the liberal arts curricula, the student should include a major in a subject or field of subjects usually taught in high school and a minor in the field of education chosen from the following courses: Ed. 121, Principles of Secondary Education; Ed. 196, Philosophy of Education; Ed. 197, History of Education; Ed. 198, Comparative Education; Ed. 193, Educational Psychology; Ed. 194, Elementary Educational Statistics; Ed. 192, Educational Sociology; Psychology 102, Genetic. In order to conform to the usual university requirements, this minor should include the courses marked with an asterisk.

Curricula Preliminary to Journalism

A broad, cultural education, and specific information and understanding in fields with which the journalist is largely concerned, are essential to an effective training for journalism.

(Two-Year and Four-Year Curricula)

(a) The two-year and four-year curricula demand the completion of the lower division requirements of the liberal arts curricula in full.

(b) The program of elective and required subjects in the lower division should include the following subjects: History 4A-4B, or 8A-8B, 6 units; Economics 1A-1B, 6 units; Political Science 1A-1B, 6 units; Psychology 1A, 3 units; Psychology 4A, 2 units; English 1B-2 or 3, 6 units; French or German, 9 units (this requirement may be satisfied in the high school); Journalism 51A-51B, 6 units; Journalism 53A-53B, 2-6 units.

(c) A student who desires to build a broad foundation for graduate work in journalism is required to complete 124 units of work. He must major in a specific field, preferably English, history or economics in his junior and senior years and must meet all upper division requirements for the A.B. Degree in the liberal arts curricula.

(d) The program of elective and required subjects in the upper division should include as many of the following subjects as possible: English 100A-100B, or 107A-107B, 4 units; English 130A-130B, 6 units; Economics 100, 3 units; History 145A-145B, or 146A-146B, 6 units; History 171A-171B, or 173A-173B, 6 units; Political Science 111, 3 units; Political Science 113, 3 units; Journalism 100, 3 units; Journalism 153A-153B, 2-6 units.

Preoptometry Curriculum

(Two-Year Curriculum)

The following subjects should be completed in high school: elementary algebra, 1 (year) unit; plane geometry, 1 unit; physics, 1 unit or algebraic theory, 4 units and trigonometry, 4 unit; chemistry, 1 unit; biology, 1 unit; German or French, 2 units; Latin, 2 units.

(a) The lower division requirements of the liberal arts curricula should be met in full.

(b) The program of elective and required subjects in the lower division should include Chemistry 1A-1B, 10 units; English 1B-2 or 3, 6 units; Mathematics 3A, or equivalent, 3 units; Physics 2A-2B, 6 units; Physics 3A-3B, 2 units; Psychology 1A, 3 units; Zoology 20, 3 units. Recommended: Mathematics 3B and 4A, Chemistry 7-8.

Prepharmacy Curriculum

(Two-Year Curriculum)

The following subjects should be completed in high school: elementary algebra, 1 (year) unit; plane geometry, 1 unit; physics, 1 unit or algebraic theory, 4 units and trigonometry, 4 unit; chemistry, 1 unit; biology, 1 unit; German or French, 2 units; Latin, 2 units.

(a) The lower division requirements of the liberal arts curricula should be met in full.

(b) The program of elective and required subjects in the lower division should include Chemistry 1A-1B, 10 units; Botany 2A-2B, 8 units; German A-B, 10 units; Mathematics D, 1 unit, or equivalent; Mathematics C, 2 units, or equivalent; Chemistry 8-9, 6 units; Chemistry 105A-105B, 6 units; Chemistry 7-8, 6 units; Physics 2A-2B, 6 units; Physics 3A-3B, 2 units.

Premedical Curriculum

The entrance requirements of medical colleges ordinarily range from three to four years of premedical work. The lower division requirements of the Liberal Arts curricula include the general requirements of standard medical colleges and should therefore be met in full whether the curriculum extends over a period of three or of four years. However, a student who has definitely decided not to become a candidate for a degree in San Diego State College may substitute the lower division requirements of the institution to which he expects to transfer in place of the following courses marked with an asterisk. All plans for premedical work should include an arrangement of courses to meet the requirements of the medical college which the student expects to enter.

A student who is pursuing a four-year premedical curriculum should major in chemistry or zoology in his junior and senior years, and must meet all upper division requirements for the A.B. Degree in the Liberal Arts curricula.

The following subjects should be completed in high school: elementary algebra, 1 (year) unit; plane geometry, 1 unit; chemistry, 1 unit; physics, 1 unit; French or German, 2 or 3 units. Two units of Latin are recommended.

Following is a recommended arrangement of courses:

<table>
<thead>
<tr>
<th>FRESHMAN YEAR</th>
<th>SOPHOMORE YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units</td>
<td>Units</td>
</tr>
<tr>
<td>Physical Education</td>
<td>3 4</td>
</tr>
<tr>
<td>Health Education</td>
<td>2</td>
</tr>
<tr>
<td>Chemistry 1A-1B</td>
<td>5 5</td>
</tr>
<tr>
<td>English 1B and 2 or 3</td>
<td>3 3</td>
</tr>
<tr>
<td>*French or German (if needed to meet requirement)</td>
<td>3-5 3-5</td>
</tr>
<tr>
<td>*Electives</td>
<td>0-2 2-5</td>
</tr>
</tbody>
</table>

* See lower division requirements, page 23.
* German if the major is Chemistry.
* Mathematics 1A-1B if the major is Chemistry.
Prenursing Curriculum
A student who plans to complete a curriculum in nursing leading to a degree and a certificate in nursing in another collegiate institution should ascertain the lower division (junior certificate) requirements of that institution. The lower division requirements of the institution to which the student will transfer may be substituted for the following courses marked with an asterisk wherever the requirements differ.

The following subjects should be completed in high school: elementary algebra, 1 (year) unit; plane geometry, 1 unit; chemistry, 1 unit; physics, 1 unit; French or German, 2 or 3 units, 2 units of Latin are recommended. The following is a recommended arrangement of courses:

- **Freshman Year**
  - Physical Education...
  - Health Education...
  - Chemistry 1A-1B...
  - Zoology 20...
  - English 2B and 2 or 3...
  - *French or German (if needed to complete requirement)*
  - *Electives*

- **Sophomore Year**
  - Physical Education...
  - Psychology 1A-1B...
  - Economics 1A-1B...
  - Bacteriology...
  - *Social Science 1*
  - *Additional Year Course*

- **Junior Year**
  - *Electives*

Preagricultural Curriculum
The following subjects should be completed in high school: elementary algebra, 1 (year) unit; plane geometry, 1 unit; algebraic theory, ½ unit; trigonometry, ½ unit; solid geometry, ½ unit; chemistry, 1 unit; physics, 1 unit; mechanical drawing, 1 unit; foreign language, 2 units.

The two-year curriculum require the completion of 66 units of work for junior standing in recognized colleges of agriculture.

Students should ascertain the lower division requirements of the agricultural college they expect to enter.

The following arrangement of courses is recommended:

- **Freshman Year**
  - Physical Education...
  - Health Education...
  - Chemistry 1A-1B...
  - Botany 2A-2B...
  - Physics 2A-2B...
  - *Electives*

- **Sophomore Year**
  - Physical Education...
  - Health Education...
  - Chemistry 1A-1B...
  - Botany 2A-2B...
  - Physics 2A-2B...
  - *Electives*

Curricula in Plant and Animal Sciences and in Forestry

- **Freshman Year**
  - Physical Education...
  - Health Education...
  - Chemistry 1A-1B...
  - Botany 2A-2B...
  - Physics 2A-2B...
  - *Electives*

- **Sophomore Year**
  - Physical Education...
  - Health Education...
  - Chemistry 1A-1B...
  - Botany 2A-2B...
  - Physics 2A-2B...
  - *Electives*

* See lower division requirements for junior standing (junior certificate), page 23.
1 Additional foreign language may be substituted for physics if necessary to satisfy lower division requirements in foreign language.
2 See prerequisites, page 67 and page 197.
3 Foreign language if not taken in high school.
SOPHOMORE YEAR

<table>
<thead>
<tr>
<th>Plant Science</th>
<th>Animal Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education</td>
<td>Physical Education</td>
</tr>
<tr>
<td>Economics 1A-1B</td>
<td>Economics 1A-1B</td>
</tr>
<tr>
<td>Chemistry 7-8</td>
<td>Chemistry 7-8</td>
</tr>
<tr>
<td>Geology 1A</td>
<td>Geology 1A</td>
</tr>
<tr>
<td>Bacteriology 7</td>
<td>Bacteriology 1 (summer session)</td>
</tr>
<tr>
<td>Zoology 1A</td>
<td>Zoology 1A-1B</td>
</tr>
<tr>
<td>Botany 7</td>
<td>Zoology 100</td>
</tr>
<tr>
<td>Electives</td>
<td>Electives</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td><strong>Total Units</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Forestry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education</td>
</tr>
<tr>
<td>Economics 1A-1B</td>
</tr>
<tr>
<td>English 1B and 2 or 3, or Speech Arts 1A-1B</td>
</tr>
<tr>
<td>Mathematics 1A-1B</td>
</tr>
<tr>
<td>Surveying 1A-1B</td>
</tr>
<tr>
<td>Botany 7</td>
</tr>
<tr>
<td>Geology 1A</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
</tr>
</tbody>
</table>

Preengineering Curricula

The following subjects should be completed in high school: elementary algebra, 1 (year) unit; plane geometry, 1 unit; algebraic theory, \( \frac{1}{2} \) unit; solid geometry, \( \frac{1}{2} \) unit; chemistry, 1 unit; physics, 1 unit; mechanical drawing, 1 unit.

Students should ascertain the requirements of the engineering college they expect to enter.

The following arrangement of courses is recommended:

Mechanical, Electrical, Civil and Mining Engineering

<table>
<thead>
<tr>
<th>Freshman Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education</td>
</tr>
<tr>
<td>Health Education</td>
</tr>
<tr>
<td>Mathematics 3A-3B</td>
</tr>
<tr>
<td>Chemistry 1A-1B</td>
</tr>
<tr>
<td>Physics 1A-1B</td>
</tr>
<tr>
<td>*Geology 1A or elective</td>
</tr>
<tr>
<td>Electives</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
</tr>
</tbody>
</table>

*Geology 1A is required in the civil engineering curriculum.

Mechanical and Electrical Engineering

<table>
<thead>
<tr>
<th>Sophomore Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering 1A</td>
</tr>
<tr>
<td>Engineering 21</td>
</tr>
<tr>
<td>Engineering 22</td>
</tr>
<tr>
<td>Engineering 23</td>
</tr>
<tr>
<td>Mathematics 3A-3B</td>
</tr>
<tr>
<td>Mathematics 119</td>
</tr>
<tr>
<td>Physical Education</td>
</tr>
<tr>
<td>Physics 1C-1D</td>
</tr>
<tr>
<td>Electives</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
</tr>
</tbody>
</table>

Civil Engineering

<table>
<thead>
<tr>
<th>Sophomore Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astronomy 3</td>
</tr>
<tr>
<td>Engineering 1A-1B</td>
</tr>
<tr>
<td>Engineering 21</td>
</tr>
<tr>
<td>Engineering 22</td>
</tr>
<tr>
<td>Engineering 23</td>
</tr>
<tr>
<td>Mathematics 119</td>
</tr>
<tr>
<td>Physical Education</td>
</tr>
<tr>
<td>Physics 1C-1D</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
</tr>
</tbody>
</table>

Curriculum Preliminary to Social Service

The preprofessional curriculum in social service prepares for admission to graduate work in recognized American schools of social work. This curriculum should be pursued by those who plan careers in federal, state and local social work; public and private social work; social work in public schools; family and children's private case work agencies; social settlement work; county probation work; child welfare agencies; statistical and investigative work in private and public agencies; work in public institutions for the delinquent; medical social service and psychiatric social work; and work in hospitals and clinics; executive positions in social work; and social work in numerous other organizations.

The lower division requirements of the Liberal Arts curricula include the general requirements of recognized professional schools of social work and should therefore ordinarily be met in full. However, a student who has definitely decided not to become a candidate for a degree in San Diego State College may substitute the lower division requirements of the institution to which he expects to transfer wherever the requirements differ.

A student who pursues a four-year curriculum in San Diego State College should major in Economics and closely related fields and minor in Psychology and in a second field of his own choice.

The following subjects should be completed in high school: elementary algebra, 1 (year) unit; plane geometry, 1 unit; algebraic theory, \( \frac{1}{2} \) unit; trigonometry, 1 unit; chemistry, 1 unit; physics, 1 unit; foreign language, 3 units in one language or 2 units in each of two languages.
Following is a recommended arrangement of courses:

<table>
<thead>
<tr>
<th>FRESHMAN YEAR</th>
<th>UNITS</th>
<th>SOPHOMORE YEAR</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education</td>
<td>1</td>
<td>Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>Health Education 1 or 2</td>
<td>4</td>
<td>Anthropology 54</td>
<td>3</td>
</tr>
<tr>
<td>Biological Science 10A-10B</td>
<td>3</td>
<td>Economics 1A-1B</td>
<td>3</td>
</tr>
<tr>
<td>Political Science 1A-1B</td>
<td>3</td>
<td>Psych. 1A, 1B</td>
<td>3</td>
</tr>
<tr>
<td>*Foreign Language (if needed to complete requirement)</td>
<td>3-5</td>
<td>*Additional Year Course</td>
<td>3</td>
</tr>
<tr>
<td>*Speech Arts 1A-1B or English elective</td>
<td>3</td>
<td>*Additional Natural Science (if needed to meet requirement)</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>0-2</td>
<td>Electives</td>
<td>3-4</td>
</tr>
<tr>
<td>**</td>
<td>16-16</td>
<td>**</td>
<td>15-16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>JUNIOR YEAR</th>
<th>UNITS</th>
<th>SENIOR YEAR</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics 140</td>
<td>3</td>
<td>Economics 102</td>
<td>3</td>
</tr>
<tr>
<td>Social Economics 100</td>
<td>3</td>
<td>Economics 122</td>
<td>3</td>
</tr>
<tr>
<td>Social Economics 101</td>
<td>3</td>
<td>Economics 199</td>
<td>2</td>
</tr>
<tr>
<td>Social Economics E109</td>
<td>3</td>
<td>Social Economics 102</td>
<td>3</td>
</tr>
<tr>
<td>(Field of Social Work, Extension Division)</td>
<td>2</td>
<td>Social Economics E111</td>
<td>3</td>
</tr>
<tr>
<td>Social Economics E110</td>
<td>2</td>
<td>(Social Legislation, Extension Division)</td>
<td>2</td>
</tr>
<tr>
<td>(Social Aspects of Industry, Extension Division)</td>
<td>2</td>
<td>Social Economics E112</td>
<td>3</td>
</tr>
<tr>
<td>Psychology 118</td>
<td>3</td>
<td>(Social Case Work, Extension Division)</td>
<td>2</td>
</tr>
<tr>
<td>Psychology 150</td>
<td>3</td>
<td>Political Science 152</td>
<td>3</td>
</tr>
<tr>
<td>Zoology 114A</td>
<td>2</td>
<td>Social Economics 104</td>
<td>2</td>
</tr>
<tr>
<td>Electivesa</td>
<td>5</td>
<td>Electivesa</td>
<td>4-3</td>
</tr>
<tr>
<td>**</td>
<td>15</td>
<td>**</td>
<td>15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SENIOR YEAR</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics</td>
<td>6</td>
</tr>
<tr>
<td>Engineering 128</td>
<td>3</td>
</tr>
<tr>
<td>Economics 1A-1B</td>
<td>3</td>
</tr>
<tr>
<td>Economics 1A-1B</td>
<td>3</td>
</tr>
<tr>
<td>Psychology 2A</td>
<td>3</td>
</tr>
<tr>
<td>Political Science 101</td>
<td>2</td>
</tr>
<tr>
<td>Electives</td>
<td>1-3</td>
</tr>
<tr>
<td>**</td>
<td>15</td>
</tr>
</tbody>
</table>

*See lower division requirements, page 23.

Curriculum in Industrial Physics

The following subjects should be completed in high school: elementary algebra, 1 (year) unit; plane geometry, 1 unit; algebraic theory, 1 unit; solid geometry, 1 unit; trigonometry, 1 unit; chemistry, 1 unit; physics, 1 unit; mechanical drawing, 1 unit; French or German, 3 units.

<table>
<thead>
<tr>
<th>FRESHMAN YEAR</th>
<th>UNITS</th>
<th>SOPHOMORE YEAR</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education</td>
<td>3</td>
<td>Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>Health Education 1</td>
<td>3</td>
<td>Mathematics 4A-4B</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics 3A-3B</td>
<td>3</td>
<td>Physics 1C-1D</td>
<td>3</td>
</tr>
<tr>
<td>Chemistry 1A-1B</td>
<td>5</td>
<td>Any combination of: Engineering 1A, 1B, 21, 22</td>
<td>3</td>
</tr>
<tr>
<td>Physics 1A-1B</td>
<td>3</td>
<td>Engineering 23</td>
<td>2</td>
</tr>
<tr>
<td>Electives</td>
<td>2</td>
<td>*Foreign Language</td>
<td>3-4-3-5</td>
</tr>
<tr>
<td>**</td>
<td>16-16</td>
<td>**</td>
<td>15-2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>JUNIOR YEAR</th>
<th>UNITS</th>
<th>SENIOR YEAR</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics</td>
<td>6</td>
<td>Chemistry 110A-110B</td>
<td>3</td>
</tr>
<tr>
<td>Engineering 128</td>
<td>3</td>
<td>Upper division requirements</td>
<td></td>
</tr>
<tr>
<td>Engineering 128</td>
<td>3</td>
<td>and electives for the major and the degree</td>
<td></td>
</tr>
<tr>
<td>Economics 1A-1B</td>
<td>3</td>
<td>(see pages 25, 67)</td>
<td>12</td>
</tr>
<tr>
<td>Electives</td>
<td>1</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>**</td>
<td>15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Lower division requirements must be met in full. See page 23. Students who, during the first two years, choose the regular engineering curriculum will find that certain lower division requirements will have to be deferred until the junior year. All lower division requirements must be completed before senior standing is granted. Engineering and chemistry should be used to satisfy requirements for the minors.
COURSES OF INSTRUCTION

Figures in parentheses indicate the unit value of the course.
Courses numbered from 1 to 99 are lower division (freshman or sophomore courses); those numbered 100 and above are upper division (junior or senior) courses.

Freshmen are not admitted into upper division courses.
A sophomore may enroll in an upper division course for lower division credit provided he has earned an average grade of not less than 1.5 grade points in all college work undertaken, and provided he receives the instructor's permission to enroll in the course. A second semester sophomore may enroll in an upper division course for upper division credit without the foregoing grade limitations provided the units earned in the upper division course or courses are in excess of the sixty-four units required in the lower division.

One "unit" represents an hour recitation or lecture, together with the required preparation, or three hours laboratory work each week for a semester of 16 weeks.
The semester in which courses are offered is designated as follows: (1) Fall; (2) Spring; (3) Fall and Spring; (4) Year course, beginning either Fall or Spring; (5) Year course. Courses designated as "Year course" begin in the Fall, but those given in the list below may be taken in the reverse order (i.e., the second semester of the course may be taken before the first semester) or the second semester may be taken alone. In the case of other year courses, students who have completed the equivalent of the first semester's work may seek permission from the instructor to take the second half of the course. Single semester courses having the letter B as a part of the number (as for example, Art 61B) are not supposed to follow another course of the same number unless so indicated in the prerequisites to the course.

Year Courses Open to Registration in the Middle of the Year

Aesthetics 1A-1B
Aesthetics 102A-102B
Anthropology 50A-50B
Anthropology 151A-151B
Economics 160A-160B
English 4A-4B
English 52A-52B
English 96A-96B
English 106A-106B
English 107A-107B
French 101A-101B
French 105A-105B
French 107A-107B
French 110A-110B
French 111A-111B
History 4A-4B
History 8A-8B
History 111A-111B
History 121A-121B
History 145A-145B
History 146A-146B
History 151A-151B
History 156A-156B
History 171A-171B
History 173A-173B
Merchandising 24A, 24B

Although the College fully expects to carry out the arrangements planned in the list of courses, it reserves the right to make changes. Classes in which the enrollment does not come up to the minimum number set by the State Department of Education may not be offered or may be postponed.

AESTHETICS

LOWER DIVISION COURSES

1A-1B Survey of Music

Correlation of music and other arts. Designed to stimulate enjoyment of music by developing intelligent listening. The elements of music, its structure, folk music of all countries, musical instruments, and the contributions of the best known composers, with some biographical study of these men. Compositions are presented by orthophonic recording and by class members. Attendance at a number of local concerts is required. No previous musical training or background is necessary. Music majors are required to complete additional assignments for full credit.

Year course (2-2)

5 Fundamentals of Art

Jackson

An illustrated lecture course involving a study of aesthetic meaning and its relation to the structure of art products. Designed to increase both understanding and appreciation of the visual world in general and of the fine arts in particular.

Fall and Spring (2)

50 Appreciation and History of Art

Jackson

A survey of aesthetic development as revealed in the painting, sculpture, architecture, and handicrafts from dawn of art to the Renaissance. Illustrated.

Fall (3)

UPPER DIVISION COURSES

102A-102B History of Music

Springston

The various movements in the development of music as related to other arts. The chronological development of the art of music, with particular emphasis on the larger works. Considerable attention is given to the study of modern composers. Many symphonic works are studied from the standpoint of the larger works. Music majors are required to complete additional assignments for full credit. Prerequisite: Aesthetics 1A-1B. Previous study of harmony and instrumentation is desirable.

Year course (1-1)

50 Appreciation and History of Art

Jackson

The period from the Renaissance through the modern school, treated in the same manner as in Aesthetics 50.

Spring (2)
ANTHROPOLGY
LOWER DIVISION COURSES

50A-50B Man's Evolutionary History
Rogers
Year course (3-3)

54 Social Anthropology
Rogers
An anthropological study of social institutions in primitive and civilized societies. The evolution of family organization, religion, property rights, and government traced in elementary and advanced civilization. Ritualism and education considered as processes of culture conservation and social control.
Fall and Spring (3)

55 Culture History
Rogers
The prehistoric and historic development of culture types contributing to Western European and American civilization of today. Egyptian, Semitic, Indo-European, and Oriental cultures examined in light of their bearing on contemporary civilization. Methods of culture spread examined and applied to specific traits. Spengler's theory of history and similar doctrines reviewed.
Spring (3)

UPPER DIVISION COURSES

151A The American Indian: North America
Rogers
Pre-Columbian cultures of the North American Indian. The origin and migration of New World peoples. Industries, arts, crafts, social organization, religion and other phases of American Indian civilization.
Fall (3) (Offered in 1938-39 and alternate years)

151B The American Indian: Middle America
Rogers
The development of civilization in Pre-Columbian Mexico and Central America: Aztec, Mayan, and related cultures.
Spring (3) (Offered in 1938-39 and alternate years)

152 Primitive Cultures (Ethnology)
Rogers
History and cultural development of primitive races of mankind. Consideration given to industries, arts, social organization, and religion of living primitive peoples.
Fall (3) (Offered in 1939-40 and alternate years)

153 Primitive Religion
Rogers
Spring (3) (Offered in 1939-40 and alternate years)

ART

Candidates for a teaching credential in art should refer to the statement "Admission to Teacher Training" on page 26.

Lower division preparation for the liberal arts major in art and for the junior certificate: Aesthetics 5, 50; fourteen units carefully chosen from lower division art courses to meet the stated prerequisites for upper division work. These shall include Art A-B, 6A-6B, or the accepted equivalents, and six elective units in art.

Liberal arts major (upper division): Twenty-four upper division units. These shall include Art 112A, 115A-115B, 152A, 185, and twelve upper division elective units in art, and Aesthetics 150.

It is recommended that the students in meeting degree requirements and in choosing free electives, select from the following courses: Anthropology 151A-151B; English 4A-4B, 106A-106B, 107A-107B, 117; French A-B; History 4A-4B, 111A-111B.

For courses in Appreciation and History of Art and Fundamentals of Art, see Aesthetics, page 57.

LOWER DIVISION COURSES

Art Appreciation

8 Appreciation of Costume and Home Furnishing
Borsum
Lectures, discussions, and demonstrations on the underlying principles of dress and home furnishing. (a) A study of the design, color, texture, fabric, and fashion in modern dress with emphasis on suitability to the figure, the personality, and the occasion. (b) Line form, color, texture, fabric, and lighting in relation to the home; the selection and arrangement of furniture, rugs, fabrics, pictures, etc., for all rooms of the home.
Fall (2)

8A Structure
Borsum
Fundamentals of design and composition and theory of color. Basic course used as a prerequisite for all advanced art work.
Fall and Spring (2)

8B Structure (continued)
Borsum
Original work in creative design with special stress on modern tendencies. Prerequisite: Art 6A.
Fall and Spring (2)

7 Line, Color and Display
Patterson
The principles of line, color and arrangement applied to store and window display. Study and observation of windows, color and materials used in display. Building models and practical problems in arranging colors, textures and forms in windows, to fit different kinds of merchandise.
Fall and Spring (3)

11A Industrial Design
Hamann
Original design in its relationship to various fields—ceramics, furniture,
11A Advanced Industrial Design

Advanced problems with emphasis upon the related factors of material and production. Application of problems designed. Prerequisites: Art 6A-6B, 11A.

Fall (2)

14A Lettering

Fundamental art principles applied to lettering. Practice for quick, accurate lettering; original problems using letters as design. Prerequisite: Art 6A.

Fall (2)

14B Posters and Commercial Art

The application of lettering to posters, newspaper and magazine advertising, and other forms of commercial art. The study of composition combined with lettering and special study of modern tendencies in publicity. Prerequisites: Art 6A, 14A.

Spring (2)

52A Stage Design

Theory of line, color, and lighting in relation to the stage. Original sets and costumes developed on a miniature stage. Study of the development of the modern art of the theater. Upper division credit will be given in this course to students of junior standing upon the completion of extra theme work and additional original problems. Prerequisite: Art 6A.

Fall (2)

94 Costume Design

Original designs of modern costumes suitable to the individual or to distinct types; the drawing of fashion figures; the rendering of fabrics and textures. Prerequisites: Art 6A.

Spring (2)

A-B Freehand Drawing

Semester I: Problems involving perspective to develop ability to draw still life, furniture, interiors, and the like. Semester II: Outdoor sketching of landscape and figure, and studio work from still life and costume pose. Emphasis on composition and technique in the handling of various mediums, pencil, pen and ink, charcoal.

Year course (2-2)

15A-15B Life Drawing

Drawing from the nude model. Does not duplicate the former course in painting, numbered Art 15A-15B.

Year course, beginning either Fall or Spring (2-2)
A laboratory course designed particularly to go along with and to supplement Astronomy 1. The course will include constellation study, use of astronomical coordinates, elementary methods of determining time and latitude, and descriptive observations of celestial objects with the six-inch telescope. Prerequisite: Astronomy 1 or registration in Astronomy 1 or permission of instructor.

Fall and Spring (1)

11 Modern Astronomy C. E. Smith
A study of sidereal astronomy and astrophysics in the light of modern research, especially photographic and spectrographic. Prerequisite: Astronomy 1 and a knowledge of physics or permission of instructor.

Fall and Spring (1 or 2)

BIOLICAL SCIENCES

(General Biological Science, Botany, Zoology)

Lower division preparation in botany for advanced work and for the junior certificate: Botany 2A, 2B, 4, 7, and Chemistry 1A.

Lower division preparation for the liberal arts major in zoology and for the junior certificate: Zoology 1A, 1B, and high school chemistry or Chemistry 1A-1B. Recommended: German, French, Botany 2A, 2B, 4, 7.

Liberal arts major in zoology: (1) At least a C average in upper division major courses. (2) Twenty-four units of upper division courses in zoology or eighteen in the major subject and six in related courses in Botany, organic chemistry, physics, physiology, and bacteriology.

Students preparing to teach science in the junior high school should try to include courses in zoology, botany, bacteriology, physics, chemistry (at least high school chemistry), and Education 120. The following are also desirable: geography, geology, anthropology, astronomy, and upper division biological sciences.

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

LOWER DIVISION COURSES

1 Man and His Biological World Johnson
A general biology course with lectures, discussion, and demonstrations three hours a week. For students who are not required to take Biological Sciences 10A-10B and who prefer a shorter course with no required laboratory work. A demonstration laboratory is usually offered one day a week for those who care to attend; attendance at laboratory is optional. Not open to students who have taken 10A-10B or any combination of Botany 1A-1B, or any combination of Botany 2A-2B or high school zoology. Students who have credit for this course and later elect Botany 1A-1B receive 4 units of credit for 10A-10B instead of 6.

Fall and Spring (3)
10A-10B Science of Life

Lectures: Johnson
Laboratory: Crouch, Harvey

The fundamentals of plant and animal biology, with elementary work in human physiology and heredity. Laboratory work supplements the lectures and includes a study of living and preserved material. Aim of the course to acquaint the student with the basic facts of biology. Designed not only to give the general student an acquaintance with living things and their relationships, but also to furnish the prospective teacher with an adequate background for nature study teaching. Two lectures and one three-hour laboratory period per week. Designed for those who do not expect to specialize in zoology or botany; not open for credit to students who have taken Zoology 1A, or Botany 2A. Students who have taken 10A-10B may elect Zoology 1B or Botany 2A, 2B for credit.

Year Course (3-3)

199 Special Study

Reading or work other than is outlined in the regular courses. (Bacteriology 1, General, and 102, Advanced Bacteriology, or 103, Current Problems in Hygiene and Bacteriology, are usually offered in the summer session). Admission only by consent of the instructor with whom the work is to be done and the chairman of the Biological Science department. Credit and hours to be arranged in each case. Open to students who have completed at least 6 units of bacteriology with grades of A or B.

BACTERIOLOGY

2A General

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

Fall (4)

2B General

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

Spring (4)

4 California Plants

Classification and ecology of representative orders of wild flowers, trees, and chaparral of the San Diego region, including practice in the use of Saturday field trips.

Spring (2)

7 Plant Physiology

The activities of plants, including food manufacture, absorption, conduction, transpiration, respiration, growth, and movement. Two lectures and six hours of laboratory per week. Prerequisite: Biol. Science 10A-10B or Botany 2A.

Fall (4) (Offered in 1938-39 and alternate years.)

UPPER DIVISION COURSES

102 Plant Geography

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

Fall (2) (Offered in 1938-39 and alternate years.)

104 Taxonomy

Harvey

Identification, classification and distribution of representative orders of flowering plants. Six hours per week of lectures, laboratory, and field work. Prerequisite: Botany 2A-2B, 4.

Spring (5) (Offered in 1938-39 and alternate years.)

199 Special Study

Instructors of the Department

(Johnson in charge)

Reading or work other than is outlined in the above courses. Admission by consent of the instructor with whom the work is to be done and the head of the department. Credit and hours to be arranged in each case. Open to students who have completed at least ten units of lower division work in the department with a grade of A or B.

Fall and Spring (1 or 2)

ZOOLOGY

1A General

Harwood and Hoard

An introduction to animal biology dealing with structure, functions, and evolution of animal life. Laboratory work supplementing the lectures and based on the study and observation of living and preserved material (insects and invertebrates). Valuable to the general student as well as to the biology specialist, acquainting one with the fundamental facts and theories of biology as they pertain to animal life. Two lectures or recitations and two three-hour laboratory periods per week.

Fall (4)

1B General

Harwood and Hoard

A continuation of 1A. The structure, relationships, and classification of the chordates. Two lectures and two three-hour laboratory periods per week. Prerequisite: Zoology 1A or Biological Science 10B.

Spring (4)

20 Anatomy and Physiology

Crouch

An elementary course in human anatomy and physiology. Prerequisite: High school biology, or Biol. Science 10A-10B or Zoology 1A-1B. Lectures three hours per week.

Fall or Spring (3)

UPPER DIVISION COURSES

100 Embryology

Johnson

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

Spring or Fall (3)

105 Comparative Anatomy of the Vertebrates

Crouch

Dissection, study and comparison of organ systems of typical verte-
brates. Two hours per week of lecture and six hours of laboratory. Prerequisite: Zoology 1B or Biol. Science 10B.

Fall (4)

112 Marine Zoology

Designed to acquaint the student with the many interesting animals found along the beaches in the San Diego region. Identification, distribution, associations, structure, and to some extent, behavior and life histories of the organisms. Frequent collecting trips to the beach and study of the living animals in the laboratory. Prerequisite: A laboratory course in elementary biology or zoology.

Fall (3) (Offered in 1939-40 and alternate years)

113A Taxonomy and Natural History of the Mammals

Crouch

Frequent field trips and the identification of preserved material. Three hours of laboratory per week.

Spring (1)

113B Ornithology

Crouch

The study and identification of birds, especially those of the Pacific coast and the San Diego region. One hour of lecture and six hours per week of laboratory, or field excursions. Prerequisite: Zoology 1B, or Biol. Science 10B.

Spring (3) (Offered in 1938-39 and alternate years)

113C Field Study of Birds

Crouch

The study and identification of the birds of the San Diego region. Three hours of laboratory or field work per week.

Spring (1) (Offered in 1939-40 and alternate years)

113D Natural History of Fishes

Crouch

Lectures, laboratory, and field work to acquaint the student with the groups of fishes, their habits and economic importance.

Spring (1) (Offered in 1939-40 and alternate years)

114A Genetics

Harwood

General introductory course designed to acquaint the student with the fundamental principals of heredity and variation. Special attention given to the Mendelian interpretations of the facts of inheritance. Two lectures per week.

Fall (2)

114B Evolution

Johnson

The development of theories of evolution. Two lectures or discussion periods per week.

Spring (2) (Offered in 1938-39 and alternate years)

121 Entomology

Harwood

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

Spring (4) (Offered in 1938-39 and alternate years)

130 Readings in Biology

Harwood

Readings from a suggested bibliography with informal class discussion of topics. Subjects discussed will include history of biology, biological principals, ecology, economic zoology, zoogeography, breeding habits, animal behavior.

Spring (2) (Offered in 1939-40 and alternate years)

199 Special Study

Instructors of the Department

(Johnson in charge)

Reading or work other than is outlined in the above courses. Admission only by consent of the instructor with whom the work is to be done and the head of the department. Credit and hours to be arranged in each case. Open to students who have completed at least ten units of work in the department with a grade of A or B.

Fall and Spring (1 or 2)

CHEMISTRY

Lower division preparation for the liberal arts major in chemistry and for the junior certificate: Chemistry 1A-1B with an average grade of C or better, Chemistry 7-8, Physics 2A-2B and 3A-3B or their equivalent, Mathematics 3A-3B or the equivalent, and a reading knowledge of German. Students planning to do graduate work in chemistry or to transfer to another college, and there work for a degree with a major in chemistry, are advised to take Physics 1A-1B-1C-1D and Mathematics 3A-3B-4A-4B in place of the courses listed above.

Liberal arts major (upper division): A minimum of twenty-four upper division units in chemistry including Chemistry 165A-165B, 110A-110B and 111A-111B. The choice of a related minor and the organization of the course of the major student must follow a definite plan approved by the department.

For requirements for liberal arts major in physical science, see page 107.

LOWER DIVISION COURSSES

1A-1B General Chemistry

Messner, Robinson

The general principles and laws of chemistry, and a description of the elements and their compounds. Two lectures, one quiz and two laboratory periods per week. The laboratory work in the second semester consists of work in qualitative analysis. Prerequisites: At least two years of high school mathematics. Recommended: High school chemistry and physics.

Year course (5-5)

7-8 Organic Chemistry

Robinson

A general consideration of the carbon compounds (both aliphatic and aromatic) and their derivatives; their synthesis, constitution and preparatory work, and the principles involved. Two lectures and one laboratory period per week first semester; one lecture and two laboratory periods per week second semester. Prerequisite: Chemistry 1A-1B.

Year course (3-3)

UPPER DIVISION COURSES

105A Quantitative Analysis

Messner

The principles of gravimetric and volumetric analysis. Discussions of the theory of quantitative analysis and practice in the standardization of the procedures.
reagents and analysis of samples. One lecture and two laboratory periods per week. Prerequisite: Chemistry 1A-1B.

Fall (3)

105B Advanced Quantitative Analysis Messner
Advanced work in the theory and practice of volumetric, gravimetric and electro-analysis. One lecture and two laboratory periods per week. Prerequisite: Chemistry 105.

Spring (3)

110A-110B Physical Chemistry Messner
Lectures and problems on theoretical principles of chemistry. Prerequisites: Physics 1A-1B or 2A-2B and Chemistry 105 which may be taken concurrently. With the approval of the instructor, advanced courses in physics may be substituted for Chemistry 105.

Year course (3-3)

111A-111B Physical Chemistry—Laboratory Robinson
Physico-chemical problems and measurements. Two laboratory periods per week. Prerequisites: Credit or registration in Chemistry 110A-110B, Physics 1A-1B or 2A-2B, and calculus. With the consent of the instructor, advanced courses in physics may be substituted for Chemistry 105 which may be taken concurrently.

Year course (2-2)

112 Industrial Analysis Robinson
A laboratory course including the analysis of fuels, petroleum products, water, and gas. Prerequisite: Chemistry 105 which may be taken concurrently.

Spring (2) (Offered in 1939-40 and alternate years)

114 Biochemistry Messner
An introductory lecture course covering the carbohydrates, proteins, fats and the changes which they undergo in digestion and metabolism as well as a consideration of the vitamins and other accessory food factors and their importance to the body. A brief discussion of the chemistry of plant life. Prerequisites: Credit or registration in Chemistry 110A-110B.

Fall (3) (Offered in 1938-39 and alternate years)

118 Colloid Chemistry Messner
A lecture course covering the theoretical principles of colloid chemistry and the preparation, properties and practical applications of colloids. Prerequisite: Chemistry 110A-110B.

Fall (2) (Offered in 1939-40 and alternate years)

123-124 Organic Preparations Robinson
A laboratory course illustrating some of the more important synthetic methods of organic chemistry. Laboratory and conferences. Prerequisite: Chemistry 1-8. A reading knowledge of German recommended. Year course, beginning either Fall or Spring (1 to 5-1 to 3)

125 History of Chemistry Robinson
Development of the science of chemistry from the time of the alchemists to the present. Conducted on the reading, report, and seminar basis. Prerequisite: Chemistry 110A-110B.

Fall (2) (Offered in 1938-39 and alternate years)

144 Industrial Chemistry Robinson
Industrial stoichiometry, flow sheets, flow of fluids and unit processes. Lectures, problems, and reports. Prerequisites: Chemistry 1A-1B, Physics 1A-1B or 2A-2B, and calculus.

Spring (3) (Offered in 1939-40 and in alternate years)

199 Special Topics Robinson
Supervised individual work in specialized branches of chemistry such as colloid chemistry, biochemistry, applications of the phase rule, etc. Admission only by the consent of the instructor. Hours and credit to be arranged in each case. Only open to upper division students who have shown their ability to do A or B work in chemistry.

Fall and Spring (1-3)

ECONOMICS

The department provides an opportunity for the student to choose between a major in economics and a major in commerce in satisfying the requirements for the Bachelor of Arts degree.

Economics Lower division preparation for the liberal arts major in economics and for the junior certificate: Economics 1A-1B and at least one of the following: Political Science 1A-1B; History 1A-1B, 8A-8B; Psychology 1A and 1B or 4A or 4B; Geography 1 and 2; Anthropology 30A-50B. Recommended: Sociology 50; Economics 14A-14B, 18A-18B.

Liberal arts major in economics, 24 upper division units required as follows: Economics 100, 102 or 111, 148 and 199, with 6 units selected from Economics 102 or 111, 123, 131, 133, 135, 171 and 8150 (Labor Problems, Summer Session). Electives: Seven upper division units in economics. Economic geography may be substituted for three elective units in economics.

Commerce Candidates for a teaching credential in business education should refer to the statement “Admission to Teacher Training Curricula” on page 26 and to the curriculum for the A.B. degree with a special credential in Business Education on pages 36, 47 and 38.

Lower division preparation for the liberal arts major in commerce and for the junior certificate: Economics 1A-1B, 14A-14B (6 units), 18A-18B; English 1B, 2 or 3; Geography 1-2; Mathematics D and G, or 2; Introduction to Political Science 1A-1B.

Liberal arts major in commerce, 24 upper division units required. Economics 111, 121, 140, 199 required with 13 units additional chosen in one of the following groups:

A. Accounting: Economics 169A-169B, 161, 163 and 1 or more units in electives in economics.

B. Banking and Finance: Economics 133, 134, 135, and 4 units in electives in economics.
LOWER DIVISION COURSES

1A-1B Principles of Economics  Cameron
The basic principles of economics: utility, wealth, value, price; economic production, distribution, and consumption; rent, interest, wages, and profit; competition, monopoly, and large scale production; property, economic waste, and luxury; money and banking, international trade and tariffs; transportation corporations, labor problems, socialism, taxation, etc. Aims of the course: (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 future citizens to political and economic problems of our time. Lectures, discussions, quizzes, and collateral reading. Not open to entering freshmen except by special arrangement.
Year course (3-3)

2 Mathematics of Finance  Wright
Interest and annuities; amortization; sinking funds; valuation of bonds; depreciation; mathematics of building and loan associations; mathematics of life insurance. Prerequisites: Two years of algebra in high school, or equivalents.
Spring (3)

14A-14B Accounting  Wright
A knowledge of bookkeeping not required and not advantageous. The balance sheet; profit and loss statement; various types of books of original entry; the opening, conducting, and closing of books for different kinds of businesses; organizations, reorganizations, dissolutions, and consolidations, etc., keeping in view the best modern accounting practice.
Year course (3 or 4-3 or 4)

18A-18B Commercial Law  Wurfel
The leading and fundamental principles of business law. Simple cases showing the actual application of the principles to commercial and business transactions, rather than the development of those principles. The property, negotiable instruments, insurance, and wills, with a brief study of evidence.
Year course (3-3)

UPPER DIVISION COURSES

100 Modern Economic Thought  A. G. Peterson
Classical doctrine in the light of recent economic theory. A critical analysis of contemporary economic thought. Prerequisite: Economics 1A-1B.
Spring (3) (Offered in 1938-39 and alternate years)

102 Contemporary Theories of Social Control  A. G. Peterson
A study of principles, plans and movements for social and economic control including consideration of anarchism, individualism and liberalism, collectivism, socialism, communism, fascism, and the New Deal.
Spring (3) (Offered in 1939-40 and alternate years)

111 Economic History of the United States  Wright
A comprehensive survey of American economic development and of national legislation in the field of industry.
Fall (3)

121 Business Administration  A. G. Peterson
Problems of business administration as an interrelated whole and as an indication of lines of study which may lead to the solution of those problems. A discussion of the problems of the business administrator with particular reference to the character of the problems involved and to the control policies and devices of the manager. Questions, problems, and case studies. Prerequisite: Economics 1A-1B.
Fall (3)

122A Public Business Administration  A. G. Peterson
A general survey of the field of public administration with particular attention to the organization of the administrative service and the principles, practice and problems of personnel and finance administration.
Fall (3) (Offered in 1939-40 and alternate years)

122B Field Studies in Public Business Administration  A. G. Peterson
Open only to qualified students with the consent of the supervisor.
Fall (1-2) (Offered in 1939-40 and alternate years)

123 Marketing  Cameron
Our distributive organization and its functions, including the marketing of both agricultural and manufactured products. Prerequisite: Economics 1A-1B.
Spring (3) (Not offered in 1938-39)

128 Real Estate  Cameron
Real estate in all its aspects: property rights, transfer of title, valuation, finance, selling, property management, taxation, insurance, city planning, and the like, with special emphasis upon problems as they exist in San Diego.
Spring (3) (Offered in 1939-40 and alternate years)

131 Public Finance  Cameron
Principles and practice of taxation, public expenditures, and financial administration. Prerequisite: Economics 1A-1B.
Spring (3) (Not offered in 1938-39)

133 Corporation Finance  Cameron
The corporate form of organization, instruments of long-time finance, the methods of raising capital, efficient financial management, and the financial problems of raising capital, efficient financial management, and the financial methods of raising capital. Prerequisite: Economics 1A-1B.
Fall (3)

134 Investments  Cameron
Investment principles and practices with emphasis upon problems of investment, including consideration of anarchy, individualism and liberalism, collectivism, socialism, communism, fascism, and the New Deal. Investment trusts, real estate mortgages, and the like.
Spring (3)
135 Money and Banking  
Cameron  
The elements of monetary theory. History and principles of banking with special reference to the banking system of the United States. Prerequisite: Economics 1A-1B.  
*Fall (3)*

140 Statistical Methods  
Deputy  
The nature and uses of statistical method in the social sciences. Practice in the tabular and graphical presentation of data; in the computation of averages, ratios and coefficients, measures of dispersion, and measures of relationship. Research studies are made, utilizing data obtained from typical economic and commercial situations, involving index numbers, time series, and business cycles and barometers. Opportunity to obtain practice in the use of calculating machines and other aids to computation. Prerequisite: Mathematics A, D, and G or C, or equivalents. Only two units of credit are available for this course in the case of students who previously have completed Education 140.  
*Spring (3)*

160A-160B Advanced Accounting  
Wright  
An intensive study of the corporation, its accounting and financial problems; a thorough study of the balance sheet; depreciation; factory design, construction, and operation of sets of books to meet the needs of different conditions and kinds of businesses. Six hours lecture and laboratory. Prerequisite: Economics 14A-14B.  
*Year course (3-3) (Offered in 1938-39 and alternate years)*

161 Cost Accounting  
Wright  
Principles and methods of cost accounting in the mercantile establishment and in the factory. A study of bookkeeping procedure, the forms used, and their application to practical problems. Prerequisite: Economics 14A-14B.  
*Spring (3) (Offered in 1939-40 and alternate years)*

162 Accounting Systems  
Wright  
The accounting systems used in various types of business and financial concerns. Some practice in devising and installing systems. Prerequisite: Economics 14A-14B.  
*Spring (3) (Offered in 1939-40 and alternate years)*

163 Machine Accounting  
Wright  
The application of mechanical accounting devices to accounting conditions together with a study of efficient machine methods that conform to good accounting practice and yet meet the practical accounting requirements of the study of machine installations, the course requires considerable practice. Prerequisite: Economics 14A-14B.  
*Fall (3) (Not offered in 1938-39)*

164 Income Tax Procedure  
Wright  
A consideration of the problems arising from the Federal income tax. The problems are approached from the point of view of the taxpayer who desires to determine the exact application of the law to the interests he represents as well as from the accounting point of view. No knowledge of accounting procedure is necessary.  
*Fall (2) (Offered in 1939-40 and alternate years)*

165 Auditing  
Wright  
The fundamental principles of accepted procedures of auditing and related types of accounting engagements.  
*Year Course (2-2) (Offered in 1938-39 and alternate years)*

171 Transportation  
Cameron  
The development of railway transportation; railroad financing; rates and rate making; governmental regulation; government operation of railroads during the war; recent development of motor and air transportation; current problems. Prerequisite: Economics 1A-1B.  
*Spring (3) (Offered in 1938-39 and alternate years)*

199 Special Study  
The Staff  
Designed exclusively for seniors with a major in economics or commerce.  
*Spring (2)*

**ECONOMIC GEOGRAPHY**  
(See Geography)

**MERCHANDISING**

24A Elements of Merchandising  
Torbert  
A survey of the various methods by which products reach the retailer; market structure, its principles and functions; types of retail institutions, their origin, growth and trends.  
*Fall (3)*

24B Principles of Merchandising  
Torbert  
Retail stores, the problems of store managers and merchandising executives; location, organization, personnel, sales promotion, buying and handling of merchandise, inventory, turnover and control methods. Changing problems in retailing, problems of profitable operation under present conditions.  
*Spring (3)*

25 Principles of Salesmanship  
Torbert  
Theoretical and psychological backgrounds of salesmanship, newer concepts of selling; the selling of ideas and services; steps in a sale; the development of clientele and of goodwill; the personal factor in salesmanship.  
*Torbert*

26 Applied Salesmanship  
Supervised work in cooperating stores, or outside selling; relationships between theory and practice in specific selling situations; student's role in cooperation; commission, and other incentive methods of payment in selling; problems; the development of salesmanship, or store management, in reducing the problem of the sales manager, or store manager, in making sales.  
*Spring (2)*

27 Principles of Advertising  
Torbert  
Functions, principles, and applications; market surveys and analysis; (73)
basic psychological appeals; budgeting of appropriations; selection of mediums; layout, art work copy; publicity and promotion stores; institutional advertising; the functions of agencies.

**SECRETARIAL TRAINING**

**1A-1B Typewriting**

Amsden

A rapid development of a thorough command of a keyboard by the touch method. The acquisition of speed and the artistic arrangement of typewritten material with special reference to commercial forms, tabulation and billing; specifications, legal forms, and preparation of manuscripts; transcription, mimeographing, etc. Eight hours lecture and laboratory practice.

**Year course (3-3)** (Only three units will be counted in satisfying the A.B. degree requirements in Liberal Arts curricula.)

**2A Typewriting**

Amsden

A short course designed for those not wishing to enter the business office but desiring a knowledge of the use of the typewriter. Five hours laboratory practice.

**Spring (2)**

**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. Prerequisite: Secretarial Training 1A or its equivalent.

**Spring (3)**

**5A-5B Stenography**

Amsden

An intensive course designed for the practical preparation of office secretaries. A thorough study of the Gregg System. Development of the ability to read and write shorthand rapidly and correctly, both literary and commercial. The shorthand speed necessary to pass a civil service examination is attained by the end of the year.

**Year course (5-5)**

**6A-6B Advanced Stenography**

Amsden

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

**Year course (3-3)**

**10A English in Business**

Torbert

Theory and practice of business correspondence. Business letters as applied in salesmanship; problems in writing credit and collection letters; applications for employment, adjustment letters, and sales letters. Prerequisite: English 1A or in connection with the demands of modern underlying modern education; with a view to the formulation of a working philosophy for the educative process.

**SOCIAL SCIENCE**

**LOWER DIVISION COURSES**

1 Contemporary Political, Social and Economic Problems

A. G. Peterson

An analysis of major problems of the present day with reference to the conditions out of which they arise and with regard to their essential unity and interrelationships and an attempt to introduce the student to sound methods of approach in dealing with these problems. Prerequisite: Sophomore standing.

**Fall and Spring (3)**

3 Backgrounds of Social Institutions

Rogers

An introductory survey of sociological viewpoints. Origin and spread of civilization, Economic backgrounds of society. Emergence and evolution of social institutions: the family, the state, the church. The growth of the idea of progress and the development of scientific thought.

**Fall (3)**

**SOCIOLOGY**

**Kelly**

A study of the nature and organization of human group activity, including the relation of cultural heritage to public opinion and social change. Previous preparation in biology and psychology recommended.

**Fall and Spring (3)**

**SOCIAL PSYCHOLOGY**

(See Psychology)

**EDUCATION**

**LOWER DIVISION COURSES**

17 Music in the Elementary School

Springston

Main objectives of music teaching in the public school system. Study of the child voice. Organization of song material by grades. Procedures in presenting rote songs, ear training, elementary notation, music reading, and part singing. Conducting. Not open to students taking the elementary credential, nor to freshmen. Prerequisite: Music 1A, or the equivalent.

**Fall and Spring (2)**

19 Art in the Elementary School

Patterson

Discussion of the elements and principles of art and their place in the art expression and appreciation of the elementary school child. Lectures illustrated with examples of children's work and opportunity given for experience with mediums used in elementary school problems. Not open to students taking the elementary credential. Prerequisite: Art 6A.

**Fall and Spring (2)**

**UPPER DIVISION COURSES**

106 Philosophy of Education

Ault

The fundamental biological, psychological, philosophical, social principles underlying modern education; with a view to society in a complex social, economic, and scientific world, with a view to the formulation of a working philosophy for the educative process.
107 History of Education
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; brief reviews of the educational philosophies of the great reformers; a concluding study of the development of the American school system and of American ideals and practices in education. Only 2 units allowed for students having credit for Education 8107, History of Education in the United States (offered in the summer session).

Fall (3)

108 Educational Measurements
A brief survey of the development of scientific measurement in the elementary school field, including an intensive study of the more reliable and valid tests of school achievement and of mental ability. Statistical training given in handling data obtained by using measurements in typical school situations, leading to a study of the uses of tests. Practice in the construction of teacher-made, objective tests in the elementary school subjects.

Fall and Spring (3)

109 Educational Administration and Supervision
A survey of the systems of organization, classification, and promotion of pupils, and such problems as finance, the teaching staff, building standards, extracurricular activities, etc. Prerequisites: Education 125, 108, or equivalents.

Summer (2)

110 Educational Organization and Supervision
Types of supervision and methods of evaluating and improving teaching. Prerequisites: Education 125, 108, or equivalents.

Summer (2)

111 English in the Junior High School
Objectives of literature and language teaching in the junior high schools; criteria for selection of material; technique of classroom procedure; observation in the city schools. Prerequisite: The satisfaction of the lower division requirements in English for the teaching major in English.

Spring (2)

112 Mathematics in the Junior High School
The subject matter, organization, and methods of teaching mathematics in a junior high school curriculum. Specific problems: the application of arithmetic in current social and business life, intuitive geometry, graphic representation, the phase of algebra suitable to the junior high school pupil, preparation for senior high school mathematics. Prerequisites: Psychology 1A and either Mathematics 1A-1B or 3A-3B.

Fall (2)

113 Social Science in the Junior High School
The teaching of some of the elementary facts and principles of a "general" social science suited to the experience and development of the junior high school pupil, through the medium of such social studies in the junior high school curriculum as history, geography, and civics. Methods of developing a genuine and continuing interest in social and civic problems through observation and reading, discussed and illustrated. Special stress on evaluating historical and geographical material for educational purposes on this level. Prerequisites: Six units of geography and six units of history.

Fall and Spring (2)

116 Practice Teaching
Systematic observation, participation and teaching under supervision in the campus training school, the Euclid affiliated city elementary school, the Woodrow Wilson Junior High School, and the senior high schools of the city of San Diego and vicinity.

The general plan is for elementary school credential candidates to take, in addition to the education practicums, an afternoon of teaching daily in the campus training school or two and one-half hours daily in the Euclid school throughout one semester; junior high school and special secondary school credential candidates will be guided by their adviser relative to the distribution of their practice teaching. For those seeking a combination of credentials, the requirements for each teaching level must be satisfied. Further information regarding this requirement should be requested of the Dean of Education when the student first registers for practice teaching.

Thirty clock hours of practice teaching will usually carry one unit of credit in this course, but the final amount of credit allowed will depend upon the character and quality of the teaching done by the student. Practice teaching requirements may be reduced for those who furnish evidence of successful public school experience.

The maximum amount of credit allowed for this course is twelve units. The universities usually reduce the amount of practice teaching credit they will allow to four units. Students planning to transfer to such institutions should be prepared to meet this reduction with an equal number of acceptable units in other courses.

No grade below a C is acceptable for credit in this course.

Prerequisites: Completion of 75 units of college work; admission to teacher training; a C average in all college work and in the work of the preceding semester; three units of work in psychology. No credit will be given unless the student registers for this course in the office of the Dean of Education.

119 Art in the Junior High School (2)
Class problems, discussions and observations which will give an understanding of the type of work that should be taught in junior high schools.

Spring (2) (Offered in 1938-39 and alternate years)

120 General Science in the Junior High School (2)
Baird, Johnson
The content, methods, field work, text books, laboratory work, equipment, and reference reading for teaching general science in a junior high school.

Prerequisites: Eighteen units of college science including one year-course in a college biological science, Physics 2A-2B, or equivalent, and high school or college chemistry.

Spring (2) (Offered in 1938-39 and alternate years)
121 Principles of Secondary Education  

The principles of educational science that should underlie the organization, administration and curriculum of the secondary school. Prevailing patterns of high school education; tendencies in the direction of future development. Particular attention to the method of directing learning in the secondary schools. Prerequisite: Psychology 1A. Open only to students with senior standing.

Fall and Spring (3)

124 Romance Languages in the Junior High School  

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. Prerequisite: Two years of college French or Spanish.

Spring (2) (Offered in 1939-40 and alternate years)

125 The Elementary School Curriculum  

An analytical and constructive curricular study of the subject matter taught in the elementary school, with particular emphasis on the upper elementary grades; together with an intensive study of teaching techniques in the elementary school, including observation of typical teaching procedures. The course embraces individual and group research work in curricular materials, visual aids, type lessons, and experimental studies of teaching methods.

Required of candidates for junior high and special credentials in art and physical education. Candidates for a combination of the elementary and junior high school credentials must register for the education practicum instead of this course.

Fall (3)

127 Music in the Secondary School  

Main objectives of music teaching in the public secondary schools. Organization of the chorus and glee clubs, voices testing, survey of song materials available. Organization of courses in applied music, harmony, history and appreciation.

Fall (2) (Offered in 1939-40 and alternate years)

130 Educational Psychology  

Man's equipment for learning and the learning process. Consideration given to human behavior which is fundamental to learning. The study of learning includes such topics as laws of learning, improvements in learning, remembering and forgetting, fatigue in learning, and the transfer of training. Prerequisite: Psychology 1A.

Spring (3)

137 Comparative Education  

School systems of England, France, Germany, and Denmark; traits of peoples; origin and development of school systems; literacy of populations; traditional influences; characteristic types of schools and educational processes; governmental and private support; training of teachers. A knowledge of History of Education desirable but not required.

Fall (3)

140 Elementary Educational Statistics  

An introductory study of measures of central tendency, of variability, and of relationship which are commonly used in connection with educational work. Laboratory training in statistical method and opportunity to obtain practice in the use of calculating machines and other aids to computation. Data for statistical research taken from typical school situations. Only 2 units allowed students who have taken Economics 140.

Fall (3)

142 Educational Sociology  

A consideration of school practices in light of social needs; interrelationships of schools and other social agencies; and trends in cooperative activities among community organizations. Selected individual study projects to make personal contacts with various types of public and private social institutions and with some current social movements. Prerequisite: Upper division standing.

Spring (3)

145 Organization and Administration of Music Education  

Theory of the general principles of music administration; correlation of music with the various subjects in the public schools; music tests; creative work.

Fall (2)

147 Education Practicum—Lower Levels  

Barbour, Hambuck, Nordahl, Patterson, Schwob, Springfield, Stone

The education practicums are intended to integrate content material, educational principles and theory with practice as found in the modern progressive elementary school. Conferences are held daily by each of the training school supervisors who is responsible for a small group of 10-15 students. All the students enrolled in each practicum meet as a group with the principal of the training school or one of the special subject supervisors of art, music and physical education three times per week. Lectures, discussions and reports of observation and reading assignments occupy the time of these meetings. In order to see the relationship of the theory under discussion and actual school practices, the student is required to spend two hours per week in observation under the direction of the supervisor and five hours per week in participating in the activities of the pupil-group under the direction of the principal. This participation takes the form of induction into teaching concurrently with the mastery of fundamental processes and techniques. A considerable amount of the credit in the practicums is not for content material ordinarily found in education courses but is included under this title because of its very close relationship in use. For evaluating credits the content of each practicum is distributed as follows: educational methods, 5 units; educational principles and psychology of learning, 3 units; mental hygiene, 1 unit; health and physical education, 2 units; practice teaching, 2 units.

A group of courses taken at this or another college will not be recognized as a substitute for the practicums. Credit for such courses may be submitted to the Dean of Education to ascertain if it will reduce in any way the total requirements.

The student should register for his first practicum course at the beginning of his junior year or as soon thereafter as he can qualify. Assignments to
supervisor-groups and to participation will be made by the principal of
the training school at the time of registration. Not more than 30 full-
time participants in the lower level nor more than 45 full-time partici-
pants in the upper level may be registered in any one semester.
Fall (12) and Spring (13)

148 Education Practicum—Upper Levels (See description above.)
Bacon, Barbour, Corbett, Patterson, Post, Schwob, Springfield,
Stone.
Prerequisite: Education 147.
Fall and Spring (12 to 14)

160 Commercial Education
Wright
Aims, objectives and procedures in commercial education. A study of
curricula, together with a consideration of the content of commercial
subjects; tests applicable to commercial teaching.
Fall (2)

161 Junior Business Training
Wright
The methods and content of the course in the elements of business train-
ing as offered in the junior high school. Not open for credit for those
who have taken Secretarial Training 3A.
Spring (2)

163 Stenography
Amsden
Methods and content of courses in stenography. Prerequisite: Secre-
tarial Training 5A-5B, 6A.
Fall (2)

164 Bookkeeping
Wright
Various types of bookkeeping method, with considerable study of content.
Fall (2)

165 Typewriting
Amsden
Methods in typewriting and office procedure. Prerequisite: Secretarial
Training 1A.
Spring (2)

170 Administration of a Visual Instruction Program
Evans
The service program of a visual instruction center is studied as a collect-
ing, selecting, organizing and distributing center for classroom illus-
trative materials; a teacher training and advisory bureau in the technique
and correct use of visual aids; a photographic production laboratory;
for making current and local illustrative materials for the curriculum;
a testing division for evaluating visual equipment, standardization and
upkeep of same; a center for correlating and integrating the school pro-
gram with opportunities offered by other community educational institu-
tions and organizations; an advisory department for supervising school
film productions and for instructing teachers and students in the art of
photography and appreciation of photoplays.
This course is given at the visual education center of the San Diego city
schools and the enrollment is limited to students who have made previous
arrangements with the head of the Education Department and with the
instructor.
Fall and Spring (2)

176 Speech Arts in the Secondary School
Jones
Organisation and conduct of junior high and high school speech activities.
Fall (2)

199 Educational Problems
Education Staff
(Dean of Education in charge)
A course for senior students in teacher training who have shown ability
to work independently on educational problems. The problem can be
chosen only after consultation with a staff member. Admission by consent
of the staff. Credit and hours to be arranged.
Fall and Spring (1-3)

ENGINEERING

LOWER DIVISION

1A-1B Plane Surveying
Gleason
Use and adjustment of surveying instruments, computations and map-
ning, together with a study of land, topographic, city, and mine sur-
veying. Two instruction periods and one three-hour period for field work
and mapping each week. Prerequisites: Trigonometry and Engineering
2A, or equivalent, and sophomore standing.
Year course (3-3)

3 Summer Class in Surveying
Practical field problems in reconnaissance, triangulation, location and
topographic surveys. Observations for meridian, time and latitude. Pre-
serve work in linear and angular measurements. Development of self-
reliance, accuracy, and professional skill on the part of the student. Four
weeks course held in the mountains near San Diego. For details regard-
ing location of camp, date of registration, date of opening, and other
arrangements, a special announcement of the surveying camp may be
secured at the Registrar's Office. Offered if demand is sufficient. Pre-
requisite: Surveying 1A-1B.
Summer (3)

21 Descriptive Geometry
Walling
Fundamental principles of descriptive geometry and their application to
problems of engineering. Lectures and drafting. Prerequisites: One
year of mechanical drawing, and sophomore standing.
Fall (3)

22 Machine Drawing
Walling
Design and drawing of simple machine parts with emphasis upon the
production of standard drawings. Lectures and drafting. Prerequisite:
Engineering 21.
Spring (3)

23 Materials of Construction
Walling
Structural properties and adaptability of materials used in engineering.
Lectures. Prerequisite: Sophomore standing.
Spring (3)
25 Elements of Electrical Engineering
Mathematical and descriptive consideration of electrical circuits and machinery together with a general survey of the electrical industry. Lectures. Prerequisites: Mathematics 4A, Physics 1C.
Spring (3)

28 Elements of Heat Power Engineering
Fundamental consideration of fuels, combustion, steam, boilers, furnaces, chimneys, steam engines, steam turbines and auxiliaries, internal combustion engines. Lectures. Prerequisites: Mathematics 3B, Physics 1B. Primarily for engineering students other than mechanical or electrical.
Fall (3)

UPPER DIVISION

125 Elements of Electrical Engineering
Essentially the same as Engineering 25 with addition of special problem work for advanced students. Prerequisites: Mathematics 4A, Physics 1C. Primarily for students enrolled in the Engineering Physics curriculum.
Spring (3)

128 Elements of Heat Power Engineering
Essentially the same as Engineering 28 with addition of special problem work for advanced students. Prerequisites: Mathematics 3B, Physics 1B. Primarily for students enrolled in the Engineering Physics curriculum.
Fall (3)

ENGLISH

Lower division preparation for the liberal arts major in English and for the junior certificate: English 1B-2 or 3 and six units from 52A, 52B, 56A, 56B.

Liberal arts major (upper division): 24 units in upper division English to be selected and arranged under supervision of the department. Not German or French.

1A Freshman English
The elements of composition, including drill in grammar and usage, and the principles of effective writing. Fall and Spring (1)

1B Freshman English
Composition stressing exposition. Reading from essays of England and America since 1850. Prerequisite: English 1A or equivalent (as indicated by Subject A test or record from another college).
Fall and Spring (3)

2 Sophomore English
Composition stressing personal narrative and informal essay. Reading from field of biography and memoirs. Prerequisite: English 1B.
Fall and Spring (3)

3 Sophomore English
Composition stressing article writing of varied types. Reading from current periodical literature. Prerequisite: English 1B.
Fall and Spring (3)

4A-4B Great Books
Outcalt
A survey of books and bodies of literature that are significant sources or expressions of European and American culture. These include the Hebrew Bible, Greek epic and tragedy, Norse eddas, and other literature of religious and communal character; and highly significant masterpieces in poetry and prose by great authors down to the nineteenth century.
Year course (3-3)

10 Recreational Reading
Dickhaut
Development of personal tastes for leisure-time reading through lectures and oral or written reports. May be taken a second time with new material.
Fall and Spring (1)

52A-52B Types of Literature
Outcalt
Semester I: Introduction to the study of lyrical and narrative poetry; origin and elements of poetry; typical poems. Semester II: The study of dramatic poetry and prose; the essay, novel and short story; elements, principles and characteristics; examples.
Year course (3-3)

55A-55B Dramatic Production
Jones
See Speech Arts, page 113.

56A-56B Survey of English Literature
Keeney
The most important masterpieces of English literature from the Anglo-Saxon period through the Victorian age.
Year course (3-3)

UPPER DIVISION COURSES

101 Modern Prose Fiction
Dickhaut
Recent and contemporary fiction in novel and short story, including British, American, and a brief selection from the Continental.
Spring (3)

106A, 106B Advanced Composition
Dickhaut
A laboratory course in modern prose writing. Semester I: Artistic. A laboratory course in modern prose writing. Semester II: The essay, narrative, with description. The short story. Prerequisite: One of the magazine article criticism. Either semester may be taken first.
Fall, Spring (2-2) (Offered in 1939-40 and alternate years)

107A, 107B Advanced Composition
Adams
These courses are designed for students who wish to do independent work in composition. The discussions will consider the problems of effective work in composition.

(Continued)
It's a continuation of Nineteenth Century British Prose, including the prefaces of Shaw and the essays of Beerbohm, Belloe, Chesterton, Gosse, Galsworthy, Inge, Stevenson, Tomlison, Wells, and others.

Fall (3) (Offered in 1939-40 and alternate years)

130A American Literature
A survey of American literature with its backgrounds from the beginning of the 19th century to about 1890. Cooper, Melville, Hawthorne, Poe, Emerson, Thoreau, Whitman, Mark Twain and others are considered and related to national development. Lectures, discussions and reports.

Fall (3)

130B American Literature
F. D. Walker
A survey of American literature with its backgrounds, covering the period from about 1890 to the present time. Extensive reading in recent and contemporary poetry, fiction, etc. Lectures, discussions and reports.

Spring (3)

143 The Development of the English Novel
F. D. Walker
History of the English novel from the beginnings to Hardy. Extensive reading of novels with reports. Lectures and discussion.

Fall (3) (Offered in 1939-40 and alternate years)

151 Medieval Literature
Keeney
The literature of the fourteenth century, especially the verse romances and the poetry of Chaucer.

Fall (3)

156A-156B Advanced Drama
See Speech Arts, page 113.

160 Seventeenth Century Literature
Adams
Emphasis is put upon the work of Milton.

Fall (3) (Offered in 1939-40 and alternate years)

163 Rhythm, Pantomime and Choric Verse
See Speech Arts, page 113.

JOURNALISM
(See pages 94-95)

SPEECH ARTS
(See pages 113-114)
### FOREIGN LANGUAGES

As a background for advanced work in Romance languages, students are advised to include in their electives as many as possible of the following courses: Geography 118, History 121A, 121B, 131A, 148B, Aesthetics 50 or 150; English 4A, 4B, 52A, 52B, 101, 116, 117, 118, 119, 121, 126, 145, 160.

### FRENCH

#### LOWER DIVISION COURSES

**Lower division preparation for the liberal arts major in French:** French A-B-C-D; either German A-B or Spanish A-B; History 4A-4B.

**Liberal arts major in French:** Twenty-four units of upper division work, of which at least eighteen must be in French, and of which a maximum of six may be in related subjects, arranged in consultation with the chairman of the department. At least a C average in upper division major courses.

**A-B Elementary**

Intensive study of French grammar and syntax; daily written work discussed in class; class drill in conversational idiom and pronunciation; reading with oral discussion and résumés; dictation; introduction to contemporary prose writers. Credit not given for French A unless followed by French B. Students who have had one year of French in high school should register for French A, but will receive only two units of credit. Those who have had two years of French in high school should register for French B, in which case they will receive four units of credit.

*Year course (5-5)*

**C-D Intermediate**

Reading and composition; study of standard prose as a basis for class work, collateral reading with résumés and written reports in French; dictation. Individual conferences. Prerequisite: French B or three years of high school French, or its equivalent. Students with credit for four years of high school French, or its equivalent, should enter French D.

*Year course (3-3)*

**SC Scientific**

L. P. Brown

Reading taken from the fields of chemistry, physics, medicine, zoology, ten reports. Prerequisite: French B or equivalent.

*Spring (2) (Offered in 1939-40 if registration warrants)*

#### UPPER DIVISION COURSES

**101A-101B Conversation and Composition**

E. M. Brown

Prerequisite: French D, or its equivalent, with grade of C.

*Year course (3-3)*

**105A-105B Modern French Drama**

E. M. Brown

Plays of Molière, Racine, Voltaire, and Rousseau. The Encyclopédias. Prerequisite: French D, or its equivalent, with grade of C.

*Year course (3-3) (Offered in 1941-42)*

### GERMAN

#### LOWER DIVISION COURSES

**A-B Elementary**

Pronunciation, reading and grammar, with practice in simple conversation, narration and description, both oral and written. Credit not given for German A unless followed by German B. Students who have had one year of German in high school should register for German A, but one year of German in high school should register for German B, in which case they will receive only two units of credit. Those who have had two years of German in high school, should register for German B, in which case they will receive four units of credit.

*Year course (5-5)*

**C-D Intermediate**

Reading and composition; study of standard prose as basis for class work; collateral reading with written reports; German conversation, work; collateral reading with written reports; German conversation. Prerequisite: German B or with the texts read as a basis; dictation. Prerequisite: German B or with the texts read as a basis; dictation. Prerequisite: German B or with the texts read as a basis; dictation. Students with credit for four years of high school, German, or its equivalent, should enter for four years in high school German, or its equivalent.

*Year course (3-3)*

### GENERAL LANGUAGE

#### LOWER DIVISION COURSES

**A Latins and Greek Word Derivation**

L. P. Brown

A general and elementary course in philology. A study of Latin and Greek roots of most frequent occurrence in English, and of the English words derived from them. Not open to first semester freshmen.

*Fall (2) (Offered in 1938-39 and alternate years)*

### HISTORICAL LINGUISTICS COURSES

**A-B Elementary**

Prerequisite: German A; history of language; literature of language; phonetics, phonology. Credit not given for German A unless followed by German B. Students who have had one year of German in high school should register for German A, but one year of German in high school should register for German B, in which case they will receive only two units of credit. Those who have had two years of German in high school, should register for German B, in which case they will receive four units of credit.

*Year course (5-5)*

**C-D Intermediate**

Reading and composition; study of standard prose as basis for class work; collateral reading with written reports; German conversation, work; collateral reading with written reports; German conversation. Prerequisite: German B or with the texts read as a basis; dictation. Prerequisite: German B or with the texts read as a basis; dictation. Prerequisite: German B or with the texts read as a basis; dictation. Students with credit for four years of high school, German, or its equivalent, should enter for four years in high school German, or its equivalent.

*Year course (3-3)*
SC-SD Scientific Messner
Full semester. Readings in scientific reader on chemistry, physics, etc.; occasional written reports on scientific subjects read outside of class; sight reading. Spring semester. Readings in special scientific or technical works; weekly written reports required; sight reading. Prerequisite: German SC-German B with a grade of C or three years of high school German; German SD-German SC, German C with a grade of C, or four years of high school German.
Year course (2-2) (Offered in 1939-40)

SPANISH
Lower division preparation for the liberal arts major in Spanish: Spanish A-B-C-D; French A-B: History I-A-B.
Liberal arts major in Spanish: Twenty-four units of upper division work, of which at least eighteen must be in Spanish, and of which a maximum of six may be in related subjects, arranged in consultation with the chairman of the department. At least a C average in upper division major courses.

A-B Elementary L. P. Brown
Intensive study of Spanish grammar and syntax, with daily written work; class drill in conversational idiom and pronunciation; reading with oral discussion and résumé; dictation; introduction to contemporary writers. Credit not given for Spanish A unless followed by Spanish B. Students who have had one year of Spanish in high school may register for Spanish A, but will receive only two units of credit. Those who have had two years of Spanish in high school may register for Spanish 3.
Year course (5-5)

C-D Intermediate Phillips
Reading and composition: study of standard prose as basis for class Spanish; dictation. Class work conducted mainly in Spanish. Individual Spanish, or its equivalent. Students with credit for four years of high school Spanish, or its equivalent, should enter Spanish D.
Year course (3-3)

1-2 Elementary Baker
A course similar to Spanish A-B, but meeting only three times a week and giving only three units of credit a semester. Intended for those who do not wish to major in Romance languages and for those who wish to go more slowly than is possible in a course meeting five times a week. Students who have had one year of Spanish in high school should take Spanish 2. Credit not given for Spanish 1 unless followed by Spanish 2.
Year course (3-3)

3-4 Intermediate L. P. Brown
A continuation of Spanish 1-2. Reading of Spanish prose; composition: outside reading in Spanish 4, with reports. Students with two years of

UPPER DIVISION COURSES

101A-101B Conversation and Composition Phillips
Prerequisite: Spanish D, or its equivalent, with grade of C.
Year course (3-3) (Offered in 1939-40)

102A-102B Introduction to Spanish Classics L. P. Brown
Reading from several types of classical literature. Lazarillo de Tormes and other novels of Rognay; selections from Don Quixote, and the Cien Mejores Poesias Castellanas; one drama each from the works of Lope de Vega, Calderon, Alarcon, and Moreto; collateral reading and reports. Prerequisite: A grade of C in Spanish D or permission from the instructor.
Year course (3-3)

104A-104B Spanish-American Literature Phillips
A survey of the whole field of Spanish-American literature during the colonial, revolutionary and modern periods. Lectures, class reading and discussion, collateral reading and reports. Prerequisite: A grade of C in Spanish D or permission from the instructor.
Year course (3-3) (Offered in 1940-41)

105A-105B Modern Spanish Drama L. P. Brown
The development of the drama of Spain from the beginning of the nineteenth century to the present time. Prerequisite: A grade of C in Spanish D or permission from the instructor.
Year course (3-3) (Offered in 1939-40)

110A-110B Novel and Short Story in Spain L. P. Brown
The development of the novel and short story in Spain from 1850 to the present time. Prerequisite: A grade of C in Spanish D or permission from the instructor.
Year course (3-3) (Offered in 1941-42)

199 Comprehensive Reading and Survey Course The Staff
Designed to fill up the gaps in the reading done in courses. Class meeting once a week for guidance, reports, and quizzes. Required of all seniors majoring in Spanish.
Spring (3)

GEOGRAPHY

Lower division preparation for the liberal arts major in geography and for the junior certificate: Geography 1, 2, 3, and Geology 1A-1B. Recommended: A reading knowledge of French or German.

Liberal arts major (upper division): Twenty-four units of upper division work in geography or 18 units in geography and six units in related work in history or in economics or in political science, or the equivalent, arranged in consultation with the chairman of the department.

LOWER DIVISION COURSES

1 Introduction to Geography: Elements Post, Storm
The nature of maps; weather and the climates of the world; land forms
and their associated soils, with reference to their climatic relation; the seas and their coasts. Open to all students.

Fall and Spring (3)

2 Introduction to Geography; Natural and Cultural Regions

Storm, Post

The regional differentiation of the world by human activity; areal bases of economy and nationality. Prerequisite: Geography 1.

Fall and Spring (3)

3 Elementary Meteorology

Blake

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

Spring (3)

12 Geography of California

Storm

The main physiographic regions of California and the cultural landscapes developed by the successive cultural groups. Prerequisite: Geography 1.

Spring (2)

13 Regions: Advanced

Storm

Special regions selected from Africa, Australia, Oceania, and Polar Areas. Prerequisite: Geography 1 and 2.

Fall (2)

UPPER DIVISION COURSES

116 Geography of Latin America

Post

Regional continental geography. The natural regions of Latin America; their occupational condition and historical evolution. Prerequisite: Geography 1.

Spring (3)

117 Geography of Northwestern Europe

Post

A study of the cultural development of the countries of Northwestern Europe in relation to physical background and resources. Prerequisite: Geography 1.

Fall (3)

118 Geography of the Mediterranean Area

Post

A study of the cultural development of the countries of Southern Europe, Western Asia, and Northern Africa in relation to physical background and resources. Prerequisite: Geography 1.

Spring (3)

121 Geography of North America

Post

The natural regions of North America, their formation and economic and historical development. Prerequisite: Geography 1.

Fall (3)

124 Geography of Asia

Storm

The cultural regions of Asia, their physical environment, and historical development. Prerequisite: Geography 1.

Spring (3)

125 Geography of the San Diego Area

Post

Directed individual rural and urban field work of San Diego area including the mapping of a small area and its geographic interpretation. Prerequisites: Geography 1, 2, and Geology 1A. Open only to liberal arts geography majors.

Fall (2) (Offered in 1939-40 and alternate years)

141 Economic Geography

Storm

A world-wide survey of the raw materials of world trade; their production and distribution as related to the major geographic regions of the world. Prerequisites: Geography 1 and 2.

Fall (3)

GEOLoJY

Department requirement in Geology for liberal arts major in Physical Science includes in addition to Geology 1A-1B, the completion of Chemistry 1A-1B; Mathematics 3A; Physics 1A-1B-IC-1D or 2A-2B; 3A-3B.

Students preparing for advanced work in Geology may substitute Engineering 21 for Mathematics 3A.

French or German, Engineering 1A-1B and Geology 21A-21B are recommended.

1A General

Brooks

The composition and distribution of earth materials, and their modification through mechanical and chemical processes of change. Three lectures and one three-hour laboratory period weekly with related field study during the semester.

Fall (1)

1B Historical

Brooks

Theories of earth origin, and the evolutionary history of the earth as traced through rock and fossil records. Consideration of the geologic history of selected regions. Three lectures and one three-hour laboratory history during period weekly, with arrangement for field study and conference during the semester.

Spring (1)

1C Physiography

Brooks

A study of the surface features of the earth with classification of the variety of land forms according to their cause and type. The fundamental meaning of scenery, with frequent illustration from local conditions and from the college collection of topographic maps. Two lectures and one discussion hour weekly. Open to all students.

Spring (1) (Offered in 1938-39 and alternate years)

21A-21B Mineralogy

Brooks

Study of the common minerals and rocks. Use of the blowpipe and simple chemical reagents but with emphasis upon sight determination. Prerequisite: Geology 1A and high school chemistry, or equivalents.

Year course (3-3) (Offered in 1939-40 and alternate years)

UPPER DIVISION COURSES

100 Physical Geology

Brooks

The evolution and description of the structural and topographical features of the earth. Faulting, folding, and orogenic forces with practical illnesses.

(91)
trations from the North American Continent. Lectures, discussions, and occasional field trips. Prerequisite: Geology 1A-1B.

Fall (3) (Offered in 1938-39 and alternate years)

101 Geologic Problems
Reconnaissance of adjacent areas with elementary mapping; or directed reading from a prepared syllabus introducing the several phases of geologic literature; or selection and preparation of material for the museum collections. Prerequisite: Geology 1A-1B. Registration subject to approval of instructor.

Spring (1-4)

GERMAN
(See Foreign Languages)

HEALTH AND PHYSICAL EDUCATION
(See Physical Education)

HEALTH EDUCATION

1 Health and Social Adjustment (Men) C. E. Peterson
An informational course in personal and community hygiene. A study of social hygiene and the hygienic principles of living. Speakers from the County Medical Association on subjects of vital interest enrich the offerings of this course. It is especially desirable that this course be taken in the freshman year.

Fall and Spring (2)

2 Health and Social Adjustment (Women) B. I. Stone
An informational course reviewing the principles underlying the improvement and preservation of personal and civic health. Social hygiene in its relations to the practical problems of young women and prospective homemakers. A detailed study of the laws and procedures in local civic health matters of particular interest to women. Required of all freshmen who are candidates for junior standing or the degree.

Fall and Spring (2)

151 Health Education B. I. Stone
A course for teacher-training students which includes the study of the detection and control of communicable diseases which may appear in the school; and the elements which underlie a health education of different ages. Hygiene of the schoolroom, such as seating, lighting;

Fall and Spring (2)

HISTORY
Lower division preparation for the liberal arts major in history and for the junior certificate: History 1A-1B or History 8A-8B, and either Political Science 1A-1B or Economics 1A-1B. Both history courses are recommended for those planning to major in history. No student shall enroll reading knowledge of at least one foreign language is expected of history majors.

Liberal arts major (upper division): Twenty-four units in upper division courses in history to be arranged in consultation with the chairman of the department. The student must, in his senior year, enroll in History 199.

LOWER DIVISION COURSES

4A-4B History of Modern Europe
Development of European society and institutions from about 1500 A.D.
Year course (3-3)

8A-8B History of the Americas
A general survey of the history of the western hemisphere from the discovery to the present time. Emphasis on the process of planting European civilization in the new world, the international contest for the American continents, the wars for independence, the development of the American republics, and their relations with each other and with the rest of the world. Based on H. E. Bolton's "Syllabus of the History of the Americas."
Year course (3-3)

111A-111B Ancient History
Semester I—Social, economic, political and cultural development of the Greek states, with emphasis upon the growth of democracy, attempts at federal union and imperialism, Hellenism.
Semester II—Roman history to the beginning of the medieval period; emphasis on the process of planting European civilization in the new world, the international contest for the American continents, the wars for independence, the development of the American republics, and their relations with each other and with the rest of the world. Based on H. E. Bolton's "Syllabus of the History of the Americas."
Year course (3-3) (Not offered in 1938-39)

121A-121B Medieval History
Osborn
General survey of European political and cultural development between 500 and 1500 A.D., with special attention to intellectual tendencies and modern Europe after 1500.
Year course (3-3)

146A-146B Diplomatic History of Europe Since 1648
Lesley
A course centering around the four major European treaties, their background, drafting and results. First semester, the Treaties of Westphalia ground, drafting and results. First semester, the Treaties of Vienna and Versailles, and Utrecht. Second semester, the Treaties of Vienna and Versailles, and Utrecht. Second semester, the Treaties of Vienna and Versailles, and Utrecht. Second semester, the Treaties of Vienna and Versailles, and Utrecht. Second semester, the Treaties of Vienna and Versailles, and Utrecht. Second semester, the Treaties of Vienna and Versailles, and Utrecht. Year course (3-3)

147 History of Modern France
Lesley
Intensive survey of the political and social development of France under the Third Republic, 1870 to the present. International and colonial problems of modern France will also be considered.
Fall (3)

148 History of Modern Germany
Lesley
Political, social and economic development of Germany after 1870, the Empire and Republic. German post-war problems, imperialism, and the establishment of the Third Reich will receive special attention.
Spring (3)

(92)
151A-151B England Since the Norman Conquest
A survey of political and constitutional development in England since 1066, stressing the transition from medieval to modern England, Tudor despotism, the struggle for self-government under the Stuarts, the rise and development of present-day political and social institutions.
Year course (3-3) (Not offered in 1988-89)

156A-156B History of British Expansion
A study of the growth, development, and break-up of the older overseas empire: the beginnings of the newer empire after 1783; the rise, federation, and imperial relations of the British Commonwealth of Nations; the crown colony system; India under British rule; and British expansion in Africa and the Pacific; development of British mandates.
Year course (3-3)

161 South America Since Independence
The republics of South America. Attention directed to the development of nationality in South America, the struggles for political stability, the exploitation of resources, diplomatic and commercial relations with the United States, and other international problems of South America. Survey of present-day conditions, political, economic, and social.
Spring (3)

163 Mexico and the Caribbean Countries
Same plan in general as outlined in History 161. Special attention to the relations of the United States with these countries, and to the recent developments in Mexico.
Fall (3)

171A-171B The Rise of the American Nation
Semester I. English colonization in North America and the development of colonial institutions and politics. Semester II. The revolutionary movement and the Revolutionary War; the establishment of the government under the Constitution to the close of the War of 1812.
Year course (3-3)

173A-173B The Expansion of the United States
The rise of Jacksonian Democracy; territorial expansion and the Mexican War; the slavery controversy; the Civil War, and reconstruction; the growth and progress of the United States to the World War.
Year course (3-3) (Not offered, 1988-89)

199 Special Course for Advanced Students
Required of all students with a history major in the liberal arts curriculum and to be attended during the senior year. Other students may be admitted with the permission of the instructor.
Spring (3)

JOURNALISM

Lower division preparation in journalism for advanced work and the junior certificate: History 4A-4B, or 5A-5B; Psychology 1A, 4A; English Economics 1A-1B; Journalism 5A-51B. Recommended: English Literature Journalism 53A-53B.

For the profession of journalism introductory work in the fields of literature, history, political science, social science, economics, the arts, etc., is recommended.
The aim in the specialized courses in journalism is to offer introductory training in the principles and practices of journalistic writing only after a good foundation in correct speaking and writing of English has been laid. Practical training in news reporting and editing for student publications and for the daily press is emphasized.

LOWER DIVISION COURSE

51A-51B News Gathering and Reporting
Kennedy
Study of news sources and types; practice in news writing; newspaper organization; excursions and special lectures. Course planned for sophomores who have had English 1A-1B, with high school journalism or equivalents. Freshmen admitted by permission of instructor.
Year course (3-3)

53A-53B Applied Journalism
Kennedy
Credit earned for editorial or other staff work throughout a full semester on student publications such as The Aztec, El Palaque, Del Sudoeste.
Fall and Spring (1 to 3-1 to 3)

UPPER DIVISION COURSE

153A-153B Advanced Journalism Practice
Kennedy
Upper division work of the same type as that in 53A-53B, but with advanced requirements.
Fall and Spring (1 to 3-1 to 3)

LIBRARY SCIENCE

10 Use of the Library
J. P. Stone
The chief object is to give a working knowledge of some of the resources of the library which every teacher and student should understand—the library which every teacher and student should understand—the most important reference books, together with some instruction in the preparation of bibliographies. The course will be a requirement of those added to the library's staff of student assistants, although it will not prepare the student to become a librarian.
Fall and Spring (1)

MATHEMATICS

Lower division preparation for the liberal arts major in mathematics and for the junior certificate: Mathematics 3A-3B, 8, 4A-4B with an average of the grade of C or better; Physics 1A-1B or 2A-2B. Two or more of the following are recommended: Astronomy 1, Economics 1A-1B, 2, French A-B, German A-B, Engineering 21, Surveying 1A.
Liberal arts major (upper division): Twenty-four units including at least eighteen in upper division mathematics, the others being selected from such courses as listed above.
LOWER DIVISION COURSES

A, B, C, D, E, F, G, Introductory Mathematics

Instruction and supervised study in elementary mathematics. Students who have taken these courses previously may take them for review, others for the credit indicated. Courses A and D are equivalent to one and one-half years of algebra in high school; A, D and G to two years. Courses B, C and E are equivalent to high school courses of the same description. Students regularly enrolled shall be expected to complete at least one course for credit.

A. Algebra to quadratic equations (2).
B. Plane geometry (2).
C. Plane trigonometry (2). Prerequisites: Mathematics A, B, D.
D. Algebra beyond quadratics (2). Prerequisite: Mathematics A.
E. Solid geometry (2). Prerequisites: Mathematics A, B, D.
F. Spherical trigonometry (1). Prerequisites: Mathematics A, B, C, D, E.
G. Intermediate algebra (2). Prerequisites: Mathematics A, D.

Fall and Spring

1A-1B Elementary Analysis

A general course including topics for algebra, trigonometry, analytic geometry and calculus. Of interest to students not having time for the credit, the prerequisite being advanced algebra in high school, or Mathematics D and G. Applications are made to many fields.

1A. The differentiation and integration of algebraic, exponential and logarithmic functions, with selected topics in college algebra.

Fall (3)

1B. A short course in plane trigonometry, with selected topics in college algebra and analytic geometry.

Spring (3)

3A-3B Analytic Geometry and Calculus

Analytic geometry and differential calculus, together with an introduction to the integral calculus. Prerequisites: Trigonometry and advanced algebra in high school, with recommended grades, or permission of the department.

Year course (3-3)

4A-4B Intermediate Calculus

Integration, partial differentiation, infinite series and multiple integrals. Recommended.

Prerequisite: Mathematics 3A-3B. Solid geometry and college algebra are recommended.

Year course (3-3)

8 College Algebra

Complex numbers, determinants, partial fractions and elementary topics in theory of equations. Prerequisites: trigonometry and advanced algebra in high school, or equivalent.

Fall and Spring (2)

14A Intermediate Calculus

Substantially the same as 4A-4B. Prerequisite: Mathematics 3A-3B. Solid geometry and college algebra are recommended.

Fall (5)

14B Advanced Calculus and Differential Equations

Selected topics from advanced calculus with major attention to differential equations. Prerequisite: Mathematics 14A or 4A-4B.

Spring (5)

UPPER DIVISION COURSES

105 College Geometry

An extension of the high school course in plane geometry, dealing largely with triangles and circles. Several new procedures, including inversion, are introduced. Prerequisites: Plane geometry and trigonometry.

Fall (3)

106 Projective Geometry

Concurrence of lines, collinearity of points and other properties of figures not altered by projections; construction and study of ellipses, hyperbolas and parabolas by means of projections. Prerequisites: Plane geometry and trigonometry.

Fall (3)

111 Theory of Equations

General solutions of algebraic equations; approximate numerical solutions; applications. Prerequisites: Mathematics 3A-3B and 8.

Fall (3)

112 Analytic Geometry of Space

Planes, lines, and quadric surfaces. Prerequisites: Mathematics 3A-3B and 8.

Fall (3)

118 Advanced Calculus

Selected topics in advanced calculus, exclusive of differential equations. Prerequisite: Mathematics 4A-4B, or 4A with 4B taken concurrently.

Spring (2 or 3)

119 Differential Equations

Ordinary differential equations of first and second order, with applications. Prerequisite: Mathematics 4B or permission of instructor.

Spring (2 or 3)

140 Statistical Theory and Method

Statistical theory and method from the mathematical standpoint; applications in social and natural science. Prerequisites: Mathematics 4A-4B, Economics 1A-1B and senior standing.

Spring (3) (Not offered in 1938-39)
199A-199B Special Study

The Staff

An opportunity is offered for advanced work in algebra, geometry and calculus; or for study of vector analysis, theory of numbers, or history of mathematics. Adapted to the needs of individual students. Prerequisite: at least six units of upper division courses in mathematics with an average grade of B, or senior standing; and permission of the instructor.

Fall or Spring (1 to 3, each semester)

MUSIC

Candidates for a teaching credential in music should refer to the statement "Admission to Teacher Training Curricula" on page 36 and to the other degree requirements on that page and those following. The curriculum for the A.B. Degree with a Special Secondary credential in Music is on page 35.

Lower division preparation for the liberal arts major in music and for the junior certificate: Music 1A-1B, 4A-4B; and 2 units of electives in music; Aesthetics 1A-1B. The electives in music in both lower and upper division must include at least 6 units in Applied Music (study of voice, or an instrument), of which at least 3 units must be in piano. See page 100 for regulations regarding Applied Music.

For information regarding majors and minors in music, and other details not found here, consult the Music Education Adviser.

For courses in Appreciation and History of Music, see Aesthetics, page 57.

LOWER DIVISION COURSES

1A Music Reading and Ear Training—Fundamentals of Music

L. D. Smith

Elementary music theory; scale construction; drill in music reading both with syllables and with words; ear training, elementary music dictation; the elements and materials of music. Basic course used as prerequisite for all advanced music work for the courses in music education. Text—Gehrkens: Fundamentals of Music.

Fall and Spring (2)

1B Music Reading and Ear Training

L. D. Smith

Tonal and rhythmic dictation, rhythmic writing, sight singing with Latin syllables and with words. Text—Wedge: Ear Training and Sight Singing. Prerequisite: Music 1A, or the equivalent.

Spring (2)

1C-1D Advanced Music Reading and Ear Training

L. D. Smith

Tonal and rhythmic dictation, rhythmic writing, and sight singing in two and three parts. Text—Wedge: Advanced Ear Training and Sight Singing. Prerequisite: Music 1A-1B.

Year course (2-2)

4A-4B Elementary Harmony

Beidleman

Scale construction, intervals, chords, structure, modulation, through various types of seventh chord. Special attention is paid to the keyboard application of problems in harmonization, transposition, and modulation. Prerequisites: Music 1A-1B, or the equivalent, and at least one year of piano study.

Year course (3-3)

5A-5B Advanced Harmony

Beidleman

Completion of harmonic theory; modulation, inharmonic tones, etc. Continuation of harmonic analysis, and keyboard harmony. Melody harmonizing. Prerequisite: Music 4A-4B.

Year course (3-3)

19A-19B Instrumental Music, Elementary

Beidleman

Class instruction for beginners on any orchestral instruments, intended to develop a thorough theoretical and practical knowledge of the instruments, and some facility in playing them. Elementary conducting is also included. Especially intended as preparation for orchestral directing. Some instruments will be available on a loan basis; others for a low rental.

Year course (1-1)

19C-19D* Instrumental Music, Advanced

A composite course, including:

(a) Instrumental Ensemble. The practice and performance of music for small groups of string, wind, and brass instruments. Prerequisite: A fair amount of playing ability on some orchestral instrument.

(b) Instrumental Conducting. Theory and practice, with study of materials and methods. Not open to freshmen. Prerequisite: Music 1A-1B; 19A-19B, or the equivalent.

Year course. Units: (a) alone, 11/2; (b), with (a), 1.

20A Vocal Music

L. D. Smith

A general course open to all students. Mixed harmony in two, three, and four parts; voice quality; phrasing, interpretation, and enunciation considered in detail; study of song material suitable for junior and senior high school. Choral conducting.

Fall and Spring (1)

UPPER DIVISION COURSES

106A-106B Applied Harmony

Beidleman

Including counterpoint, form and analysis, keyboard harmony, creative work, and instrumentation—theory and practice of arranging music for instrumental combinations. Prerequisite: Music 105A-105B.

Year course (3-3)

119A Instrumental Music. (See Music 19)

L. D. Smith

120A Vocal Music (See Music 20)

MUSICAL ORGANIZATIONS

(For music majors, credit allowed only in conjunction with Applied Music study. See below.)

11 or 111* Treble Clef (Women's) Glee Club

L. D. Smith

Membership based on competitive try-outs. (1-1) (Not more than 4 units may be counted toward the A.B. degree)

* These courses are recorded by using letters with the number in alphabetical sequence for each semester the course is pursued, as for example, Music 11A, 11B, 11C, etc.
12 or 112°F Men's Glee Club  
Beidleman  
Membership based on competitive try-outs.  
(1-4) (Not more than 4 units may be counted toward the A.B. degree)

13 or 113°F Orchestra  
Beidleman  
(1-4) (Not more than 4 units may be counted toward the A.B. degree)

15 or 115°F A Cappella Choir  
L. D. Smith  
Membership based on competitive try-outs.  
(½-4) (Not more than 4 units may be counted toward the A.B. degree)

APPLIED MUSIC
Credit in Applied Music is available only for students enrolled in music classes or organizations, and is subject to special permission and arrangement. Credit is not allowed for beginning work in Applied Music. Credits: 1 unit per semester; for not less than one lesson per week, with six hours of practice per week, totaling at least ten hours instruction and one hundred practice hours per semester. Applied Music is taken under outside private teachers, subject to the approval and supervision of the music department of the college, which determines credit value and grades by examination.

Orchestral Instruments: Music 16 or 116.* Credit for study of an orchestral instrument is granted only upon satisfactory completion of work for an equal length of time in Music 19, 119, Instrumental Music; and/or Orchestra or Band.

Voice: Music 17 or 117.* Credit granted only upon satisfactory completion of work for an equal length of time in Music 20, 120, Vocal Music and/or Glee Club.

Piano (or Organ): Music 18 or 118.* Prerequisite: The ability to play satisfactorily hymns and folk songs of the type found in the Golden Book of Favorite Songs.

Minimum attainment for completion of piano requirement in music curriculum is the ability to play at sight accompaniments such as are found in the Teachers Manuals of the Progressive Music Series, Books Three and Four.

PHILOSOPHY
LOWER DIVISION COURSES

5A Introduction to Philosophy  
Steinmetz  
Elementary orientation; the persistent problems of philosophy, especially in epistemology, metaphysics, and ethics. Prerequisite: Sophomore standing, or consent of Instructor.

Fall (3)

5B The Philosophy of Science  
Steinmetz  
The problems of philosophy systematized according to the main modern divisions of science; the achievements and perplexities of scientific fields; Philosophy 5A, except that sophomores planning to major in natural science may be admitted without prerequisite.

Spring (3)

*These courses are recorded by using letters with the number in alphabetical sequence for each semester the course is pursued, as for example, Music 11A, 11B, 11C, etc.

UPPER DIVISION COURSES

105B The Philosophy of Science  
Steinmetz  
Same as Philosophy 5B, save that upper division students will be held to more exacting contribution.

Spring (3)

120 Logic, and Philosophy of Mind  
Steinmetz  
Analysis of fallacies, and the logic of argument and proof; also examination of reflective procedures in various fields of knowledge, and review of some psychological explanations of thought. Prerequisites: Psychology 1A and Philosophy 5A.

Spring (3) (Offered in 1938-39 and alternate years)

130 Ethics  
Steinmetz  
The meaning of morality; motives and sources of belief, aspiration, ideal; psychological and sociological factors; representative ethical systems; relation of ethics to other axiological studies.

Spring (3) (Offered in 1939-40 and alternate years)
### Fall Track
Fall (1/4)

### Swimming
Spring (1/4)

### Fencing
Fall and Spring (1/4)

### American football
Fall (1/4)

### Gymanastics
Spring (1/4)

The following courses fulfill degree requirements for physical education majors and meet State requirements for teaching credentials in physical education.

- **Emergencies**: The accepted procedure in meeting the emergencies which daily arise in schoolroom, play or athletic field, beach, mountains, or any of the many places where the physical director is called on for first aid. Special attention given to the arrangement of the apparatus and the activities so that many of the most common accidents are prevented or minimized. **Fall (1)**

- **Physical Education in the Elementary School**: The content of the State program in physical education forms the basis of the course. Required of men and women majoring in physical education. Not required of students taking the Education Practicum. Prerequisite: Sophomore standing. Physical Education 57 must precede or accompany. **Fall and Spring (2)**

- **Gymnastic Activities**: Theoretical and practical work in marching, free exercises, and light and heavy apparatus. Emphasis on progression and method of presenting material. The simplest and most explanatory terminology. **Fall (2)**

- **Gymnastic Activities**: Acquisition of proficiency in the performance of a great group of gymnastic stunts always popular in the gymnasium and on the playground. Work of the recreational or self-interesting type rather than the formal. Tumbling, stunts, and pyramid-building given chief attention, although games of low organization are also considered. **Spring (2)**

- **Playing Rules of Modern Games**: Thorough study of latest rules of modern major and minor sports. **Fall and Spring (1)**

- **Principles of Physical Education**: Cultivation of a favorable attitude for a professional study of physical education. Ideals and aims of physical education and the relation of physical education to school and society stressed. **Fall (2)**

### Upper Division Courses

- **Organization and Administration of Physical Education**: Material presented in Physical Education 53 plus general and specific problems that confront physical education departments in junior and senior high schools and in colleges. Prerequisite: Physical Education 72. **Fall and Spring (3)**

- **Applied Anatomy**: Mechanics of the human skeletal and muscular-systems and their actions in games, formalized activities, and general body movements; mechanical strength and durability as influenced by anatomical factors. **Spring (2)**

- **Sports Methods**: Different theories and methods of teaching the more highly organized sports: baseball, basketball, tennis, and track. **Fall (2)**

- **Sports Methods**: Methods of teaching those sports most adaptable to intramural and inter-class competition: golf, handball, soccer, speedball, and volleyball. **Spring (2)**

- **Technique of Officiating**: Review of material presented in Physical Education 66. Methods of officiating all the sports common to the school or college program; also methods of training student officials. Practice in the handling of elementary, junior high, senior high and intramural college competition. **Spring (2)**

- **Technique of Teaching Activities**: Directed leadership in activities. A course preliminary to practice teaching in which students are given opportunity to develop leadership and teaching technique. **Spring and Fall (1-2)**

- **Community Recreation**: Planned to meet the needs of the various workers in community playground systems apart from schools, as well as the needs of directors of playgrounds. Special attention given to scout and campcraft. **Spring (2)**

- **Theory of Coaching Football**: Methods of coaching football. Details of teaching individual fundamentals, offensive and defensive team play, strategy, and conditioning of athletes. Two hours of lecture and three hours of laboratory. **Spring (2)**

### Physical Education

Women's Department Candidates for a teaching credential in physical education should refer to the statement "Admission to Teacher Training Curricula" on page 26, and to the outline for the A.B. Degree With Special Credential in Physical Education on pages 43 and 44.
LOWER DIVISION COURSES

Two hours weekly of directed physical activity are required in freshman and sophomore years. In order to meet this requirement, students taking the curriculum leading to the A.B. degree with an elementary credential must take Physical Education 36A-36B or 36C, 37, and 38A. All other students are required to take Physical Education 36A-36B or 36C, or 38A-38B.

36A Fundamental Skills

Practice in efficient fundamental body movements. Required of all Freshmen.
Fall and Spring (1)

36B Folk Dancing or Bennett
36C Rhythmic Skills

Schwob

Fundamental movements, simple dance forms and improvisation. Required of all Freshmen. Both 36B and 36C required of all women majoring in physical education.
Fall and Spring (1)

37 Games and Rhythms for the Elementary School Schwob, Shafer

Prerequisite: Physical Education 36A-36B or 36C or equivalent.
Fall and Spring (1)

38A, 38B Sports and Dancing Physical Education Staff

Sophomores may elect from the following:

Folk dancing
Beginning or advanced dancing
Tennis
Swimming
Golf
Badminton
Archery
Stunts
Tumbling
Seasonal sports.

53 Physical Education in the Elementary School Schwob

The content of the State program in physical education forms the basis of the course.

Required of men and women majoring in physical education. Not required of students taking the Education Practicum. Prerequisite: Sophomore standing. Physical Education 37 must precede or accompany.
Fall and Spring (2)

58A-B The activities listed under 38A-B may be taken as 58A-B for additional credit.

SPORTS

1. The Individual Activities, swimming, tennis, golf, archery, badminton and dancing are offered throughout the year. Women majoring in physical education select one as a major activity and two others as minors. Skills in the activities thus selected must be maintained as prerequisite to the senior course, Physical Education 185. (See page 106.)

2. The Seasonal Group Sports are volleyball, basketball, hockey, speedball or soccer, and baseball. Majors participate in at least two seasons of each.

UPPER DIVISION COURSES

Open to all women. Required of women majoring in physical education.

102 Emergency and Safety Programs Bennett

Prevention of accidents; practical application of first aid methods leading to American Red Cross First Aid Certificate.
Fall (1) (Offered in 1938-39 and alternate years)

153 Administration of Secondary Physical Education Schwob

Study of administrative problems applied to high school situation including organization of instructional and recreational programs, classification of students, and routine administration.
Spring (2) (Offered in 1938-39 and alternate years)

155 Applied Anatomy C. E. Peterson

Mechanics of the human skeletal and muscular-systems and their actions in games, formalized activities, and general body movements; mechanical strength and durability as influenced by anatomical factors.
Spring (2)

157A-157B Sports Methods Shafer

Practice for skill, study of rules, and of coaching methods. Prerequisite: A season's experience in at least four of the following sports—volley ball, basketball, hockey, speedball, soccer, baseball.
Year course (2-2)
158 Stunts and Tumbling  Bennet
A practical course in personal technique. Progressive series of individual, dual, and group stunts, including simple pyramids. 
Spring (4) (Offered in 1938-39 and alternate years)

160 Principles of Teaching Gymnastics  Schwob
Gymnastic materials and methods followed by practice in teaching marching gymnastics and use of apparatus.
Fall (2) (Offered in 1938-40 and alternate years)

161 Folk Dancing  Schwob
Practice in folk and clog dancing. Methods of presentation and study of costumes and customs related to the dance. Notebooks required. Open to all upper division men and women.
Spring (2) (Offered in 1938-40 and alternate years)

164A-164B Advanced Dancing  Schwob
Prerequisite: Physical Education 36C, Beginning Dancing or equivalent.
Year course (2-2) (Offered in 1938-39 and alternate years)

168 Physiology of Exercise  Bennett
A non-laboratory course emphasizing the relation of physiology to muscular exercise in physical activities.
Spring (2) (Offered in 1938-40 and alternate years)

169 Technique of Teaching Activities  Schwob
Observation, lesson planning, and teaching of college classes.
Fall and Spring (2)

170 Recreational Leadership  Shafer and Assistants
Fundamentals of recreational leadership developed by instruction in Scout craft, Camp Fire lore, Girl Reserve activities, the study of school recreational needs and facilities, and of civic recreation. Open to all upper division women. Recommended to students interested in the recreational aspects of social service.
Spring (2) (Offered in 1938-40 and alternate years)

173 Principles of Physical Education  Schwob
A study of the more significant influences shaping the trend of physical education in the past and present. General philosophy and principles of physical education and its relation to general education.
Fall (2) (Offered in 1938-39 and alternate years)

177 Individual Program Adaptations  Schwob
Adjustments of the physical education program to the physical needs and capacities of individuals: problems concerning protective and preventive measures which are not highly specialized corrective phases.
Spring (2) (Offered in 1938-39 and alternate years)

185 Technique of Individual Sports  Shafer
A course summarizing rules, teaching methods, and individual playing ability. A required senior course. Can not be taken until all requirements regarding sports and games have been fulfilled (See page 104.)
Fall (1)

(106)

PHYSICAL SCIENCE

Lower division preparation for the liberal arts major in physical science and for the junior certificate: Fulfillment of the departmental requirements for upper division work in at least two of the following sciences: Chemistry, geology, physics. Recommended: A reading knowledge of French and German.

Liberal arts major (upper division) in physical science, required: Twenty-four units of upper division work in two or more of the physical sciences, chemistry, geology, and physics, with a minimum of six units in each of two of these sciences.

1 Introductory  Moe
A survey course dealing with the nature of man's physical universe. The subject matter covered includes work in fields of astronomy, chemistry, geology and physics; chosen to provide a background for present-day physical science thought. Not open to students who have taken high school or college physics and chemistry or either of these subjects combined with astronomy or geology.
Fall and Spring (3)

1A-1B General Mechanics and Heat  Baird
Mechanics, properties of matter, and heat. A development of the fundamental ideas which underlie the subject of physics, and the application of these ideas to such problems as motion of objects, and the transmission and reflection of sound and light. Required of all students in the physical sciences. Two lectures and two laboratory periods weekly. Prerequisites: A reading knowledge of French and German.
Year course (3-8)

1C-1D General Electricity, Magnetism, Sound, and Light  Baird
A continuation of Physics 1A-1B for students in the sophomore year. Two lectures and one laboratory period each week.
Year course (3-3)

2A-2B General  Baird
Properties of matter, mechanics, heat, sound, light, electricity, and magnetism. A nonengineering course. Required of all students in the physical sciences. Two lectures and two laboratory periods weekly. Prerequisite: Two years of high school mathematics.
Year course (3-8)

(107)
3A-3B Physical Measurements

Baird

Laboratory work in mechanics, properties of matter, heat, sound, light, electricity, and magnetism. Usually taken in conjunction with Physics 2A-2B.

Year course (1-1)

UPPER DIVISION COURSES

105A-105B Analytical Mechanics

Moe

Treatment of fundamental principles of statics, kinematics, and dynamics of particles and rigid bodies. Prerequisites: Physics 1A-1B or 2A-2B and a working knowledge of calculus.

Year course (5-3) (Offered in 1938-39 and alternate years)

106 Optics

Baird

Refraction, color, interference, diffraction, polarization, radiation, and optical instruments. Prerequisite: Eight units in physics.

Fall (3) (Offered in 1938-39 and alternate years)

107A-107B Electrical Measurements

Baird

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

Year course (3-3) (Offered in 1939-40 and alternate years)

108 Modern

Baird

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

Spring (3) (Offered in 1938-39 and alternate years)

112 Advanced Heat

Moe

Thermal properties of matter. An introduction to the kinetic theory of gases and the laws of thermodynamics. Prerequisites: Eight units in physics and a working knowledge of calculus.

Spring (3) (Offered in 1939-40 and alternate years)

114 Wave Motion and Sound

Moe

A study of wave motion and its applications to sound production and transmission. The principles of musical instruments and architectural acoustics. Prerequisite: Eight units in physics.

Fall (3) (Offered in 1939-40 and alternate years)

199 Special Study

Baird, Moe

Reading or work on special problems in physics. Admission by consent of the instructor. Credit and hours to be arranged in each case. Open to students who have completed at least eight units of work in the department with a grade of A or B.

Fall and Spring (1 or 2, 1 or 2)

POLITICAL SCIENCE

Lower division preparation in political science for advanced work and for the junior certificate: Political Science 1A-1B and Economics 1A-1B or History 4A-4B. High school civics is presupposed in the following courses:

(108)
112 International Organization

Prewar attempts at international organization, the effect of the World War on ideas of international relationships, postwar attempts at organization. Special attention will be given to the organization and development of the League of Nations, its machinery, accomplishments and failures, and to national attitudes toward cooperation since the war.

Spring (3)

175A-175B American Constitutional Development

Leonard

A study of the work of the Convention of 1787, and of significant phases of American constitutional law.

Year course (3-3) (Not offered in 1938-39)

PSYCHOLOGY


1A General Steinmetz

An elementary survey of normal adult psychology, focused upon personality; the subjective and objective aspects of behavior. Furnishes basis for all other courses in psychology. Prerequisite: Sophomore standing.

Fall and Spring (3)

1B General Steinmetz

A continuation of general psychology designed to familiarize the student with (1) elementary experimental methods, (2) famous experiments in psychology; and (3) some one topic (not included in upper division courses) in which he pursues an independent experimental approach. Prerequisite: Psychology 1A.

Spring (3)

2A Psychology and Life

General psychology with a minimum of technical terminology and debatable materials. Made as practical as is consistent with the field to be covered in a beginning course. Meets general psychology requirements in all curricula, but does not meet prerequisites for psychology 1B.

Fall and Spring (3)

4A Applied

Applications of psychology to problems of the individual in learning, making social adjustments, choosing a vocation, developing desirable personality traits, and achieving success and happiness. Survey of psychology as applied in education, music, art, speaking, writing, law and medicine. Prerequisite: Psychology 1A. Recommended: Psychology 1B.

Fall (2)

4B Psychology Applied in Business

Applications of psychology to a wide range of problems encountered by the man in business. Motives, attitudes, habits, and traits in their relation to behavior of employee, employee, and executive. Advertising, salesmanship, and problems of selecting, placing and increasing the efficiency of employees. Business cycles, and business research. Prerequisite: Psychology 1A. Recommended: Psychology 1B and Psychology 4A.

Spring (2)
SOCIAL ECONOMICS

100 Science of Sociology Hinkel
A critical analysis of social processes and products, of the methods of sociological investigation and of ultimate tests of social policies.
Fall (3)

101 Problems of the Modern Community Hinkel
A study of the typical problems of the modern urban and rural community.
Spring (3)

103 Child Welfare Dennstedt
A study of the dependent, the neglected, and the handicapped child in relation to the various movements and agencies which have developed in an effort to cope with the problems presented by them.
Fall (2)

104 Field Studies Dennstedt
A study of the objectives, the underlying assumptions, and the techniques of Case Work, emphasizing the fundamental concepts which underlie "generic case work," and indicating the modifications which are essential for its adaptation to various fields. Case work is here presented as a developing process as it avails itself of the contributions of modern science, and attempts to meet the changing problems of our industrial life.
Extension Division, Spring (2)

SPANISH
(See Foreign Languages)

1A Fundamentals of Public Speaking Pfaff
Training in fundamental processes of oral expression; methods of obtaining and organizing material; outlining principles of attention and delivery; extemporaneous speaking and open forum debating; practice in construction and delivery of type forms of speech.
Fall and Spring (3)

1B Extemporaneous Speaking (or Forum Speaking) Pfaff
Practice in extemporaneous speaking on subjects of current interest both national and local, with stress laid on the organization and delivery of content material. Forum discussion will provide speakers with the opportunity of assembling facts quickly to meet such questions as any audience situation might demand.
Spring (3)

1C Oral Interpretation Pfaff
The oral interpretation of longer literary selections, both in poetry and prose; a fundamentals course designed for the beginning students in drama as well as those majoring or minoring in English literature.
Fall (3)

1D Advanced Interpretation Pfaff
Emphasis placed on stage poise and grace with adequate attention given to variations in the presentation of literary selections. Much opportunity is provided for individual and group creative work. No prerequisite. Class limited.
Spring (3)

20 Corrective Speech Pfaff
Corrective laboratory training prescribed on the basis of vocalization tests made on Electro-Vox Recording Machine. Required of education majors who fail to meet speech requirements test. Private clinical assistance given to stutterers and lispers.
Fall and Spring (1) (9 weeks' course)

55A-55B Dramatic Production Jones
A course for first and second year students in which, through participation, they acquire an understanding of certain dramatic periods and types studied in English literature. Individual and group expression coordinated in English literature. Individual and group expression coordinated in English literature. Individual and group expression coordinated in English literature.
Year course (3-3) (Offered in 1939-40 and alternate years)

8-53072
55C-55D Dramatic Expression
Jones
A course designed to help first and second year students realize and
develop their own abilities for expressing character and life. Coordina-
tion of thought, voice, and body, acquired through interpretation, im-
ersonation, and acting of contemporary situations, creative and standard
drama. History, technique, and use of dramatic expression studied.
Informal participation by all. Best work given public performances.
A fundamental course. No prerequisite.
Year course (3-3) (Offered in 1938-39 and alternate years)

UPPER DIVISION COURSES

101B Argumentation and Debate
Pfaff
Obtaining and organizing of evidence and the construction and use of
the brief; study and discussion of current issues; the presentation of
formal and informal debates. Attention to intramural and intercollegiate
debating.
No credit for students having taken 1B previous to 1934-1935.
Spring (3)

110 Recreational Reading
Dickhaut
See English, page 94.

155A-155B Advanced Dramatic Expression
Jones
For upper division students training for leadership in different fields as
well as drama. More advanced forms of dramatic expression studied;
creative abilities in interpretation, writing, acting, and stagecraft devel-
oped in relation to various subjects and activities conducted through indi-
vidual research projects, group discussion and participation. Original
work encouraged. Prerequisite: A fundamental drama course.
Year course (3-3) (Offered in 1939-40 and alternate years)

156A-156B Advanced Dramatic Production
Jones
The study of more difficult dramatic types and periods in the production
of poetic and prose literature of different countries. Arrangement, organi-
sation, creation, direction and presentation of class room, recreational
and other forms of performances. Practical participation and demon-
stration. A course designed for students majoring in other subjects as
well as the theater arts.
Year course (3-3) (Offered in 1938-39 and alternate years)

163 Rhythm, Pantomime and Choric Verse
Jones
A course planned for those desiring to engage in special drama activi-
ties, or to utilize the newer forms of dramatic expression.
Spring (2)

175 Major Speech Disorders
Pfaff
Clinical survey of newest methods of speech correction with special
emphasis given to stammering and cleft-palate speech. One of required
courses for Special Corrective Credential.
Spring (3)

ZOOGOGY
(See Biological Sciences)

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INDEX
A.B. degree, see Bachelor of Arts degree
Accounting courses, see commerce courses
Accounting and secretarial training subfield, special credential in business education, curricula for, 36
Administration and supervision credential, 29
Admission
Registration, 16-22
Requirements: adult specials, advanced standing, freshmen, 16; former students who withdrew during semester, 22
Teacher training, 20-26
Adult specials, requirements for admission, 17
Advanced standing: admission for students with, 16; fee for evaluation, 14, 17; teacher training, 24; maximum units in education allowed for old work, 26
Advertising courses, see commerce courses
Aeronautics mechanics, refer to separate bulletin on non-degree courses
Aesthetics courses, description of, 57
Agriculture, preagricultural curricula, 51
Alumni association, 13
Anthropology, description of courses, 58; exhibits of, 13
Application for candidacy for B.E. degree, 46
Applied music, courses, see music courses; required for special secondary in music, 39
Attitude test, exceptions from requirement, 17; fee for, 14; required at registration, 17; required for teacher training, 26
Art
Courses, description of, 59. See also aesthetics courses and education courses
Credentialed, special secondary, curriculum for, 35; grades covered, 29
Major for A.B. degree in liberal arts, 25, 59
Assistants, list of, 118
Associate members of faculty, list, 118
Astronomy, courses preparatory for advanced work, 62; description of courses, 62
Auditors, fee for, 14; registration of, 18
Bachelor of Arts degree
General requirements, 23-25
Liberal arts
Limited electives, limitation of credit for A.B., 26
Majors, 25. See also statement of majors under courses of instruction
Minors, 25
Political science required, 25
Preprofessional, 47-55
Requirements, 23-26
Teacher training
Admission to teacher training, 20, 26
Credentials, 28. See also credentials
Administration and supervision, 29
Art special, 35
Business education special, 36: accounting and secretarial training subfield, 36; general business subfield, 37; merchandising subfield, 38
Combination of credentials, 29
Junior high school, 33
Music special, 39
Physical education special, men, 41; women, 43
Speech arts and speech correction, 29
Limited electives, limitation of credit for A.B., 36
Requirements, 23-25, 26-44
Bachelor of Education degree, application for candidacy, 46; effective dates for, 46; general requirements, 46; nature of work and fields of study, 48; purpose of degree, 45; residence requirements, 46
Bacteriology course, description of, 64
Biological science courses, description of, 63
Botany, courses preparatory for advanced work, 63; description of courses, 64
Buildings and equipment, description of, 12
Business education, special credential in
Curricula for: accounting and secretarial training subfield, 38; general business subfield, 37; merchandising subfield, 38
Grades covered, 29
Business office, staff of, 119
Calendar, 1938-39, 9
Stage design courses, see art courses
State Board of Education, members of, 7
State Department of Education, officers of, 7
Statistics courses, see education courses and commerce courses
Stenography, see secretarial training courses. See also education courses
Student body fee, 14
Student life, comment on, 13
Study-list limits, 20
Subject A examination, see English test
Summer sessions, calendars, 1938, 19, 1939, 10
Supervision and administration credential, 29
Surveying courses, description of, 81
Table of contents, 4
Teacher training, facilities for, 12
Teacher training, see Bachelor of Arts degree
Teaching credentials, see credentials
Testing, mental, see psychology courses
Tests, see examinations
Training school, facilities for training of teachers, 12; library, 12; staff, 120
Transcript of record, 20; fee for, 15, 20; scholarship deficiencies affecting transcript, 20
Treble Clef, 99
Typewriting courses, see secretarial training courses
Units of work and study-list limits, 20
Upper division
Courses, regulation of enrollment for sophomores, 56
Majors for A.B. degree in liberal arts, 25
Requirements for A.B. degree, in liberal arts, 25; in teacher training, 25
Unit requirements for A.B. degree, in liberal arts, 25; in teacher training, 25
Vacations, calendar of, 9
Visual education course, description of, 80
Vocational and applied subjects, see limited electives
Withdrawal regulations, from class, from college, 22
Year course in language, mathematics, or philosophy required for A.B. degree, 23, 24
Year courses open to registration in the middle of the year, 56
Zoology, courses, description of, 65; major, A.B. degree in liberal arts, 25, 63