

# SAN DIEGO STATE COLLEGE

---

## BULLETIN

### *Circular of Information*

## ANNOUNCEMENT OF COURSES



---

FOR THE YEAR 1946 - 1947



## STATE DEPARTMENT OF EDUCATION

ROY E. SIMPSON.....Superintendent of Public Instruction  
and State Director of Education  
JOEL A. BURKMAN.....Assistant Director of Education

## STATE BOARD OF EDUCATION

FRED W. SMITH, President.....Ventura  
BYRON H. ATKINSON.....Glendale  
WILLIAM L. BLAIR.....Pasadena  
EUGENE T. BRODERICK.....San Francisco  
RALPH T. FISHER.....Oakland  
C. J. HAGGERTY.....San Francisco  
MRS. E. T. HALE.....San Diego  
GILBERT H. JERTBERG.....Fresno  
JOSEPH P. LOEB.....Los Angeles  
MRS. E. K. STRONG.....Stanford University

ROY E. SIMPSON, *Secretary and Executive Officer*  
MRS. FLORENCE B. ARGALL, *Assistant Secretary*

## OFFICERS OF THE COLLEGE

WALTER R. HEPNER.....President  
EDWARD L. HARDY.....President Emeritus  
JESSE W. AULT.....Dean of Professional Education  
DONALD R. WATSON.....Dean of General Education  
HERBERT C. PEIFFER, JR.....Dean of Student Personnel and Guidance  
CHARLES E. PETERSON.....Dean of Men  
MARY MENDENHALL.....Dean of Women  
FAY V. PERRY.....Director of Guidance for Two-Year Students  
SELWYN C. HARTIGAN.....Registrar  
RICHARD MADDEN.....Comptroller  
JAMES H. HUNTER.....Director of Elementary Education  
WILLIAM H. LUCIO.....Director of Secondary Education  
JOHN PAUL STONE.....Principal of Campus Elementary School  
GEORGIA C. AMSDEN.....Head Librarian  
.....Secretary of Faculty

## CHAIRMEN OF DIVISIONS

EDUCATION.....J. W. Ault  
FINE ARTS.....Lena E. Patterson  
HEALTH, PHYSICAL EDUCATION AND RECREATION.....Carl H. Young  
LANGUAGE AND LITERATURE.....John R. Adams  
LIFE SCIENCE.....Robert D. Harwood  
PHYSICAL SCIENCE.....Dudley H. Robinson  
SOCIAL SCIENCE.....Clarence G. Osborn

## CHAIRMEN OF DEPARTMENTS

ART.....Everett G. Jackson  
BIOLOGY.....Robt. D. Harwood  
COMMERCE.....William H. Wright  
EDUCATION.....J. W. Ault  
ENGLISH.....Chester B. Kennedy  
FOREIGN LANGUAGE.....Walter T. Phillips  
HISTORY AND POLITICAL SCIENCE.....Lewis B. Lesley  
MATHEMATICS.....John M. Gleason  
MUSIC.....L. Deborah Smith  
PSYCHOLOGY AND PHILOSOPHY.....Hunter Mead  
PHYSICAL EDUCATION AND HEALTH (MEN).....Carl H. Young  
PHYSICAL EDUCATION AND HEALTH (WOMEN).....Marion L. Schwob  
PHYSICAL SCIENCE.....Oscar Baird  
SOCIAL ECONOMICS.....Roy E. Cameron  
SPEECH ARTS.....Paul L. Pfaff

# BULLETIN AND ANNOUNCEMENT OF COURSES

VOLUME 33  
JUNE, 1946

SAN DIEGO STATE COLLEGE  
SAN DIEGO, CALIFORNIA



1946							1947													
JULY							JANUARY							JULY						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
-	1	2	3	4	5	6	-	-	-	1	2	3	4	-	-	1	2	3	4	5
7	8	9	10	11	12	13	5	6	7	8	9	10	11	6	7	8	9	10	11	12
14	15	16	17	18	19	20	12	13	14	15	16	17	18	13	14	15	16	17	18	19
21	22	23	24	25	26	27	19	20	21	22	23	24	25	20	21	22	23	24	25	26
28	29	30	31	-	-	-	26	27	28	29	30	31	-	27	28	29	30	31	-	-
AUGUST							FEBRUARY							AUGUST						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
-	-	-	-	1	2	3	-	-	-	-	-	1	-	-	-	-	-	-	1	2
4	5	6	7	8	9	10	2	3	4	5	6	7	8	3	4	5	6	7	8	9
11	12	13	14	15	16	17	9	10	11	12	13	14	15	10	11	12	13	14	15	16
18	19	20	21	22	23	24	16	17	18	19	20	21	22	17	18	19	20	21	22	23
25	26	27	28	29	30	31	23	24	25	26	27	28	-	24	25	26	27	28	29	30
SEPTEMBER							MARCH							SEPTEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7	-	-	-	-	-	-	1	-	1	2	3	4	5	6
8	9	10	11	12	13	14	2	3	4	5	6	7	8	7	8	9	10	11	12	13
15	16	17	18	19	20	21	9	10	11	12	13	14	15	14	15	16	17	18	19	20
22	23	24	25	26	27	28	16	17	18	19	20	21	22	21	22	23	24	25	26	27
29	30	-	-	-	-	-	23	24	25	26	27	28	29	28	29	30	-	-	-	-
OCTOBER							APRIL							OCTOBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
-	-	1	2	3	4	5	-	-	1	2	3	4	5	-	-	-	1	2	3	4
6	7	8	9	10	11	12	6	7	8	9	10	11	12	5	6	7	8	9	10	11
13	14	15	16	17	18	19	13	14	15	16	17	18	19	12	13	14	15	16	17	18
20	21	22	23	24	25	26	20	21	22	23	24	25	26	19	20	21	22	23	24	25
27	28	29	30	31	-	-	27	28	29	30	-	-	-	26	27	28	29	30	31	-
NOVEMBER							MAY							NOVEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
-	3	4	5	6	7	8	-	-	-	-	1	2	3	-	-	-	-	-	-	1
10	11	12	13	14	15	16	4	5	6	7	8	9	10	9	3	4	5	6	7	8
17	18	19	20	21	22	23	11	12	13	14	15	16	17	10	11	12	13	14	15	16
24	25	26	27	28	29	30	18	19	20	21	22	23	24	16	17	18	19	20	21	22
-	-	-	-	-	-	-	25	26	27	28	29	30	31	23	24	25	26	27	28	29
DECEMBER							JUNE							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7	1	2	3	4	5	6	7	-	1	2	3	4	5	6
8	9	10	11	12	13	14	8	9	10	11	12	13	14	1	2	3	4	5	6	7
15	16	17	18	19	20	21	15	16	17	18	19	20	21	15	16	17	18	19	20	21
22	23	24	25	26	27	28	22	23	24	25	26	27	28	22	23	24	25	26	27	28
29	30	31	-	-	-	-	29	30	-	-	-	-	-	29	30	31	-	-	-	-

## TABLE OF CONTENTS

	Page
Calendar	5
Functions of the State Colleges of California	6
The College	7
Location and Environment	7
Buildings and Equipment	7
Facilities for the Education of Teachers	7
The Faculty	7
The Library	7
Living Accommodations	8
Student Life	8
Student Health Service	8
Placement Service	8
Veterans' Education and Housing	8
Vocational Rehabilitation Service	8
Fees and Expenses	12
Probable Expenses for One Semester	12
List of Fees and Deposits	12
Admission and Registration	9
Admission by Examination	9
Admission of High School Graduates	9
Admission of Non-High School Graduates	9
Admission of Veterans	9
General Admission Requirements	9
Registration	10
Special Students	9
Tests Required at Registration Time and Later	10
Late Registration	10
Changes in Registration	10
Loans and Scholarships	11
General Regulations	13
Information	13
Classification	13
Scholarship, Grades, and Grade Points	13
Units of Work, and Study Lists Limits	13
Probation and Disqualification	14
Withdrawals from Class	14
Transcripts of Record	14
Eligibility for Directed Teaching	14
The Honors Group	14
The Degree with Honors and with Distinction	15
Examinations	15
Extension Courses	15
Bachelor of Arts Degree	16
Credit Granted for Military Service	16
Subject Matter Requirements in the Lower Division	16
Bachelor of Arts Degree in Teacher Education	19
General Requirements	16
Specific Upper Division Requirements for the Liberal Arts Curricula	17
Professional and Preprofessional Curricula	23
Teacher Education Curricula	23
Pre-agriculture Curriculum	34
Pre-dental Curriculum	35
Pre-engineering Curriculum	36
General Engineering Curriculum	37
Pre-forestry Curriculum	39
Pre-legal Curriculum	40
Pre-medical Curriculum	41
Pre-nursing Curriculum	42
Pre-optometry Curriculum	43
Social Work Curriculum	44
Pre-veterinary Curriculum	45
Public Administration Curriculum	46
Inter-American Relations Curriculum	47
Courses of Instruction	48
Division of Education	49
Division of Fine Arts	54
Aesthetics	54
Art	54
Music	57



## TABLE OF CONTENTS—Continued

Courses of Instruction—Continued	Page
Division of Health, Physical Education and Recreation	62
Health Education	62
Physical Education, Men	62
Physical Education, Women	64
Division of Languages and Literature	68
Comparative Literature	68
English	68
Foreign Languages	73
French	73
General Language	74
German	74
Italian	75
Latin	75
Spanish	75
Journalism	76
Speech Arts	76
Division of Life Sciences	80
Bacteriology	80
Biology	80
Botany	80
Physiology	81
Zoology	81
Division of Physical Sciences	85
Astronomy	85
Chemistry	86
Engineering	87
Geology	89
Mathematics	90
Physical Science	92
Physics	92
Division of Social Sciences	96
Anthropology	96
Commerce	97
Economics	99
Geography	101
History	102
Library Science	105
Merchandising	105
Philosophy	105
Political Science	106
Psychology	107
Secretarial Training	108
Social Science	109
Sociology	109
Two-Year Curricula	111
Two-Year Curriculum in Liberal Arts	111
Two-Year Curriculum in Art	112
Two-Year Curriculum in Music	112
Two-Year Curriculum in Accountancy	113
Two-Year Curriculum in Secretarial Training	113
Course of Instruction	114
Astronomy	114
Biology	114
Commerce	114
English	114
Geography	115
Geology	115
Health Education	115
Mathematics	115
Music	116
Physical Science	116
Psychology	116
Social Science	116
Sociology	116
Speech Arts	117
Directory	117
Index	118
	125

## CALENDAR 1946-47

## SUMMER SESSION, 1946

Term I, June 24-August 2

Term II-A, August 5-23

Term II-B, August 5-September 6

## FALL SEMESTER, 1946-47

August 12	Applications for admission must be filed on or before this date.
August 15-16	Qualifying Examinations for all entering freshmen who have not previously taken these examinations. No freshmen will be granted admission until these examinations have been taken. Out-of-town students may arrange to take tests during the first week of school.
September 12	First Day of Orientation Program. All entering freshmen must appear on the campus at 8.30 a.m. and remain until 3.00 p.m.
September 13	Second Day of Orientation Program. All entering freshmen must appear on campus at 8.30 a.m. and remain until 3.00 p.m.
September 13	8.30 A.M.—12.00 M. Fundamentals Tests—Required for admission to Teacher Education. Should be taken at the end of the first semester of the freshman year when possible.
	1.00—2.30 P.M. College Aptitude Test for students entering with advanced standing.
September 16-17	Registration and payment of fees.
September 18	Instruction begins. Late registration fee becomes effective.
November 28-29	Thanksgiving recess.
December 20	Last day before Christmas recess begins.
January 6	Classwork resumes.
January 23-29	Semester examinations.

## SPRING SEMESTER, 1946-47

January 6	Applications for admission must be filed on or before this date.
February 3	First Day of the Orientation Program. All entering freshmen must appear on the campus at 8.30 a.m. and remain until 3.00 p.m.
February 4	Second Day of the Orientation Program. All entering freshmen must appear on campus at 8.30 a.m. and remain until 3.00 p.m.
February 3	8.30 A.M.—12.00 M. Fundamentals Tests—Required for admission to Teacher Education. Should be taken at the end of the first semester of the freshman year when possible.
	1.00—2.30 P.M. College Aptitude Test for students entering with advanced standing.
February 4, 5	Registration and payment of fees.
February 6	Instruction begins. Late registration fee becomes effective.
March 31-April 4	Spring recess.
May 30	Memorial Day holiday.
June 5-12	Semester examinations.
June 13	Annual commencement.

## SUMMER SESSION, 1947

Term I, June 23-August 1

Term II, August 4-22



## FUNCTIONS OF THE STATE COLLEGES OF CALIFORNIA

The State colleges have three major functions, namely: (1) To help the individual student to develop a well-rounded and adjusted personality; (2) to promote civic intelligence and competence; and (3) to create supplies of trained men and women, some to serve as teachers in the elementary and secondary schools, some to fill intermediate places of leadership, and some to transfer to graduate institutions to equip themselves to extend the frontiers of knowledge and to occupy the higher positions of leadership. In terms of publicly supported higher education, the State colleges and the university together make provision for the realization of all the essential objectives of higher education in our State.

To achieve their unique purposes the State colleges have developed and are improving offerings as follows:

1. Teacher education curricula for those students who plan to teach in the elementary school, the junior high school, and in secondary schools.
2. Preprofessional curricula.
3. Curricula of varying lengths in such fields as business, industry, governmental services, homemaking, and social service.
4. General education for students who take work which leads toward the bachelor of arts degree or to the higher professions through graduate work.
5. Guidance services to assist the individual student to plan his educational program and to make his college and life adjustments.
6. Extension courses in appropriate fields.

The State colleges accept the principle that higher education should be available to all capable high school graduates. The preservation and improvement of democracy depends upon the full and unhampered development of all potential citizenship and leadership resources. In keeping with this principle the State colleges maintain flexible entrance requirements. Each applicant is treated individually in terms of his potential capacity and his potential contribution and not in terms of past academic pattern or accomplishment alone.

The State colleges purposely maintain not only flexible entrance requirements, but also, adjustable curricula, and adequate and effective guidance and counseling services to promote the personal and educational development of worthy students. The State colleges modify traditional academic restrictions and provide new curricula and services whenever such modifications and additions seem to serve the legitimate desirable needs of individuals and society.

The promotion of civic intelligence and competence is the underlying aim of all activities on State college campuses. Special emphasis centers on warm personal relationships between instructors and students, on friendly counsel in time of need, and on the day-to-day routine of living in a friendly atmosphere. Because the majority of State college students live at home, it is possible to link together the college, the home, and the community in realistic democratic relationships.

The democratic controls exercised over the State colleges make them readily and effectively responsive to individual and community needs and encourage them continuously to make significant improvements in both curriculum and personal services. The State colleges are thus laboratories in which the facts and theories developed in research, in community living, and in daily association with students are reflected in the instructional program.

The State colleges plan their program of higher education so as to provide educational services inherent in the principle of equality of opportunity.

## THE COLLEGE

### 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 California at La Jolla, gives opportunity for important cooperation in the biological sciences.

### BUILDINGS 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 Boulevard. 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 Music Building; the Campus Elementary School; Scripps Cottage (a social clubhouse for women students); the Cafe and Book Store; 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 1,500 spectators. A fine concrete stadium, constructed in a natural site, has a seating capacity that is adequate for present needs. The open air theater, seating 4,200 persons, serves as a meeting place for large groups.

### FACILITIES FOR THE EDUCATION OF TEACHERS

The college maintains a modern elementary 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, directed teaching is provided in the Euclid Elementary School for one-half day throughout a semester. A 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 special and general secondary school subjects may be assigned to one of the senior high schools.

### THE FACULTY

The professional education of the faculty places the college in the 97 percentile position among teacher education institutions of the Country. For listing and further details see the Directory on page 118.

### THE LIBRARY

The library facilities of this college are noteworthy for an institution of its size. The library consists of well over 95,000 volumes selected to meet the requirements of a modern educational institution. Six professionally trained librarians are available to render assistance to students in their reading and reference work.

For the duration of the war the library service has been further augmented by the loan of a librarian and three special libraries, namely, a collection of 3,000 volumes on anthropology and ethnology from the San Diego Museum of Man, the U. S. Grant Memorial Library of 1,375 volumes, and the 25,000 volume Scientific Library of the San Diego Society of Natural History.

The Campus Elementary School Library, representing a collection of 11,000 volumes, possesses equipment and building facilities that are unique.



### LIVING ACCOMMODATIONS

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 approximately \$200 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 through the Manager of Quetzal Hall, 5192 College Avenue, San Diego 5, California. Where students find other accommodations more desirable, written permission from parents must be secured and filed with the Dean of Women or Dean of Men.

### VETERANS' EDUCATION AND HOUSING

The college has been approved by various accrediting agencies to offer courses for veterans leading toward the A.B. Degree in some 19 major fields. A veterans' office is maintained on the campus to facilitate registration, aid in the establishment of benefits, and serve as an information center. Through a faculty committee on veterans' affairs, special counseling services are available.

The Federal Housing Authority has made available housing for 600 single male veterans at Riverlawn, located midway between Old Town and Loma Portal. For further details write to the Veterans' Secretary at the college.

### STUDENT LIFE

A rich field of extra-curricular activities is available to the student throughout his college life. The student is urged to select these activities carefully in order that he may profit by these extra-class experiences without lowering his standards of scholarship. The *Student Handbook*, available at the 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 in the amount of participation in physical activities seem advisable.

A representative of the Health Department is available each 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.

A group plan for accident insurance is in operation for students who desire to participate.

### PLACEMENT SERVICE

A Placement Office is maintained by the college, which serves as a clearing house for part-time and full-time jobs. Employers notify this office of available openings in their organizations, and also turn to the office for information concerning graduates or nongraduates whom they are considering for employment.

Included in the service of the office are the listing of part-time jobs of all types available, including opportunities to work for board and room, teacher placement, and full-time jobs in commerce and industry.

This service is free to students, who are invited to arrange for interviews with members of the placement staff if in need of assistance in finding work. Students who know of jobs in which they are not themselves interested are encouraged to notify the office of such vacancies.

The Placement Secretary should be seen or called regarding vacancies or work applications.

### VOCATIONAL REHABILITATION SERVICE

The Bureau of Vocational Rehabilitation, California State Department of Education, offers its service to students who have an employment handicap resulting from physical disability of any kind. Included are vocational counseling, the payment of tuition and fee, and the providing of textbooks without charge to the trainee. Details of the service may be obtained from the Registrar's Office.

## 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 satisfactory scores on tests which the college may require. Due to crowded conditions the college probably will have to refuse all qualified applicants who do not file application blanks and official transcripts prior to the dates indicated in the Calendar on page 5.

### ADMISSION OF HIGH SCHOOL GRADUATES

(1) A high school transcript must be presented showing satisfactory scholarship, and (2) applicants must demonstrate readiness for college instruction by making satisfactory scores on such tests as the college may designate.

**Regular status** will be granted if the student has earned A or B grades in not less than 16 semester courses in English, Social Sciences, Foreign Language, Mathematics, Natural Sciences, and related fields, during the tenth, eleventh, and twelfth grades.

**Regular-provisional status** will be granted if the student has earned A or B grades in not less than 12 semester courses in the above subjects. The student will attain full regular status at the end of the first semester in college if a scholarship average of C or better is maintained in at least 12 units of work. Failure to secure a .75 average will disqualify the student for further attendance.

**Provisional status** will be granted students who do not qualify for regular-provisional status if they have earned A or B grades in at least 12 semester courses of any type during the tenth, eleventh, and twelfth grades. These students will be enrolled in two-year curricula. Individuals who fall slightly below the above standard may be admitted to the two-year curricula if qualifying examination scores indicate probable success in these courses.

**Adult special status** may be granted an applicant who is over 21 years of age or is a war veteran provided that he demonstrates through qualifying examinations satisfactory ability to do college work. Such students may be transferred to regular status after completion of one year of satisfactory work and receive full credit for all work completed.

### ADMISSION BY EXAMINATION

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

### ADMISSION OF NON-HIGH SCHOOL GRADUATES

A high school diploma is not required for admission as an adult special student but if a non-high school graduate is so admitted he may be required to complete, in addition to the usual requirements for the A.B. Degree, three semester units of college work for each two semester courses which he lacked for high school graduation.

### ADMISSION OF VETERANS

Applicants who are veterans may be enrolled in any of the above classifications. Lack of a high school diploma will not prevent admission of a veteran provided he can demonstrate through the examinations of the college or of the United States Armed Forces Institute that he is capable of doing satisfactory college work. The college cooperates with the local high schools by helping plan correspondence study for a veteran which can lead to the issuance of a diploma by the high school.

### SPECIAL STUDENTS

Persons over 21 years of age may be admitted on the basis of maturity, provided they present satisfactory evidence of good character and intelligence. Full matriculation will be granted only upon removal of all entrance deficiencies, and the completion of a full semester of satisfactory college work.



W  
E  
J  
D  
H  
C  
M  
F  
—  
S  
R  
J  
V  
J  
G

EEELIS

ACHILLI

1  
1  
1  
1  
1  
1  
1

Petitions for changes in program may be secured at the Registrar's office. A small fee is charged for changes in program after registration books are filed.

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 the office of the Dean of Men or Dean of Women.

## REGISTRATION



## FEES AND EXPENSES

### 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.

#### A Partial Estimate of Expenses

One Semester	Minimum	Maximum
Fees and Deposits.....	\$20.00	\$27.50
Books.....	12.00	25.00
Board and Room.....	200.00	---
Transportation, Lunches, Incidentals.....	15.00	50.00
Miscellaneous.....	---	5.00

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.

### LIST OF FEES AND DEPOSITS (SUBJECT TO REVISION)

#### Enrollment Fees and Deposits

(Payable at Time of Registration)

By all students:	
Tuition (auditors pay same fees as other students):	
Regular students (carrying over 5 units).....	\$6.50
Limited students (carrying 5 units or less) per unit.....	2.50
Materials and service:	
Regular students.....	4.00
Limited students per unit.....	.50
General service deposit (unexpended portion is refunded).....	3.00
Personnel examination (new students only).....	2.00
(Limited students and graduate students exempted)	
Student activity fees (not required by the State):	
Regular students.....	6.00
Limited students.....	2.00

#### Miscellaneous Fees and Deposits

(Fees Payable When Service Is Rendered)

Change of program.....	\$ .50
College Bulletin (free to prospective students).....	.35
Duplicate library card.....	.25
Duplicate registration book.....	.50
Evaluation of transfer records for advanced standing.....	2.00
Fundamentals test.....	.50
Late filing of registration book.....	1.00
Late registration.....	1.00
Transcript of record (1st copy free).....	1.00

#### Graduation Fees

State Teaching Credentials (each credential).....	\$3.00
Diploma.....	1.00

The credential fee is collected through the college by cashier's check or post office money order made payable to the State Department of Education.

## GENERAL REGULATIONS

### INFORMATION

All inquiries relative to the college should be directed to the Registrar's office.

### CLASSIFICATION

*Full-time students* are those who are registered in more than five units of work. They are expected to carry a minimum of 12 units unless excused.

*Limited students* are those who, for acceptable reasons, have been permitted to register for five or fewer units of work.

*Class.* Students who have completed 0 to 29 units of work are classified as freshmen; 30 to 59 units as sophomores; 60 to 89 units as juniors; and 90 or more as seniors.

### 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.

The grade E is recorded for work which is of low order but which may be made passable. If the work is raised to passing level by the close of the next semester, the grade is changed to D; otherwise it is changed automatically to F.

The grade I is recorded for work of high order but which is incomplete for an acceptable reason. To change an I to another grade, the work must be completed within the next semester; otherwise it is changed to F.

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 number of grade points a student has earned in a subject is determined by multiplying the number of points he has received by the number of units allowed. The grade point average is determined by dividing the grade points earned by the number of units attempted. Courses in which the student received an I or Cr. or W are disregarded in computing grade point averages. A student must earn at least a C average in all work undertaken at the college to qualify for a diploma or a transcript of record with recommendation to another collegiate institution. If a course is repeated only the second grade earned is considered in the student's average.

### UNITS OF WORK, AND STUDY LISTS LIMITS

A unit of credit represents one hour of lecture or recitation combined with two hours of preparation per week through one semester, or three hours of laboratory or field work in the case of laboratory credit.

Students are not ordinarily permitted to enroll for more than 16 units \* for credit toward graduation. This constitutes a normal semester's program.

Certain exceptions to this rule exist. If during the preceding semester the student has carried at least 12 units \*: (1) If a grade point average of at least 1.5 was earned, 17 units \* may be carried for credit toward graduation; and (2) if a grade point average of 2.0 (B) was earned, 18 units \* may be carried.

Any course in which a passing grade is earned may be used in satisfying pattern requirements, even though credit for the course is in excess of the units which may be credited for graduation.

Exceptions to the above regulations may be secured only through a petition to the Scholarship Committee.

No student may register for less than 12 units without the approval of the Dean of General Education or the Dean of Professional Education.

\* In addition to required physical education courses.



## PROBATION AND DISQUALIFICATION

### Probation

Any student whose scholarship record shows a cumulative deficit of 12 or more grade points below a C average for all work undertaken in the college will be placed on probation. A limited student will be placed on probation if his cumulative deficit below a C average equals or exceeds the average number of units carried per semester. Probationary status may be continued provided that the student does not add further toward his grade point deficiency.

### Disqualification

Any probational student whose scholarship falls below an average grade of C in any single semester is disqualified for further attendance at the college. A scholarship record below a D average for any single semester also disqualifies a student.

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

## WITHDRAWALS FROM CLASS

Forms for withdrawal from class may be obtained at the Registrar's office. If a student withdraws from class during the first seven weeks of a semester, a grade of W will be recorded upon his permanent record for each class which he has dropped. If he withdraws during the remainder of the semester, either an I or an F will be recorded unless a grade of W is approved by the instructor and the proper dean. A grade of I automatically becomes an F unless the work is completed by the end of the next semester of attendance.

## TRANSCRIPTS OF RECORD

Students may secure one transcript of record without fee. Thereafter, each request for transcript should be accompanied by the fee of \$1. Once a student has matriculated in this college, transcripts from other schools will not be returned, or copies of them made. No fees are charged for transcripts required for military purposes.

Transcripts in the possession of students are to be regarded as unofficial records.

## ELIGIBILITY FOR DIRECTED TEACHING

No student shall be eligible for directed teaching (Education 116) who has not completed 75 units, been admitted to Teacher Education, and whose entire record, as well as his record for the preceding semester, does not average at least a 1.2 grade.

## THE HONORS GROUP

All students who at the end of the sophomore year have attained a grade-point average of 2.5, and such others as have attained a high average in the department in which their major is selected, and who have received the recommendation of that department and the consent of the Committee on Honors, may if they so elect, constitute an honors group, for special treatment in their major subject.

Such students, so far as the facilities of the department and the best interests of the students under its charge allow, shall be treated as befits their individual needs and as their individual capacities warrant. They shall be eligible to enroll in honors or special study courses, although credit in such courses shall be limited to 5 units a semester. They shall not be held to regular attendance in the established courses of their departments if, in the opinion of the instructor, the course requirements can be met through special assignments and examinations or by satisfactory performance in the regular examinations in the course. With the consent of the major department, requirements concerning minors and specific courses or sequences in the major may be set aside. Each honor student shall be assigned to a member of his major department for advice and direction.

Students in the honors group who fail to take advantage of the opportunities there offered may at the end of any semester be transferred by the department to the general course. Students in the general course who show unusual capacity, upon recommendation of the department and the Committee on Honors, may at the end

of any semester, be transferred to the honors group if such transfer appears practicable.

Students who wish to apply for entrance in the Honors Group may do so by filling out cards to be obtained from their major departments. The applications should be filed with the chairman of the major department not later than a week after registration opens. Units earned by students doing individual study under this plan will be recorded under the symbol 166 and will be subject to the formulated rules dealing with limitations of student load.

## THE DEGREE WITH HONORS AND WITH DISTINCTION

Upon recommendation of the Committee on Honors, graduation with honors shall be granted to the upper 10 per cent of the graduating class. Each department shall determine which students it will recommend for distinction in the major field at graduation, and report its recommendation to the Committee on Honors for transmission to the faculty.

## EXAMINATIONS

No final examinations shall be given to individual students before the regular time. 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 first semester following that in which the incomplete was given. No exception shall be made to this rule without the approval of an academic 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.

## EXTENSION 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 student's 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 12 units.



## THE BACHELOR OF ARTS DEGREE

### GENERAL REQUIREMENTS FOR THE BACHELOR OF ARTS DEGREE IN TEACHER EDUCATION AND IN LIBERAL ARTS

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,
- (2) the Liberal Arts curricula.

With slight variations in definition, many of the basic requirements are the same.

A minimum of 120 units of college work, representing a four-year course, is required for the Bachelor of Arts Degree. At least 30 units must be earned in this college, and not less than 24 of these residence units must ordinarily be taken with the rank of senior. Not fewer than 12 units of this work must be completed during a single semester; or in lieu of this at least 16 units must be completed in not less than two consecutive summer sessions. At least a C average in scholarship must be maintained in the major and in all work applied toward the degree.

### CREDIT GRANTED FOR MILITARY SERVICE

Six units of lower division elective credit will be granted to students who have served in the armed forces of this country upon the completion of the prescribed basic training program. Documentary evidence bearing the signature of the proper commanding officer must be filed before credit will be accorded to the student.

Additional units of credit will be granted to students who can document the fact that they have completed officer's or other specialized training, and have been assigned to active military duty.

### SUBJECT MATTER REQUIREMENTS IN THE LOWER DIVISION

	Units
Physical Education	2
Health Education 1 or 2	2
English	6
Psychology	3
Foreign Language (not required in the teacher education or general engineering curricula)	10
Mathematics A and B, 4 units, or high school algebra and geometry	0-4
Social Sciences	12
Natural Sciences	12
Electives to make total of 60 units, including lower division preparation for the major and minor.	

### Explanation of Lower Division Requirements

#### English

This requirement may be satisfied either in the freshman year or in the sophomore year. Courses are to be chosen from the following: English 1A, 1AA or 1B and 11, 12, 13, 14, 15, 16, 50A, 50B, 52A, 52B, 56A, 56B.

#### Psychology

Psychology 1A may be completed at any time in the lower division.

#### Foreign Languages

At least 10 units in one foreign language are required in the lower division except that no language is required in teacher education and engineering. No degree credit is given for only the beginning college semester of a foreign language.

High school work completed with grade of C or better may meet the foreign language requirement in whole or in part. Each year course is counted in satisfaction of 3 units of this requirement. Three years of foreign language in high school will satisfy the college requirement in foreign language. If two or more years have elapsed since the completion of a high school course in any foreign language the final year of

the course may be repeated for college degree credit but not for additional credit in meeting the language requirement.

#### Social Sciences

Twelve lower division units chosen from two or more departments in the Social Science Division are required.

High school semester courses not to exceed two such courses in the fields of history, political science, sociology, and economics taken with grades of B or better may be used in satisfying 3 units of the social science requirement provided they are taken in the senior year.

#### Natural Sciences

Twelve lower division units chosen from courses representing each of the following groups are required:

- (a) Biology 1 or a year course in high school or college biology, botany, physiology or zoology.
- (b) Physical Science 1A or 1B or a year course in high school or college physics or chemistry.
- (c) Lower division courses to meet the natural science requirement must be taken from the following lists and must include one of the college or high school laboratory courses marked with an asterisk: Astronomy 1, 2, 9; Bacteriology 1\*; Biology 1, 10A-10B\*; Botany 2A,\* 2B,\* 4; Chemistry 1A,\* 1B,\* 2A-2B,\* 7-8\*; Geography 1 or 3 (only one course may be counted toward requirement); Geology 1A, 1B,\* 2A, 2B; Physical Science 1A, 1B, 10; Physics 1A-1B,\* 2A-2B, 3A-3B,\* 1C-1D,\* 54; Physiology 1A, 1C\*; Zoology 1A,\* 1B,\* 8,\* 20.

A high school course in botany, chemistry,\* physics,\* physiology, zoology, or advanced biology taken in the senior year with grades not lower than B may be used in satisfying 3 units of the 12 unit natural science requirement. These courses may be counted as meeting local laboratory requirement (asterisk) if completed in junior or senior year with grade of C or better.

#### Mathematics

High school elementary algebra with grade of at least C is required or completion of Mathematics A. High school plane geometry with grade of C or better is required or completion of Mathematics B.

#### Lower Division Preparation for the Major

See description of requirements for teaching majors in page 20. 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 49-117).

#### Lower Division Preparation for the Minor

See description of requirements for liberal arts minors on page 18 and for teaching minors on page 21.

#### Numbering of Courses

Courses numbered 1 through 99 are in the lower division, those numbered 100 through 199 are in the upper division, and those numbered 200 or over are on the graduate level.

### SPECIFIC UPPER DIVISION REQUIREMENTS FOR THE A.B. DEGREE IN LIBERAL ARTS

The liberal arts curricula lead to the Bachelor of Arts Degree with majors in art, chemistry, commerce, economics, English, French, general engineering, geography, history, mathematics, music, physical science, physics, social science, Spanish, speech arts, 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.



## Subject Matter Requirements in the Upper Division

Political Science 101	2 units
Minor (minimum in upper division courses)	9 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. If a student is approaching upper division standing, he may carry sufficient lower division units to complete the required minimum of 60 and carry upper division units for the remainder of his study load. Upper division credit will be allowed for such courses.

## Explanation of Requirements

## Examination Requirements in the United States Constitution and American History, Institutions, and Ideals

Each student of a State college to qualify for graduation shall demonstrate competence in the United States Constitution and American history, institutions and ideals, by passing satisfactorily a comprehensive examination on these fields prepared and administered by the college. Students transferring from other institutions of collegiate grade who have already met this requirement may have this examination waived.

This examination ordinarily will be held during the second semester of the junior year. The following courses are recommended to assist in the preparation for the examination: History 17A-17B, Political Science 101 or its substitute courses, and an upper or lower division course in American literature.

## Political Science 101

History 171A-171B or 172A-172B will be accepted as substitutes for this requirement.

## Minor

Minors must be established in one of the following fields: anthropology, art, botany, chemistry, economics, education, English, foreign language, geography, geology, history, journalism, mathematics, music, philosophy, physics, political science, psychology, sociology, speech arts, and zoology.

A minor consists of at least 15 units of work completed in one of the above fields of study. At least nine of these units must be earned in upper division courses during junior or senior years. The entire requirement for a minor may be met with upper division courses provided these courses have no lower division prerequisites. Prerequisites for each course are listed among the course descriptions on pages 49 to 117.

## Minor in Education

A student who desires to satisfy the undergraduate requirements for the general secondary teaching credential will minor in education. He should include in his program a major in a subject or field of subjects usually taught in high school and a minor in the field of education. In order to conform to the usual university requirements, this minor should include Education 102A-102B (or Education 130, and Psychology 102), and Education 115A-115B. Consultation with the Dean of Education is recommended.

## Majors

The specific requirements for each major are listed at the beginning of each departmental division among the description of courses. (See pages 49 to 117.) 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.

## Professional and Preprofessional Courses

See pages 23 to 47.

## The General Major

The general major of 36 upper division units must be chosen from three departments with not more than 15 units from any one department allowed. A minimum

of a year course in each department must be completed in the lower division as foundation for upper division work in the general major. This comprehensive major may be arranged to include minor requirements.

The general major is planned for students who are preparing for law, journalism, library work, social work, or for any other vocation requiring a background of general training. It is available also to certain students who want a general education and who can present satisfactory reasons for not specializing in any field. When the general major is not a part of a four-year curriculum published in the college bulletin the tentative program of the student should be planned in consultation with the Dean of the Upper Division and approved, revised, or rejected by the chairmen of the departments represented in the major.

## BACHELOR OF ARTS DEGREE IN TEACHER EDUCATION

San Diego State College is authorized by the State of California to recommend students for the teaching credentials listed below. To be recommended, students must complete, or have completed, the A.B. Degree in one of the curricula offered for teachers.

<i>The credential</i>	<i>Subjects and grades for which it is valid</i>
General Elementary	All grades through the eighth.
Kindergarten-Primary	Kindergarten through third.
General Junior High	All subjects in grades seven, eight and nine in all elementary or secondary schools.
Special Secondary in Art	Art in all grades of the public schools.
Special Secondary in Business Education	Business education subjects in all grades of the public schools.
Special Secondary in Music	Music in all grades of the public schools.
Special Secondary in Physical Education	Physical education in all grades of the public schools.
Special Secondary in Speech Arts	Speech in all grades of the public schools.
Administration in Elementary Education	Authorizes for certificate to administer and supervise elementary schools as superintendent, deputy superintendent, assistant superintendent, principal, supervisor, or curriculum coordinator in a county.
Supervision in Elementary Education	Authorizes for certificate to supervise or coordinate instruction in elementary schools in a county.

For special bulletin in regard to the following two credentials, write to the Registrar.

General Secondary	All subjects in the public schools in grade 7 and above.
Special Credential in Correction of Speech Defects	Correction of speech defects in the public schools.

## Combination of Credentials

Students who seek more than one teaching credential must complete in full the curriculum for each, with only such exceptions as are indicated in the statement of requirements. For each credential in addition to one, at least 12 additional units must be earned. These 12 units may be taken in non-professional courses if all basic curriculum requirements have been satisfied.

A combination of the elementary school credential and the junior high school credential may be secured by completing the requirements for the elementary school credential and the following additional requirements:

- A teaching major
- Education 100B
- Three units of directed teaching, or equivalent, in a junior high school
- Education 115B
- A minimum total of 132 units

A candidate for either the general elementary credential or the kindergarten-primary credential may secure the other credential subsequently or concurrently by taking 12



additional units. Four of these units shall be in directed teaching (Education 116) at the new level and the remainder as prescribed by the Director of Elementary Education.

#### Lower Division Requirements

Students in teacher education curricula shall complete the lower division requirements for the A.B. Degree as indicated on page 16. Additional pattern requirements are outlined under each specific curriculum on following pages.

High school work and examination equivalents will excuse a student from pattern requirements but will not give college credit for foreign language, science, social science and piano.

#### Upper Division Requirements

##### Minimum Units

A minimum of 40 units in upper division courses must be completed; 30 of these shall be earned after all lower division requirements have been met.

##### Credit Limitations

A maximum of 40 units of credit in any one subject matter field or in education courses may be applied toward the requirements of the A.B. Degree.

##### Examination Requirement in the United States Constitution and American History, Institutions, and Ideals

Each student of a State college to qualify for graduation shall demonstrate competence in the United States Constitution and American history, institutions and ideals, by passing satisfactorily a comprehensive examination in these fields prepared and administered by the college. Students transferring from other institutions of collegiate grade who have already met this requirement may have this examination waived, except for students who are to receive a teaching credential. These students must have demonstrated competence by having successfully completed a course in the United States Constitution in a California institution of collegiate grade or by having passed in California an authorized examination in this field.

This examination ordinarily will be held during the second semester of the junior year. The following courses are recommended to assist in the preparation for the examination: History 17A-17B, Political Science 101 or its substitute courses, and an upper or lower division course in American literature.

##### Preparation for Graduate Work

Students who take the A.B. Degree with a special credential and who contemplate doing graduate work for a master's degree in an academic field or for the general secondary credential, will find it advantageous to use their electives to provide a foundation for that work.

#### Majors and Minors

All teaching curricula require one major and one minor.

Education shall be the major for the kindergarten-primary and general elementary school credentials. Its requirements are outlined under those curricula. It is recommended that the minor for these credentials be chosen from the academic fields of English, foreign language, mathematics, science or social science. A second minor, though not required, may be chosen from one of these fields or from art, music, physical education or speech arts. Students taking an elementary credential in combination with a special secondary credential may use the special major for their minor in elementary education.

#### Teaching Major for Junior High School and Special Secondary School Credentials Defined

A teaching major for the junior high school credential consists of a minimum of 24 units of which a minimum of 18 units must be in the upper division. An average of C in scholarship is required in all upper division courses in the field of the teaching major. Teaching majors may be established in the following fields: English, foreign languages, general sciences, mathematics and social sciences (anthropology, economics, geography, history, political science, sociology). A teaching major in the special secondary credential curricula of art, business education, music, physical education, and speech arts ranges from 24 to 40 units, depending upon the curriculum.

A *Teaching Major in English* shall include English 1B and 9 elective units of lower division work and 18 units of upper division work. This credit must include 3 units in American Literature (either lower or upper division) and 3 units in Shakespeare. Recommended: English 13 and 192.

A *Teaching Major in General Science for the Junior High School Credential* shall include a minimum of 24 units, not less than 18 of which are upper division, including a college year course in a biological science, a year course in high school or college physics and a concentration of 12 units, at least 6 of which are upper division, in one major subject (botany, chemistry, physics, zoology). See definition of teaching majors.

A *Teaching Major in Social Science* shall include a minimum of 24 units not less than 18 of which are upper division, including a year course in modern American history and a concentration of 12 units, at least 6 of which are upper division, in one major subject (anthropology, economics, geography, history, political science, sociology). See definition of teaching majors.

#### Teaching Minor Defined

A teaching minor consists of 15 units in a given field, of which 9 or more 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 (anthropology, economics, geography, history, political science, sociology), physical education, and speech arts. (See requirement above for elementary school credentials).

#### A Teaching Minor in English

Candidates for the teaching minor in English must show credit in English 1B and 3 elective units of lower division work; and in 9 elective units in upper division English. This credit must include 3 units in American literature, taken either in lower division or upper division. Credit in journalism and speech arts may not be used to fulfill the requirements for the English minor. Recommended: English 13.

#### A Teaching Minor in Music

Candidates for the teaching minor in music are required to take music aptitude tests at the time the minor is chosen and to enroll in at least one music activity each semester. In special cases this requirement may be waived by permission of the faculty of the Music Department.

Applicants for music minors must maintain a grade average of C in all music courses. All students must show credit for Music 1A or clear this requirement by examination. Music 7A is required of all candidates for the elementary credential. In the lower division, with the proper regard for course sequences, 6 units may be chosen from the following courses: Music, 1A-1B-1C-1D, 2A, 3A, 4A-4B, 6A, 8A-8B, 16, 17, 18, Aesthetics 1A-1B. Nine units of upper division music are required, not more than two of which may be selected for credit from the activity courses (Treble Clef, orchestra, etc.).

#### A Teaching Minor in Physical Education

Women—Candidates for a teaching minor in physical education must show credit for 9 units in the lower division including the following courses: Physical Education 1A, 1B, 1C, 1D, 53, and 4½ units of electives. In the upper division not less than 9 units must be chosen from Physical Education 153, 156A-156B, 161, 164 and 170. Students wishing to minor in Physical Education should have the advice of the Physical Education Department in selecting electives.

Men—Candidates for a teaching minor in physical education must show credit in the lower division for Physical Education 1A, 1B, 1C, 1D, 53, 72, and 2 units in sports and athletics. In the upper division, Physical Education 154, 156A-156B, 170, at least 1 unit in sports and athletics, as well as 2 units in Education 100B-PE are required.

#### Admission to Teacher Education

Students who expect to become teachers should apply for admission to teacher education during the first semester of the sophomore year. Students entering the college at the end of the sophomore year will apply at the beginning of the junior year. No courses in education may be taken until admission is granted; any exception to this rule must have the approval of the Dean of Education. *Admission to the college*



does not guarantee that the student will be admitted to teacher education. The following requirements must be met for admission to teacher education curricula:

1. A satisfactory score in a college aptitude test taken at the college. (See college calendar for dates of test.)
2. Evidence of satisfactory ability in arithmetic, handwriting, reading and spelling indicated by having passed the fundamentals test. (See college calendar for dates 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 that 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 or more of a given curriculum, or its equivalent, and of subsequent work with a grade point average of 1.2 or better. (See special bulletin for general secondary.)
7. The student needs also to be approved by an interviewing committee of the college faculty. In its evaluation the committee will consider the following factors established by the State Board of Education: intelligence, scholarship, professional aptitude, personality and character, speech and language usage, and many-sided interests.

#### Transfer Students

Students who have completed two or more semesters of work in another college, upon transferring to San Diego State College, should make application for admission to teacher education as soon as they enroll in the college. It will be advantageous for transfer students to present themselves for the necessary tests given during the orientation period preceding enrollment in the college.

#### Advanced Standing in Teacher Education

A minimum of 6 units in education is required at this college. The college requires an opportunity to pass upon the effectiveness of a candidate's teaching ability either through a course in directed teaching or by observation of teaching in the field. After an interval of 5 years, courses in education are reevaluated and subject to deduction in credit, in light of such new requirements as may have been put into effect and changes in educational procedures. Students formerly in attendance will not be considered to be working in the 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 in order to be credited toward meeting degree requirements.

## PROFESSIONAL AND PREPROFESSIONAL CURRICULA

Professional and preprofessional courses, ranging in length from two years to three and four years of collegiate work, are offered. The following curricular outlines meet typical requirements for admission to professional schools of law, medicine, dentistry, nursing, pharmacy, optometry, social work, public service, agriculture, and engineering. The student should modify these suggested outlines of study whenever the peculiar requirements of the professional school of his choice makes it seem advisable for him to do so.

The degree curricula in liberal arts may be modified to include the course outlines which follow. For a complete statement of the requirements for the junior certificate and the degree see page 18 and following pages.

### CURRICULA LEADING TO TEACHING CREDENTIALS

All candidates in teacher education curricula should observe carefully the requirements for admission to teacher education and be prepared to meet them at the end of the sophomore year. Students in other colleges who contemplate transferring to San Diego State College should arrange their programs so as to meet the requirements of their particular curriculum as early as possible. See college calendar for dates when the fundamentals test will be given. See page 21 in this bulletin for requirements for admission to teacher education.

#### A.B. Degree with General Elementary or Kindergarten-Primary Credential

One teaching minor is required. See page 20 for statement

Freshman Year	Units for	
	General Elem.	Kdg.-Primary
<i>First Semester</i>		
Art 6A, Design	2	2
Physical Science 1A, Introduction (if H. S. physics, substitute other science)	3	3
English 1A, 1AA, or 1B, Freshman English	3	3
Health Education 1 or 2	2	2
Physical Education, Freshman Activities	1	1
Elective (advisable to start social science; see page 16 for requirement and also for natural science and minor)	6	6
<i>Second Semester</i>		
Art 6B, Design	2	2
English 11, 12, 13, 14, 15 or 16	3	3
Physical Science 1B (if H. S. chemistry, substitute)	3	3
Psychology 1A (or in Semester I)	3	3
Physical Education	1	1
Elective (social science or minor)	3-5	3-5
	31-33	

#### Sophomore Year

<i>First Semester</i>		
Geography 1, Elements (natural science credit)	3	3
Music 1A, Musicianship—Fundamentals of Music	3	3
Art 61A, Crafts in Elementary Schools	2	2
Music 28A, Piano (or the equivalent by examination, but without credit. May be taken in junior year.)	1	1
Physical Education, Sophomore Activities	1	1
Biology 1, Survey of Biology (If no high school laboratory, take Biol. 10A-10B or Botany 2A) (Not required if H. S. biology in junior or senior year)	3	3
Electives (for social science, natural science or minor)	3	3
(Prepare for examination in American history, institutions and ideals. History 17A-B and American Literature are recommended in freshman or sophomore year.)		



## Second Semester

	Units for General Elem.	Units for Kdg.- Primary
Geography 2, Regions (social science credit)	3	3
Music 7A, Music Materials for the Elementary School	3	3
P.E. 53, Physical Education in the Elementary School	2½	2½
Music 28B, Piano (or the equivalent by examination)	-	1
Speech Arts 1A, Fundamentals	-	3
Electives (complete social science, natural science or minor)	6-9	4

29-32

## Junior Year

Students transferring from another curriculum in lower division or from another college or junior college may interchange this semester with semester II of the senior year. (Forty units of upper division work are needed.) The Education Department will probably find it necessary to ask some students who have met all requirements to defer entering practicum until the second semester of the junior year in order to equate class size. Those who defer entering the practicum should use this semester to

1. Complete lower division requirements in art, music, Physical Education 53, natural science, social science and others as needed.
2. Complete minor requirements.
3. Meet requirement for American History and U. S. Constitution.
4. Elect Education 102A or B if needed.

## First Semester Practicum

	Units	Units
Education 102A, Measurement in Education or		
Education 102B, Child Growth and Development	3	3
Education 147, Education Practicum-Primary Level	12	12
Health Education 151	2	
Methods in Primary Reading	2	
Elementary School Methods, including Children's Literature	2	
Elementary Music Education	1	
Elementary Art Education	1	
Mental Hygiene and Speech	2	
Directed Teaching	2	

## Second Semester Practicum

	Units	Units
Education 102A or 102B	3	3
Education 148	12	8
Elementary Arithmetic Education	2	
Elementary Social Studies and Science Ed., including materials of audio-visual instruction	2	
Elementary Art Education	1	
Elementary Music Education	1	
Educational Psychology (learning process, including theory of audio-visual education)	2	
Additional 4 units for General Elementary, but not Kindergarten-Primary		
Language Arts	2	
Directed Teaching	2	
Education 116, Directed Teaching, primary grades	-	3

## Senior Year

## First Semester

	Units	Units
Education 116	7	4
Ed. 146, Kindergarten-Primary Practicum	-	4
Ed. 115A (or in second semester)	2	2
Elective	3	3

## Second Semester (and summer session if needed)

	Units	Units
Political Science 101	2	2
Electives to complete one minor and to equal total for degree	14-16	14-16
Total		120 units

## Summary

	Units for General Elem.	Units for Kdg.- Primary
Art 6A-B, 61A	6	6
Educ. 102A-B, 115A, 116, 146, 147, 148	37	37
English	6	6
Speech Arts	-	3
Health Education 1 or 2, 151	4	4
Physical Education 1A, B, C, 53	4	4
Music 1A, 7A, 28A-B	6	8
Natural Sciences (including Geog. 1)	12	12
Political Science 101	2	2
Psychology 1A	3	3
Social Science (including Geog. 2)	12	12
Electives (including minor)	28	23
Total	120	120

## A.B. Degree With General Junior High School Credential

(See statements on page 20 about teaching majors and minors.) Students who expect to secure the Master of Arts Degree, or the general secondary credential, should complete 24 upper division units in the departmental major instead of the 18 upper division units required for this credential. See statement on page 19 regarding combinations of this with other credentials.

## Freshman Year

	Units
<b>First Semester</b>	
Biology 1 (see p. 17)	3
English 1A, or 1AA, or 1B	3
Geography 1, Elements (Natural Science)	3
Physical Education, Freshman Activities	½
Health Education 1 or 2, Health and Social Adjustment	2
Electives to meet Lower Division requirements	3

## Second Semester

	Units
Physical Science 1A or 1B (see p. 17)	3
English 13	3
Geography 2, Regions (Social Science)	3
Physical Education, Freshman Activities	½
Electives to meet Lower Division requirements	6
	30

## Sophomore Year

## First Semester

	Units
Physical Education, Sophomore Activities	½
Psychology 1A, General	3

## Second Semester

	Units
Physical Education, Sophomore Activities	½

## Either Semester

	Units
Social Sciences (see p. 17)	3
Laboratory Science (see p. 17)	3-4
Electives to meet Lower Division requirements	22-23

30



## Junior Year

## First Semester

Education 115B, Secondary Education	3
Education 102C, Psychology of Adolescence	3
Political Science 101, American Institutions (or substitute)	2

## Second Semester

Education 102D, Measurement and Evaluation in Secondary Education	2
Education 130, Educational Psychology	2
Education 116, Directed Teaching	3

## Either Semester

Education 100B, Methods in Major Subject	2
Health Education 151, Health Education	2
Electives, including major and minor (for the year)	12

## Senior Year

Education 115A, History and Philosophy of Education	2
Education 116, Directed Teaching	3
Electives, including major and minor (for the year)	24

## Summary

Education 100B, 102C, 102D, 115A, 115B, 116, 130	20
English	6
Health Education 1 or 2; 151	4
Natural Sciences	12
Physical Education	2
Political Science 101	2
Psychology 1A	3
Social Sciences	12
Electives, including teaching major and minor	59

120

## A.B. Degree With Special Secondary 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 schools.

## Lower Division

Aesthetics 50, History and Appreciation of Art	2
Art A, Freehand Drawing and Perspective (or equivalent)	2
Art 6A-6B, Design	4
Art 14A, Lettering	2
Art 61A, 61B, Fine and Industrial Arts, Elementary Crafts	4
English (see p. 16)	6
Health Education 1 or 2, Health and Social Adjustment	2
Natural Sciences (see p. 17)	9-12
Physical Education, Freshman and Sophomore Activities	2
Psychology 1A, General	3
Social Sciences (see p. 17)	9-12
Electives, including additional art for major and courses for teaching minor	9-15

60

## Upper Division

Aesthetics 150, Appreciation and History of Art	2
Art 106A-106B, Printmaking	4
Art 112A-112B, Design and Composition	4
Art 116A, Advanced Painting	2
Art 152A (unless 52A was taken in lower division), Stage Design	0-2
Art 195, Home Decoration	2
Electives in U. D. Art	3-5
Education 115A, History and Philosophy of Education	2
Education 115B, Secondary Education	3
Education 102C, Psychology of Adolescence	3
Education 102D, Measurement in Secondary Education	2
Education 130, Educational Psychology	2
Education 100B-A, Methods in Art	2
Education 116, Directed Teaching (4 units in special field)	6
Education 119, Art in the Elementary School	2
Health Education 151	2
Political Science 101, American Institutions (or substitute)	2
Electives, including additional art and teaching minor	13-17

60

## Summary

Aesthetics 50 and 150	4
Art major	40
Education	19
English	6
Health Education 1 or 2 and 151	4
Natural Sciences	12
Physical Education	2
Political Science 101	2
Psychology 1A	3
Social Sciences	12
Electives, including teaching minor	15

120

## A.B. Degree With Special Secondary 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.

## Accounting and Secretarial Subfields

## Lower Division

Economics 1A-1B, Principles	6
Commerce 14A-14B, Accounting	6
English 8, Business English	3
Geography 10A-10B, Economic Geography	6
Natural Sciences (see p. 17)	9-12
Physical Education, Freshman and Sophomore Activities	2
Health Education 1 or 2, Health and Social Adjustment	2
Speech Arts 1A, Fundamentals of Public Speaking	3
Psychology 1A, General	3
Secretarial Training A, Business Mathematics	1
Secretarial Training 1A-1B, Typewriting	6
Secretarial Training 5A-5B, Shorthand	10

60



## Upper Division

	Units
Health Education 151	2
Secretarial Training 3A, Office Methods and Appliances	3
Commerce 18A-18B, Commercial Law	6
Economics 100, or 102 or 111 or Commerce 123	3
Commerce 121, Business Administration	3
Upper Division Accounting	6
Education 100B-B, Methods in Accounting	2
Education 100B-BE, Objectives and Curricula in Business Education	2
Education 102C, Psychology of Adolescence	3
Education 102D, Measurement and Evaluation in Secondary Education, Methods of	2
Education 115A, History and Philosophy of Education	2
Education 115B, Secondary Education	3
Education 116, Directed Teaching	6
Education 130, Educational Psychology	2
Education 100B-SS, Teaching Secretarial Subjects	2
Education 163	2
Education 165, Methods in Merchandising	2
Political Science 101, American Institutions (or substitute)	2
Minor	9
Examination in American History, U. S. Constitution, etc. (see p. 18).	60

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

Students intending to become applicants for this credential must show evidence of musical ability, before entering the course. They must be able to play artistically upon the piano, music of the grade of the simpler *Songs Without Words* of Mendelssohn or else possess a corresponding degree of proficiency in voice or an orchestral instrument. No credit is given to music majors for the basic courses of Music 1A and Music 7A, but if a deficiency exists in the field of general musicianship, the student will be required to take either or both of these courses without credit.

All music majors are required to enroll in two musical activities each semester. In special cases this requirement may be waived by petition to the Music Department. All students are required to pass examinations in applied music in order to receive credit. No credit is allowed to majors in voice or orchestral instruments for any work in piano which is below the level of artistic hymn playing.

Applicants for the Special Secondary Credential in Music must maintain a grade average of C or better in music courses.

All students majoring in music are required to pass a comprehensive examination in this field during the senior year.

This course leads to the A.B. Degree with a Special Secondary Credential in Music which will authorize the holder to teach music in the elementary, junior and senior high schools of the State.

A maximum of 40 units in Music may be used toward the A.B. Degree. Of these 40 units a maximum of 3 may come from the field of musical activities: band, choir, chorus, glee clubs and orchestra.

## Freshman Year

## First Semester

English 1A or 1B	3
Health Education 1 or 2, Health and Social Adjustment	2
Social Sciences (see p. 17)	3
Aesthetics 1A, Survey of Music	2
Music 1B, Music Reading and Ear Training	2
Music 18A, Individual Study of Piano or Organ	1
Physical Education	1
	13½

## Second Semester

English 11, 12, 13, 14, 15, or 16	3
Natural Sciences (see p. 17)	3
Aesthetics 1B, Survey of Music	2
Music 1C, Advanced Music Reading and Ear Training	2
Music 3A, Woodwind Instrument Class	1
Music 18B, Individual Study of Piano or Organ	1
Physical Education	1
Electives	3

## Sophomore Year

## First Semester

Music 1D, Advanced Music Reading and Ear Training	2
Music 2A, String Instrument Class	1
Music 4A, Elementary Harmony	3
Music 18C, Individual Study of Piano or Organ	1
Natural Sciences	3
Social Sciences	3
Physical Education	1
Elective	1

## Second Semester

Music 4B, Elementary Harmony	3
Music 6A, Brass Instrument Class	1
Music 17A, Individual Study of Voice	1
Music 18D, Individual Study of Piano or Organ	1
Psychology 1A, General	3
Natural Sciences	6
Physical Education	1

## Junior Year

## First Semester

Health Education 151	2
Music 105A, Advanced Harmony and Composition	3
Education 117A, Music in Elementary School	2
Education 145, Organization and Administration of Music Education	2
Education 102C, Psychology of Adolescence	3
Education 115B, Secondary Education	3
Upper Division Minor and Elective	2

## Second Semester

Political Science 101, American Institutions (or substitute)	2
Music 105B, Advanced Harmony and Composition	3
Music 117B, Advanced Individual Study of Voice	1
Education 102D, Measurement and Evaluation in Secondary Education	2
Education 130, Educational Psychology	2
Upper Division Minor and Electives	5
Examination in American History, U. S. Constitution, etc. (see p. 18).	17

## Senior Year

## First Semester

Music 107A, Form and Analysis	2
Music 119, Instrumental Conducting	1
Music 117C, Advanced Individual Study of Voice	1
Aesthetics 102A, Music History	2
Education 116, Directed Teaching	6
Education 100B-MU, Music Education (see Education 127)	2
Music Activities as Prescribed by the Department	2



## Second Semester

	Units
Music 106A, Counterpoint	2
Music 117D, Advanced Individual Study of Voice	1
Music 120A, Vocal Conducting	1
Music 121A, Instrumentation	2
Aesthetics 102B, Music History	2
Education 116, Directed Teaching	3
Music Activities as Prescribed by the Department	1
Education 115A, History and Philosophy	2
<b>Summary</b>	<b>14</b>

## Summary

Health Education 1 or 2 and 151	4
Aesthetics 1A, 1B, 102A, 102B	8
Education 100-B-MU, 102C, 102D, 115A, 115B, 116, 117A, 130, 145	27
English	6
Upper Division Minor	9
Natural Sciences (including Geography 1)	9-12
Music 1B, 1C, 1D, L2A, L3A, 4A, 4B, L6A, L17A-B-C-D, or 117A-B-C-D, L18A-B-C-D, or 118A-B-C-D, 105A, 105B, 106A, 107A, 117A-B-C, 119, 120A, 121A, Music Activities	40
Social Sciences (including Geog. 2, and Hist.)	9-12
Psychology 1A	3
Physical Education	2
Electives	0-4
	<b>120</b>

## A.B. Degree With Special Secondary 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 majoring in Physical Education are requested to participate actively in at least one sport and two additional activities per year in order to secure adequate activity background for teaching.

## Lower Division

## MEN

Psychology 1A, Human Physiology	3
Zoology 1A, General (prerequisite for Zoology 8)	4
English	6
Health Education 1	2
Natural Sciences	3 or 5
Physical Education:	
1A-1B, 1C-1D	2
30, Physical Conditioning and Training	2
51, First Aid and Safety Education	2
53, Physical Education in the Elementary School	2½
72, Introduction to Physical Education	2
Sports and Athletics (as prescribed by the Department)	2
Psychology 1A, General	3
Social Sciences (see p. 17)	12
Speech Arts 1A, Fundamentals of Public Speaking	3
Zoology 8, Human Anatomy	3
Electives, including courses to meet minor requirements	8½
	<b>60</b>

## Upper Division

	Units
Education 100B-P.E.	2
Education 102C, Psychology of Adolescence	3
Education 102D, Measurement and Evaluation in Secondary Education	2
Education 115A, History and Philosophy of Education	2
Education 115B, Secondary Education	3
Education 116, Directed Teaching	6
Education 130, Educational Psychology	2
Health Education 151	2
Political Science 101, American Institutions (or substitute)	2
Physical Education:	
154, Organization and Administration of Physical Education	3
155, Applied Anatomy and Kinesiology	3
156A-156B, Sports Methods	4
162A-162B, Gymnastic Procedures and Techniques	4
170, Recreational Leadership	2
177, Individual Program Adaptation	3
Sports and athletics (as prescribed by the department)	2
Upper Division Minor and Electives	15
Examination in American History, U. S. Constitution, etc. (see p. 18).	
	<b>60</b>

## Summary

Education 100B-P.E., 102C, 102D, 115A, 115B, 116, 130	18-21
English	6
Health Education 1, 151	4
Speech Arts 1A	3
Natural Sciences (including Biology 10A-10B or substitute and Zoology 8 or 20)	12
Physical Education teaching major	33½
Political Science 101	2
Psychology 1A	3
Social Sciences	12
Zoology 114A	2
Electives, including minor	21½-24½
	<b>120</b>

## (A.B. Degree with Special Secondary Credential in P.E.)

## WOMEN

## Lower Division

Music 1A, Musicianship—Fundamentals of Music (or equivalent)	3
English	6
Health Education 2, Health and Social Adjustment	2
Natural Sciences (including Biology 10A-10B and Zoology 1A and Zoology 8 or Zoology 20 and Physical Science 1A or Chemistry 2A)	12
Physical Education:	
1A, Fundamental Skills	1½
1B, Folk Dancing	1½
1C, Rhythmic Skills	1½
1D, Team Sports	1½
3A, Modern Dance	1½
5A, Archery	1½
6A, Badminton	1½
7A, or 7B, Golf	1½
11A, Tennis	1½
51, First Aid and Safety Education	1
53, Physical Education in the Elementary School	2½
72, Introduction to Physical Education	2
Psychology 1A, General	3
Social Sciences (see p. 17)	12
Speech Arts 1A	3
Electives, including minor (recommended Psychology 1A and Art 61B)	9
	<b>60</b>



## Upper Division

	Units
Education 100B-P.E., Methods and Materials of Instruction	0-2
Education 102C, Psychology of Adolescence	3
Education 102D, Measurement and Evaluation in Secondary Education	2
Education 115A, History and Philosophy of Education	2
Education 115B, Secondary Education	3
Education 116, Directed Teaching	6
Education 130, Educational Psychology	2
Health Education 151, Health Education	2
Political Science 101, American Institutions (or substitute)	2
Physical Education:	
153, Principles and Administration of Secondary Physical Education	3
155, Applied Anatomy	3
156A-156B, Sports Methods	4
160, Teaching of Body Mechanics	2
161, Folk Dancing	2
164A-164B, Methods in Modern Dance	4
170, Recreational Leadership	2
177, Individual Program Adaptations	2
185, Techniques of Individual Sports	1
Electives, including minor	13
Examination in American History, U. S. Constitution, etc. (see p. 18).	60

## Summary

Music 1A	3
Education 100B-P.E. 102C, 102D, 115A, 115B, 116, 130	20
English	6
Health Education 2, and 151	4
Natural Sciences (including Biology 10A-10B, and Zoology 8 or 20)	12
Physical Education teaching major	30½
Political Science 101	2
Psychology 1A	3
Social Sciences	12
Speech Arts	3
Electives, including a minor	22½-24½

## A.B. Degree With Special Secondary Credential in Speech Arts

## Lower Division

Speech Arts 1A-1B or 1C-1D or 60	6
Speech Arts 55A-55B or 55C-55D	6
Speech Arts 63A-63B, 63C or 63D, Verse Choir	1
Natural Sciences	12
Social Sciences	12
Electives and Minor	8
Psychology 1A, General	3
Health Education 1 or 2, Health and Social Adjustment	2
English 1A or 1B, and 3 units from 50A-50B, 52A-52B, 56A-56B	6
Physical Education	2
Aesthetics 1A or 5	2
	60

## Upper Division

	Units
Health Education 151, Health Education	2
Education 100B-SA, Methods in Speech Arts	2
Education 102C, Psychology of Adolescence	3
Education 102D, Measurement and Evaluation in Secondary Education	2
Education 115A, History and Philosophy of Education	2
Education 115B, Secondary Education	3
Education 116, Directed Teaching	6
Education 130, Educational Psychology	2
Political Science 101, American Institutions	2
Minor	9
Speech Arts 155A-155B or 156A-156B	6
Speech Arts 163	3
Speech Arts 150, Phonetics	3
Speech Arts Electives	9
Electives to include 6 units from P. E. 164A or 12A; English 152A-152B; Eng. 110, 116B, 117A-B; or upper division courses offered in both English and Speech Arts	6
Examination in American History, U. S. Constitution, etc. (see p. 18).	60

## Summary

Aesthetics 1A or 5	2
Education 100B-SA, 102C-102D, 115A, 115B, 116, 130	20
English	6
Health Education	4
Natural Sciences	12
Physical Education	2
Psychology 1A	3
Social Sciences	12
Speech Arts and Related Fields	34
Political Science 101, American Institutions (or substitute)	2
Electives, including teaching minor	23
	120

## Special Secondary Credential in Correction of Speech Defects

This credential is granted only to students who can verify two years of successful teaching experience and who hold a valid California teacher's certificate, credential or life diploma of elementary or secondary school grade.

## Lower Division Requirements

Psychology 1A, General Psychology	3
Speech Arts 1A, Fundamentals of Public Speaking	3
Speech Arts 1C, Oral Interpretation	3
Elective in lower division Speech Arts	6

## Upper Division Requirements

Speech Arts 150, Phonetics	3
Psychology 118, Mental Hygiene	3
Education 179A-B, Nervous Speech Disorders	6
Speech Arts 212, Articulatory Disorders	3
Education 316, Directed Teaching	4



## PRE-AGRICULTURAL CURRICULA

The high school program should include the following subjects: elementary algebra 1 unit; plane geometry, 1 unit; algebraic theory, 1 unit; trigonometry,  $\frac{1}{2}$  unit; chemistry, 1 unit; physics, 1 unit; mechanical drawing, 1 unit; foreign language, 3 units in one language.

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

The following arrangement of courses is recommended:

Curriculum in Plant Science			
Freshman Year			Units
Physical Education	-----		1
Health Education 1 or 2	-----	1	
Chemistry 1A-1B	-----	2	5
Botany 2A-2B	-----	5	5
Physics 2A-2B	-----	4	4
Elective (Foreign language if not completed in high school)	-----	3	3
		2	3
			<hr/>
Sophomore Year		16½	15½

<b>Sophomore Year</b>			
Physical Education	1	1	
Economics 1A-1B	3	3	
Chemistry 7-8	3	3	
Geology 1A or 2A	3		
Bacteriology 1		4	
Zoology 1A	4		
Elective (Foreign language if not completed in high school)	3	5	
	16 $\frac{1}{2}$	15 $\frac{1}{2}$	

Curriculum in Animal Science		16½	15½
Freshman Year			
Physical Education	-----		
Health Education 1 or 2	-----	½	½
Chemistry 1A-1B	-----	2	--
Zoology 1A-1B	-----	5	5
Physics 2A-2B	-----	4	4
Geology 2B	-----	3	3
Elective	-----		3
	-----	2	--

<b>Sophomore Year</b>			
Physical Education	1	1	
Economics 1A-1B	3	3	
Chemistry 7-8	3	3	
Bacteriology 1	4		
Botany 2A	4		
Zoology 100		3	
Zoology 20 or 8		3	
Elective	2	3	
	16 $\frac{1}{2}$	15 $\frac{1}{2}$	

## PRE-DENTAL CURRICULUM

Candidates for a degree in dentistry should ascertain the entrance requirements of the dental college to which they expect to transfer and should make whatever changes in the following typical requirements that may seem desirable in satisfying the requirements of the dental college.

The high school program should include the following subjects: elementary algebra, 1 unit; plane geometry, 1 unit; chemistry, 1 unit; physics, 1 unit; foreign language, 3 units in one language.

The following arrangement of courses is recommended:

Freshman Year		Units	
Physical Education	1	1	1
Health Education 1 or 2	2	2	2
Chemistry 1A-1B	5	5	5
Physics 2A-2B	3	3	3
English	3	3	3
Psychology 1A	3	3	3
Foreign language (if needed to complete requirement)	0-5	0-5	0-5
Elective	0-2	0-2	0-2
		16½	15½

<b>Sophomore Year</b>			
Physical Education	1	1	
Chemistry 7-8	3	3	
Zoology 1A-1B	4	4	
Social Science Year Course	3	3	
Elective	5	6	
	15 $\frac{1}{2}$	16 $\frac{1}{2}$	



## PRE-ENGINEERING CURRICULUM

This curriculum is intended for students planning an intensive specialization in particular branches of engineering.

The high school program should include the following subjects: elementary algebra, 1 unit; plane geometry, 1 unit; algebraic theory, 1 unit; solid geometry,  $\frac{1}{2}$  unit; trigonometry,  $\frac{1}{2}$  unit; chemistry, 1 unit; physics, 1 unit; mechanical drawing, 1 unit.

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

## Mechanical, Electrical, Civil and Mining Engineering

## Freshman Year

	Units
Mathematics 3A-3B	3
Chemistry 1A-1B	5
Physics 1A-1B	3
Physical Education	$\frac{1}{2}$
Health Education 1 or 2	2
*Geology 1A or elective	4
Elective	3
	15 $\frac{1}{2}$

## Mechanical and Electrical Engineering

## Sophomore Year

Engineering 1A	3	—
Engineering 21	3	—
Engineering 22	—	3
Engineering 23	—	2
Mathematics 4A-4B	3	3
Mathematics 118 or 119	—	3
Physics 1C-1D	3	3
Physical Education	$\frac{1}{2}$	$\frac{1}{2}$
Elective	3	2
	15 $\frac{1}{2}$	16 $\frac{1}{2}$

## Civil Engineering

## Sophomore Year

Astronomy 3	—	2
Engineering 1A-1B	—	3
Engineering 21	3	3
Engineering 23	3	—
Mathematics 4A-4B	—	2
Physics 1C-1D	3	3
Physical Education	3	3
Elective	$\frac{1}{2}$	$\frac{1}{2}$
	3	3

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

## CURRICULUM IN GENERAL ENGINEERING

A four-year curriculum is available at San Diego State College leading to the A.B. Degree in General Engineering. The curriculum is designed to provide the student with the fundamentals of an engineering and technical education without intensive specialization. It is planned to provide considerable elective opportunities, which will enable the student to adapt the program to his particular needs, with emphasis on one branch of engineering training, science, or business.

All students with aptitude for professional engineering and the financial means are urged to complete the requirements for the degree in mechanical, electrical, or civil engineering in our State university or at some other institution having a standard engineering school. There is, however, an increasing need for college graduates in fields of engineering, engineering science, or business engineering, where an intensive specialized training is not necessary. Students with training in a general engineering curriculum may easily adapt their programs to provide preparation for work in various engineering fields, as the electrical, heating and ventilation, public utility, telephone, and aeronautical industries among many others. Preparation is also available for work in chemical engineering, engineering physics, and engineering economics. Students may also use this curriculum as an undergraduate preparation for additional work in certain graduate engineering colleges. Students who desire to prepare for teaching of engineering and allied subjects in the secondary schools and the junior colleges may use this curriculum, along with certain courses in education, to satisfy the undergraduate requirements for the general secondary credential.

The curriculum is not a specialized sequence of course work in specific engineering fields. If such specialized training is desired in the engineering fields, transfer to various colleges offering such work is recommended after completion of the lower division.

The high school program should include the following subjects: elementary algebra, 1 unit; plane geometry, 1 unit; algebraic theory, 1 unit; solid geometry,  $\frac{1}{2}$  unit; trigonometry,  $\frac{1}{2}$  unit; chemistry, 1 unit; physics, 1 unit; mechanical drawing, 1 unit.

## Lower Division

All college requirements for the A.B. Degree must be met except foreign language. (See p. 16.)

## Freshman Year

	Units
Chemistry 1A-1B	10
Physics 1A-1B	6
Mathematics 3A-3B	6
English Composition	3
Health Education 1 or 2	2
Physical Education	1
Psychology 1A	3
Biology 1 (or equivalent)	3
	34

## Sophomore Year

English	3
Physics 1C-1D	6
Mathematics 4A-4B	6
Electives chosen from the following	9
Engineering 1A-1B	—
Engineering 21	—
Engineering 22	—
Geology 1A	—
Chemistry 7-8	—
Social Science	6
Physical Education	1
	31



## Upper Division

During the first semester of his junior year the student must prepare and submit for approval of his advisors a tentative program for the remainder of his undergraduate work.

Political Science 101 (or equivalent).

Examination in American History, U. S. Constitution, etc. (see p. 18).

Complete the following major in general engineering: a total of 36 upper division coordinated units in three departments chosen from the following list (not more than 15 units may be chosen from one department).

The organization of the program of each major student must follow a definite plan approved by the proper advisors. Additional courses will be added from time to time. Required of all students (20 units):

	Units
Engineering 100A-100B, Electrical Engineering	6
Engineering 105, Hydraulics	3
Engineering 123, Materials of Engineering Construction	2
Engineering 128, Heat Power Engineering	3
Physics 105A-105B, Analytical Mechanics	6
Electives: 16 units, of which at least 6 units must be chosen from one of the following departments: chemistry, geology, astronomy, mathematics, or economics.	
Chemistry 110A-110B, Physical	6
Chemistry 105A, Quantitative Analysis	3
Chemistry 112A-112B, Industrial Chemistry	6
Chemistry 144, Industrial Analysis	3
Physics 110A, Advanced Electricity	3
Physics 110B, Electromagnetism-electronics	3
Physics 107A-107B, Electrical Measurements	2
Physics 108, Modern Physics	3
Physics 112, Advanced Heat-Thermodynamics	3
Physics 112L, Heat-Pyrometry Lab.	1
Physics 114, Acoustics	3
Geology 100, Structural Geology	3
Geology 101, Problems in Geology	4
Astronomy 100, Navigation-Astronomy	3
Astronomy 107, Least Squares	3
Mathematics 118, Advanced Calculus	3
Mathematics 119, Differential Equations	3
Mathematics 124, Vector Analysis	3
Mathematics 140, Probability-Statistics	3
Economics 107, Credit and Credit Institutions	3
Economics 121, Business Administration	3
Economics 123, Principles of Marketing	3
Economics 131, Public Finance and Taxation	3
Economics 133, Corporation Finance	3
Economics 135, Money and Banking	3
Economics 140, Statistical Methods	3
Economics 150, Labor Problems and Industrial Relations	4
Economics 171, Transportation	3
Industrial Economics	3
(Economics 14A-14B recommended)	

A student who desires to satisfy the undergraduate requirements for the general secondary teaching credential should include in his upper division work, in addition to the engineering major, certain courses in education which will partially satisfy the credential requirements. In order to conform to the usual university requirements this work should be chosen from Education 102C-102D and Education 115A-115B. Consultation with the Dean of Education is recommended.

## PRE-FORESTRY CURRICULUM

## Freshman Year

	Units	
Physical Education	$\frac{1}{2}$	$\frac{1}{2}$
Chemistry 1A-1B	5	5
Botany 2A-2B	4	4
English 1B and 11or 12, 13, 14, 15, 16	3	3
Mathematics 3A-3B	3	3
	15 $\frac{1}{2}$	15 $\frac{1}{2}$

## Sophomore Year

	Units	
Physical Education	$\frac{1}{2}$	$\frac{1}{2}$
Physics 2A-2B, 3A-3B	4	4
Engineering 1A-1B	3	3
Economics 1A-1B	3	3
Geology 2A	3	—
Health Education 1 or 2	—	2
Chemistry 7	3	—
Elective	—	4
	16 $\frac{1}{2}$	16 $\frac{1}{2}$



## PRE-LEGAL CURRICULUM

The entrance requirements of law colleges range from two years to three and four years of pre-legal 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.

The following curriculum meets 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. For the majority of pre-legal students a general major with concentration in economics, as provided for in the following curriculum, furnishes the most effective preparation for later professional study in law and for later activities in the field of business. However, for some students a major, or at least strong minors, in English, history, or political science, may provide a suitable preparation.

The high school program should include the following subjects: elementary algebra, 1 unit; plane geometry, 1 unit; intermediate algebra, 1 unit; foreign language, 3 units in one language or 2 units in each of two languages.

Following is a recommended arrangement of courses:

Freshman Year		Units	
Physical Education	1	1	1
Health Education 1 or 2	2	2	2
Foreign Languages (if needed to complete requirement)	0-5	0-5	0-5
Natural Science (see lower division requirements)	3-5	3-5	3-5
English	3	3	3
Economics 14A-14B	3	3	3
Psychology 1A	3	3	3
Elective	0-3	0-4	0-4
	15½	15½	15½
Sophomore Year		Units	
Physical Education	1	1	1
Additional Natural Science (if needed to meet requirement)	3	3	3
Economics 1A-1B	3	3	3
Philosophy 3A-3B, 5A-5B, or Mathematics 3A-3B	3	3	3
Political Science 1A-1B or 71A-71B	3	3	3
Elective	3	6	6
	15½	15½	15½
Junior Year		Units	
Economics 121	3	3	3
Economics 133	3	3	3
Economics Elective	3	3	3
History 151A-151B or 175A-175B	3	3	3
Political Science 111 and 113 or 143A-143B	3	3	3
Sociology 105, 106	3	3	3
Elective (see upper division requirements)	3	3	3
Examination in American History, U. S. Constitution, etc. (see p. 18)	3	3	3
	15	15	15
Senior Year		Units	
Economics 100A	3	3	3
Economics Electives	3	3	3
History 111A-111B or 121A-121B	3	3	3
Political Science 175A-175B	3	3	3
Elective	6	6	6
	15	15	15

## PRE-MEDICAL CURRICULUM

The entrance requirements of medical colleges ordinarily range from three to four years of pre-medical 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. All plans for pre-medical 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 pre-medical 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 high school program should include the following subjects: elementary algebra, 1 unit; plane geometry, 1 unit; chemistry, 1 unit; physics, 1 unit; French or German, 3 units. Two units of Latin are recommended.

Following is a recommended arrangement of courses:

Freshman Year		Units	
Physical Education	1	1	1
Health Education 1 or 2	2	2	2
Chemistry 1A-1B	5	5	5
English 1A or 1B, and 11, 12, 13, 14, 15, or 16	3	3	3
French or German (if needed to meet requirement)	0-5	0-5	0-5
Elective	0-5	0-8	0-8
	15½	16½	16½
Sophomore Year		Units	
Physical Education	1	1	1
Zoology 1A-1B	4	4	4
Psychology 1A	3	3	3
Chemistry 7-8	3	3	3
Social Science	3	3	3
Elective	3	6	6
	16½	16½	16½
Junior Year		Units	
Political Science 101	2	2	2
Physics 2A-2B	3	3	3
Physics 3A-3B	1	1	1
Chemistry 105	3	3	3
Zoology 100	4	4	4
Zoology 100D	4	4	4
Zoology 106	2	6	6
Electives	2	6	6
Examination in American History, U. S. Constitution, etc. (see p. 18)	15	15	15
Senior Year		Units	
Upper division requirements and electives for the major, the minors and the degree (see page 18)	15	15	15
	15	15	15



## PRE-NURSING 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 high school program should include the following subjects: elementary algebra, 1 unit; plane geometry, 1 unit; chemistry, 1 unit; physics, 1 unit; French or German, 3 units; domestic science (foods), 1 unit; 2 units of Latin are recommended. The following is a recommended arrangement of courses:

Freshman Year		Units	
Physical Education	-----	1	1
Health Education	-----	2	2
Biology A	-----	1	1
Chemistry 2A-2B	-----	3	3
Psychology 1A	-----	3	3
English 1A or 1B and 11, 12, 13, 14, 15, or 16	-----	3	3
French or German (if needed to complete requirement)	-----	0-5	0-5
Elective	-----	0-6	0-7
		15½	16½
Sophomore Year		Units	
Physical Education	-----	1	1
Psychology 1B	-----	3	3
Economics 1A-1B	-----	3	3
Bacteriology 1	-----	4	4
Physiology 1A, 1C	-----	5	5
Zoology 8	-----	3	3
Elective	-----	3	7
		16½	15½

## PRE-OPTOMETRY

The high school program should include the following subjects: elementary algebra, 1 unit; plane geometry, 1 unit; algebraic theory, 1 unit; trigonometry, 1 unit; physics, 1 unit; chemistry, 1 unit; foreign language, 3 units.

The following curriculum prepares for junior standing in university schools of optometry:<sup>1</sup>

Freshman Year		Units	
Physical Education	-----	1	1
Health Education 1 or 2	-----	2	2
Foreign Language (if needed to complete requirements)	-----	3	3
Physics 2A-2B	-----	3	3
Physics 3A-3B	-----	1	1
Psychology 1A	-----	3	3
Speech Arts 1A-1B	-----	3	3
Elective	-----	6	6
		15½	16½
Sophomore Year		Units	
Physical Education	-----	1	1
Chemistry 1A-1B	-----	5	5
Mathematics 3A	-----	3	3
Social Science	-----	3	3
Physiology 1A and 1C	-----	5	5
Elective	-----	4	3
		15½	16½

<sup>1</sup> Student should consult catalogue of school he plans to attend.



## SOCIAL WORK

The professional 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 welfare work; social work in public schools including preparation for a teaching credential; family and children's private case work agencies; social settlement work; county probation work; child welfare agencies; statistical and investigational work in private and public agencies; work in public institutions for the defective and delinquent; medical social service and psychiatric social 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 social science and minor in psychology.

The following subjects should be completed in high school: elementary algebra, 1 unit; plane geometry, 1 unit; algebraic theory, 1 unit; foreign language, 3 units in one language.

Following is the required arrangement of courses:

Freshman Year		Units	
Physical Education	-----	$\frac{1}{2}$	$\frac{1}{2}$
Health Education 1 or 2	-----	2	
Biology 10A-10B	-----	3	3
Foreign Language (if needed to complete requirement)	-----	0-5	0-5
Psychology 1A	-----	3	--
Speech Arts 1A-1B or English elective	-----	3	3
Elective	-----	1-6	2-7
		15 $\frac{1}{2}$	15 $\frac{1}{2}$
Sophomore Year		Units	
Physical Education	-----	$\frac{1}{2}$	$\frac{1}{2}$
Economics 1A-1B	-----	3	3
Political Science 1A-1B or 71A-71B	-----	3	3
Additional Natural Science (if needed to meet requirement)	-----	3	--
Sociology 50A	-----	3	--
Sociology 50B	-----	3	3
Elective	-----	3	6
		15 $\frac{1}{2}$	15 $\frac{1}{2}$
Junior Year		Units	
Economics 100B or 131 or 150	-----	--	3
Sociology 105	-----	3	--
Sociology 109	-----	3	3
Psychology 150	-----	3	--
Psychology 151	-----	3	3
Zoology 114A	-----	2	--
Political Science 101	-----	2	--
Elective	-----	5	6
Examination in American History, U. S. Constitution, etc. (see p. 18)	-----	--	--
		15	15
Senior Year		Units	
Economics 140	-----	3	--
Sociology 197	-----	3	--
Sociology Elective	-----	3	3
Psychology 145	-----	3	3
Political Science 143A-143B or restricted elective	-----	3	3
Elective	-----	3	9
		15	15

## PRE-VETERINARY CURRICULUM

Most colleges of veterinary medicine require but one year (32 units) of pre-veterinary college work. There are a few colleges which require two years and it is best to consult the bulletin of the college to which admission is desired for special requirements. The year of pre-veterinary work should include:

	Units	
Physical Education	$\frac{1}{2}$	$\frac{1}{2}$
Chemistry 1A-1B	5	5
Zoology 1A-1B	4	4
English	3	3
Health Education 1 or 2	2	--
Electives	2	4
	16 $\frac{1}{2}$	16 $\frac{1}{2}$

Recommended: Botany 2A-2B, a year course of some social science, Psychology 1A.



## PUBLIC ADMINISTRATION

As the vocational demand for students of public administration is comparatively limited, the student of public administration will do well to prepare himself also for a related field of work for which there is not only a cultural but also a vocational demand. The candidate for a public administrative position who is equipped for a career in a professional, scientific or technical field that is common to both public and private enterprise has a distinct advantage. The special courses in public administration listed in the following curriculum are supplementary courses designed for exploration and orientation. The curriculum as a whole provides for a major in economics, outlines a general preparation for the public service in social science fields and furnishes a basis for more highly specialized graduate courses in the field of public administration.

The high school program should include the following subjects: elementary algebra, 1 unit; plane geometry, 1 unit; intermediate algebra, 1 unit; foreign language, 3 units in one language.

The following arrangement of courses is recommended:

Freshman Year		Units	
Physical Education	1/2	1/2	
Health Education 1 or 2		2	
English		3	
Foreign Language (if needed to complete requirements)	0-5	0-5	
Psychology 1A	3		
Natural Science	3-5	3-5	
Economics 14A-14B	3	3	
Elective	0-5	0-4	
	16 1/2	15 1/2	
Sophomore Year			
English			
Physical Education	3		
Additional Natural Science (if needed to meet requirements)	1/2	1/2	
Economics 1A-1B	3	3	
Political Science 1A-1B or 71A-71B	3	3	
Elective	7	6	
	16 1/2	15 1/2	
Junior Year			
Economics 100A			
Economics 140	3		
Economics 100B	3		
Economics 131		3	
Political Science 175A-175B		3	
Elective	3	3	
Examination in American History, U. S. Constitution, etc. (see p. 18)	6	6	
	15	15	
Senior Year			
Economics 150		3	
Economics 107, 133, 135, 171	3		
Economics electives	3	3	
Political Science 143A-143B	3	3	
Elective	6	6	
	15	15	

## INTER-AMERICAN RELATIONS

The purpose of this curriculum is (1) to furnish a basis for a more intelligent and effective understanding of the opportunities and problems of international relations in the western hemisphere; (2) to provide facilities for a basic education and training for a business or professional career which involves international relations.

Competition for opportunities of service in international affairs is severe. The student who plans a career in this field should therefore organize his electives to provide for a concentration in some area of work in which there are greater vocational opportunities. Preparation for employment as a foreign representative of an American business organization implies concentration in economics. The student who pursues this curriculum as a guide for training for the foreign service in consular, vice consular, secretarial, and other public offices should include additional courses in foreign language, history, political science, geography, and economics to furnish more effective preparation for the comprehensive competitive examinations required for appointment to the Service and for entrance to the Foreign Officers Training School at Washington, D. C.

The proper faculty adviser should be consulted for revisions and additions to this curriculum to meet individual needs and objectives.

The high school program should include the following subjects: algebra, 1 unit; plane geometry, 1 unit; intermediate algebra, 1 unit; foreign language, 3 units in one language.

The following arrangement of courses is recommended:

Freshman Year		Units	
Physical Education	1/2	1/2	
Health Education 1 or 2		2	
English		3	
Spanish	0-5	0-5	
Natural Science	3-5	3-5	
History 8A-8B	3	3	
Psychology 1A		3	
Elective	4-8	0-3	
	15 1/2	15 1/2	
Sophomore Year			
Physical Education	1/2	1/2	
Additional Natural Science (if needed to meet requirements)	0-3		
Economics 1A-1B	3	3	
Political Science 1A-1B or 71A-71B	3	3	
Geography 1	0-6	9	
Elective			
	15 1/2	15 1/2	
Junior Year			
Political Science 141	3		
Political Science 142		3	
History 173A-173B	3	3	
Spanish 104A-104B	6	6	
Elective			
Examination in American History, U. S. Constitution, etc. (see p. 18)			
	15	15	
Senior Year			
Economics 195	3		
Economics 198 (Special Study—Western Hemisphere)		3	
History 161	3		
History 163		3	
Geography 116	3		
Geography 121	6	6	
Elective			
	15	15	



## 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 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 60 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 18 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.

### YEAR COURSES OPEN TO REGISTRATION IN THE MIDDLE OF THE YEAR

Aesthetics 1A-1B	History 111A-111B
Aesthetics 102A-102B	History 121A-121B
Anthropology 1A-1B	History 131A-131B
Anthropology 151A-151B	History 146A-146B
Economics 160A-160B	History 151A-151B
English 50A-50B	History 156A-156B
English 52A-52B	History 171A-171B
English 56A-56B	History 172A-172B
English 106A-106B	History 173A-173B
English 107A-107B	Political Science 1A-1B
English 117A-117B	Political Science 71A-71B
French 101A-101B	Spanish 101A-101B
French 105A-105B	Spanish 102A-102B
French 107A-107B	Spanish 104A-104B
French 110A-110B	Spanish 105A-105B
French 111A-111B	Spanish 110A-110B
History 3A-3B	Speech Arts 55A-55B
History 4A-4B	Speech Arts 55C-55D
History 8A-8B	Speech Arts 155A-155B
History 17A-17B	Speech Arts 156A-156B

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.

## DIVISION OF EDUCATION

### EDUCATION

#### Upper Division Courses

#### 100B Methods and Materials of Instruction

A series of professional methods courses in major and minor teaching fields. Each course carries two units of credit and must be taken prior to, or concurrently with directed teaching.

Subject sections in 100B are as follows:

	<i>Semester offered</i>
Ed. 100B-A, Methods in Art	Both
Ed. 100B-B, Methods of Accounting	Fall
Ed. 100B-BE, Objectives and Curricula in Business Education	Spring
Ed. 100B-E, Methods in English	Spring
Ed. 100B-L, Romance Language Methods	Spring
Ed. 100B-MA, Mathematics	Fall
Ed. 100B-MU, Methods in Music	Fall
Ed. 100B-PE, Methods in Phys. Ed. (Men)	Both
Ed. 100B-PE, Methods in Phys. Ed. (Women)	Both
Ed. 100B-SC, Methods in Science	Spring
Ed. 100B-SA, Methods in Speech Arts	Fall
Ed. 100B-S-SC, Methods in Social Sci.	Fall

#### 102A. Measurement and Evaluation in Elementary Education

A course required of all students preparing for an elementary teaching credential. It deals with the use of tests in the diagnosis and improvement of learning; construction of objective examinations; problems of evaluation in education; and the elements of statistical techniques. Fall and Spring (3)

#### 102B. Child Growth and Development

The course deals with a study of the mental, emotional, social, and physical development during childhood and early adolescence.

Directed observation required. Students who have credit in Psychology 102A or 102B will receive only half credit for this course. Fall and Spring (3)

#### 102C. Psychology of Adolescence

Experience and instruction organized around a study of the adolescent in today's society. The course deals with the adolescent's physiological, psychological, social, and emotional development as important determinants of the educational program. To be taken during the junior year. (3)

#### 102D. Measurement and Evaluation in Secondary Education

The course deals with the use of educational and psychological tests in the diagnosis of difficulties and improvement in learning; problems of evaluation in education; construction of objective examinations; and the elements of statistical techniques. (2)

#### 103. Federal, State, and County School Organization, and Administration

A study of support, control, and agencies representative of each of these governmental units, with particular attention to the functions of the State and county in the educational program of California. Designed to meet the requirement as prescribed for the elementary school administration credential. (3)

#### 109B. Educational Administration and Supervision Field Work

Individual field work as required for the administration credential. By arrangement with the Dean of Education. (3)

#### 110. Educational Organization and Supervision

Types of supervision and methods of evaluating and improving teaching. Prerequisites: Graduation from college with a teaching credential or two or more years of teaching experience. (3)



**115A. History and Philosophy of Education**

Historical backgrounds and underlying philosophies upon which the modern public school system has been established. The content covers such problems as the meaning of education, educational aims and values, and democracy and education. Prerequisite: Senior standing or the equivalent. Fall and Spring (2)

**115B. Secondary Education**

The role of the teacher in secondary education; methods, materials, and directed observation of classroom teaching and management; trends in the organization and development of the secondary school curriculum. To be taken during the junior year. Fall and Spring (2)

**116. Directed Teaching**

Systematic observation, participation and teaching under supervision in the campus elementary school, the affiliated elementary, junior high and senior high schools. During the first semester of directed teaching in the secondary schools a weekly conference period is required as indicated in the time schedule.

The general plan is for elementary school credential candidates to take, in addition to the education practicums, a half-day of teaching daily in the campus elementary school or two and one-half hours daily in one of the affiliated elementary schools throughout one semester. Junior high school and special secondary school credential candidates will be guided by their adviser relative to the distribution of their directed 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 directed teaching.

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

The maximum amount of credit allowed for directed teaching is twelve units.

The universities usually reduce the amount of directed 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 directed teaching.

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

**117A. Elementary Music Education**

Main objectives of music teaching in the public elementary schools. Study of the child voice. Organization of song material by grades. Procedure in presenting rote songs, ear training, elementary notation, 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)

**117B. Methods in Instrumental Music**

A study of the theory of problems or organizing and conducting school bands and orchestras, and the selection of materials. Provides practical experience in conducting a children's orchestra and teaching sectional groups. A study of systematic planning of courses of study for pupils of various ages and abilities will be made. (2)

**119. Art in the Elementary School**

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)

**122. Social Studies in the Elementary School**

A study of the nature and purpose, scope, organization and instructional procedures in the social studies in the elementary school. Opportunity will be given for the construction of curriculum units and the analysis of teaching materials. (2)

**127. Secondary Music Education (See Education 100B)**

Main objectives of music teaching in the public secondary schools. Organization of the chorus and glee clubs, voice testing, seating, a survey of song materials available. Organization of courses in applied music, harmony, history and appreciation. (2)

**129. Arithmetic in Elementary Education**

A course for teachers of arithmetic in the elementary and junior high school. Emphasis is placed upon the understanding of the systems of notation and language techniques. Assistance given to constructing instructional materials and procedures. (2)

**130. Educational Psychology**

A study of the science of human behavior as it relates to learning. Emphasis is given to the principles of learning and maturation of the organism. Special aspects treated are the growth of meanings, thinking, memory and habit formation, motivation, transfer of learning, organic and environmental conditions affecting learning, and individual differences. Prerequisite: Psychology 1A. (2)

**136. Reading in the Primary Grades**

A study of procedures in guiding children's learning to read through the first three grades. This will include practical suggestions for teachers in developing reading readiness, beginning reading, independence in word recognition and reading as a thinking process throughout this period. Analysis will be made of individual and group problems; selection, preparation and use of materials will be studied. (2)

**144. Diagnosis and Remedial Treatment of Difficulties in Reading**

Lectures and demonstrations relative to the causes of reading difficulties and the procedures for diagnosis and remedial treatment. Students will be expected to do practical work with children who have reading difficulty. The work is designed primarily for principals, supervisors and teachers-in-service. Prerequisite: Education 102B or Education 102A, or one year of successful teaching experience. (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. (2)

**146. Education Practicum (Kindergarten-Primary)**

This course is a continuation of Education 148 and should accompany Education 116 in the kindergarten. It is a study of the theory of early childhood education. Provides experience with children of nursery school and kindergarten ages. Prerequisite: Education 147, 148. (4)

**147. Education Practicum**

This course is required of all students who expect to receive a credential which will qualify them to teach in the kindergarten or in the elementary school. Students should take the course during the next semester after admission to Teacher Education, which is usually the first semester of the junior year. Registration is strictly limited to those who have been approved by the Committee on Admission to Teacher Education.

Education Practicum is a unified course which deals with the interpretation and intelligent application of theory and practice in elementary education. The child and accumulated knowledge are studied as one affects the other. The psychology of learning is interpreted while the college student is immediately associated with children in the process of learning. For two or three hours each day classes are held in which the psychology and philosophy of education are studied and analyzed as systems of knowledge and concurrently interpreted in reference to the actual teaching participation to which the student is assigned for one hour daily. The course includes Health Education 151 (2); Methods in Primary Reading (2); Elementary School Methods, Education 151 (2); Methods in Primary Reading (2); Elementary Music Education (1); Elementary including Children's Literature (2); Elementary Music Education (1); Elementary Art Education (1); Mental Hygiene and Speech (2); Directed Teaching (2).

The course is taught by college teachers who supervise in the Campus Elementary School, and other faculty members (12).



**148. Education Practicum**

The course is a continuation of Education 147 and is required of all students who are candidates for the general elementary credential or the kindergarten-primary credential. An extended analysis is made of the psychology of education in various fields and application is made through directed teaching in grades 4 to 6. The course includes Elementary Arithmetic Education (2); Elementary Social Studies and Science Education (2); Elementary Art Education (1); Elementary Music Education (1); Educational Psychology (learning process) (2). Additional 4 units for General Elementary only: Language Arts (2); Directed Teaching (2). Prerequisite: Education 147. (12)

**149A. Laboratory in Elementary Education**

A general course in observation and theory covering all teaching done in the summer demonstration school, including arithmetic, reading, language, music, science, social studies, art, spelling. Students in this course will observe in the summer demonstration school and discuss with the staff the teaching procedures. (3)

**149B. Workshop in Elementary Education**

Students in this course will select a problem related to their professional assignment for the coming year and work upon it in the summer session under the guidance of the staff. Groups of teachers may work together upon common curriculum problems or toward other objectives in personal or professional improvement. Special interests, community study, field trips, subject matter areas, and many other types of experience which will provide educational source background may be selected. Students should correspond with the Director of Elementary Education in advance to secure most effective planning of the course.

This course can be very profitably combined with 149A. Arrangements may be made to secure 6 units of credit. (3)

**149C. Laboratory in Rural Education**

Observation in a one-room multigraded summer demonstration school. Students will observe demonstrations, discuss procedures with the staff, and prepare material for their own schools. (6)

**155. Principles of Guidance**

An analysis of the problems of pupil personnel, guidance and parent-teacher relationships in the public schools. A study of the source materials useful in guidance and a survey of the literature pertaining to the principles and practices of guidance. (3)

**163. Methods in Secretarial Subjects****165. Methods in Merchandising****174. Audio-Visual Aids in Instruction**

A study of audio-visual aids as they affect learning. Analysis and development of materials of instruction and their presentation; operation of equipment. (2)

**175. The Organization and Administration of Elementary Schools, Including School Law**

A course designed to fit the needs of teachers in service who are preparing for elementary school principalships. This course is a prerequisite for Education 109B, Educational Administration and Supervision, Field Work, and is designed for teachers who hold an elementary school credential. Attention will be directed to problems associated with the personnel, finance, curriculum, plant, community relations, and legal aspects involved in the administration of elementary schools. (3)

**176. Problems of Speech Correction and Articulation**

Analysis and discussion of the major articulatory problems as encountered in public school work, particularly in California. Required of all students for the speech correction credential. (3)

**177. The Teaching of Lip Reading**

History, theory and methods of lip reading. Aids for the classroom teacher; program and materials of instruction for the specialized teacher. Opportunities for practice teaching are offered. (2)

**178. Problems of the Hard of Hearing**

The adjustment of the hard of hearing group with emphasis on the public school child. State and county hearing programs; technique of audiometry; use of hearing aids; educational, classroom, and social problems. (2)

**179. Speech Disorders**

Classification of speech defects and disorders. Nervous speech disorders; stammering, stuttering, hesitation, cluttering. Teacher training in corrective technique for use in public schools; clinic observation. Required of candidates for the Special Secondary Credential in Speech Correction. (3)

**199. Educational Problems**

A course for senior students in residence and enrolled in teacher education 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.

**201. Curricular Problems in Secondary Education**

Appraisal of outstanding studies in the content and organization of the secondary school curriculum, followed by the student's own investigation of problems in either his major or minor field. Topics for study will be determined jointly by students and instructor. To be taken in the graduate year. (2)

**202. Guidance Problems in Secondary Education**

A study of good guidance procedures. An analysis of the psychological and educational factors involved in assisting high school students to adjust themselves to the high school situation, and problems of guiding youth in the selection and preparation of a life career. To be taken in the graduate year. (2)

**316. Directed Teaching**

Systematic observation, participation, and teaching under supervision in an affiliated high school. Thirty clock hours of directed teaching will usually earn one unit of credit, but the credit finally allowed will depend upon the nature and quality of the teaching done. Any work below a C grade is unacceptable for credit in this course. (6)

No student can enroll in this course until he has completed at least 5 units of work in education.

During the semester in which the student takes his first assignment in directed teaching, he must meet with the college supervisor one hour each week for conference and discussion of problems encountered in his teaching.

Students who have had directed teaching in preparation for the junior high school or special secondary credentials should confer with their departmental and educational advisers concerning partial fulfillment of this requirement as the result of having completed the directed teaching required for the credentials mentioned above.



## DIVISION OF FINE ARTS

## 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. Art Orientation

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

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

Fall (2)

## 51. Survey of Mexican Art

A study of Mexican and Middle American Art from earliest time to present.

Fall (2)

## Upper Division Courses

## 102A-102B. Music History

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

Year course (2-2)

## 150. Appreciation and History of Art

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

Spring (2)

## ART

Many students, regardless of the field in which they may be majoring, recognize the need for an intelligent approach to the subject of art and art appreciation. However, due to the erroneous popular feeling that art is so specialized a subject as to require "talent," these students may refrain from enrolling in any art courses.

For students who desire a better understanding of art, but who do not hope to acquire any of the art skills, the following courses are recommended:

	Units
Aesthetics 5, Fundamentals of Art	2
Aesthetics 50, History and Appreciation of Art	2
Aesthetics 51, Survey of Mexican Art	2
Art 8, Costume and Home-furnishing	2
Other courses which require certain skills but which are not beyond the ability of the average college student are:	
Art 61B, Crafts	2
Art 6A, Design	2
Art A, Freehand drawing	3
Art 94, Costume design	2

For students who might wish to complete a minor in art after having met the lower division requirements from the preceding page, the following courses are recommended as not requiring special training in drawing and design:

Art 119, Ceramics	2
Art 152A, Stage Design	2
Aesthetics 150, History and Appreciation of Art	2

Candidates for a teaching credential in art should refer to the statement "Admission to Teacher Education" on page 21.

Lower division preparation for the liberal arts major in art: Aesthetics 5 or 51, and 50; Art A-B and 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, 116A, 152A, 195, or the accepted equivalent; 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 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 54.

## Lower Division Courses

## A-B. Drawing and Composition

Semester I: Problems involving perspective to develop ability to draw still life, furniture, exteriors, 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, pastel, and water color.

Year course (2-2)

## 6A. Design

Fundamentals of design and composition and theory of color. Basic course used as a prerequisite for all advanced work.

Fall and Spring (2)

## 6B. Design (continued)

Original work in creative design and representation with special stress on modern tendencies. Prerequisite: Art 6A.

Fall and Spring (2)

## 7. Line, Color and Display

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 (2) (Not offered in 1945-46)

## 8. Costume and House Furnishings

An appreciative study of modern architecture and modern house furnishings, with emphasis on the spirit of gracious living and an appreciative study of the modern dress with emphasis on suitability to the figure, the personality and the occasion.

Fall and Spring (2)

## 11A. Industrial Design

Design of objects for manufacture with reference to their use, materials, and in accordance with factory practices and machine techniques. Prerequisite: Art 6A-6B, A.

Fall (2)

## 11B. Advanced Industrial Design

Advanced problems with particular attention to the techniques of presentation—working drawings, renderings in perspective and scale models. Prerequisite: Art 6A-6B, A, 11A.

Spring (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)

**15A-15B. Life Drawing**

Drawing from the nude model. Prerequisite: Art A-B.

Year course, beginning either Fall or Spring (2-2)

**16A-16B. Painting**

Semester I: Composition of still life and flower forms in water color and oil. Semester II: Landscape and more advanced composition in water color and oil. Prerequisite: Art A-B.

Year course, beginning either Fall or Spring (2-2)

**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)

**52B. Stage Costume (See 152B)**

Fall (2)

**Art 61A. Crafts in the Elementary Schools**

A foundation course which develops unification of work of the elementary grades through activities and experiences. These experiences grow out of environmental activities. They include study and working of clay, lumber and tools, textiles, and cardboard construction. Prerequisite: Art 6A.

Fall and Spring (2)

**61B. Crafts**

Problems involving the application of design principles to various fields—pottery, textiles, weaving, metal work, wood-carving, and book-binding. Prerequisite: Art 6A.

Fall and Spring (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. Prerequisite: Art 6A.

Spring (2)

**95. Interior Decoration (See Art 195)****Upper Division Courses****106A-106B. Printmaking**

Study of print crafts which includes the making of linoleum blocks, wood engravings, etchings and lithographs. Prerequisites: Art A, B, 6A.

Year course (2-2)

**106C. Illustration**

Same as 106A-B except that printmaking is applied to problems of book illustration. Prerequisites: Art A, B, 6A.

Spring (2)

**112A-112B. Design and Composition**

Imaginative organization of space by means of color, dark and light, perspective, and textures of various materials. Prerequisites: Art A-B, 6A-6B, and if possible 15A-15B or 106A.

Year course (2-2)

**115A-115B. Life Drawing and Painting**

Drawing and painting from nude and costume models.

Year course, beginning either Fall or Spring (2-2)

**115C-115D. Advanced Life**

Painting from nude and costume models and advanced composition in oil. Portraiture. Prerequisite: Art 115A-115B.

Year course, beginning either Fall or Spring (2-2)

**116A-116B. Advanced Painting**

Painting in water color and oils from still life and landscape, stressing composition and technique. Prerequisite: Art 16A-16B.

Year course, beginning either Fall or Spring (2-2)

**119A. Ceramics**

Building of pottery on the basic techniques of coil, slab, mold making, and slip casting. Ceramic sculpture, glazing and kiln operations.

Fall (2)

**119B. Ceramics**

Study of glazes and elementary clay technology. Mold making, slip casting with application to individual creative problems.

Spring (2)

**152A. Stage Design**

See Art 52A.

**152B. Stage Costume**

Costume studied in relation to drama, opera and dance. Original designs for mood and character. Practical problems in designing costumes and accessories for college productions. Prerequisites: Art 6A, 52A or 152A.

Fall (2)

**194. Costume Design (See Art 94)**

Spring (2)

**195. Interior Decoration**

Lectures and designing in class, trips to art galleries, stores, factories and homes, studying how to recognize and choose the best in furniture, rugs, wall coverings, textiles and pottery as to design, color and materials. Actual experience in designing and arranging furnishings in homes and offices. Working with local stores and architects. Arrangement of flowers and objects for different types of rooms and occasions. Prerequisites: Art A, 6A.

Spring (2)

**MUSIC**

Candidates for a teaching credential in music should refer to the statement "Admission to Teacher Education Curricula" on page 21 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 28.

Lower division preparation for the liberal arts major in music: Music 1B-1C-1D; 4A-4B; 4 units of Applied Music (study of piano, voice or orchestral instrument); Aesthetics 1A-1B.

Liberal arts major (upper division): twenty-four upper division units. These shall include Music 105A-105B; 106A; 107A; 119A, 120A, 121A; 4 units of Applied



Music; Aesthetics 102A-102B; and 4 units of music activity credit (Music 111, 112, 113, 115, or 130).

At least a C average in upper division music courses is necessary.

It is recommended that students in meeting degree requirements and in choosing free electives, select from the following courses: English 56A-56B; French A-B; German A-B; History 4A-4B; 146A-B; Physics 2A-2B.

#### Lower Division Courses

##### 1A. Musicianship—Fundamentals of Music

The elements of music; scale construction; elementary music theory; drill in music reading both with syllables and with words; ear training, elementary music dictation. Basic course for all general elementary credential students. Music majors receive no credit.

Fall and Spring (3)

##### 1B. Musicianship—Music Reading and Ear Training

Tonal and rhythmic dictation; rhythmic writing; sight singing. Basic course for majors and minors. Text—Smith and Krone: Fundamentals of Musicianship Book I. Prerequisite: Music 1A, or the equivalent. Music majors not able to pass the departmental entrance examination in the fundamentals of music will take 1A without credit in preparation for this course.

Fall and Spring (2)

##### 1C-1D. Musicianship—Advanced Music Reading and Ear Training

Tonal work in minor keys; modal scales; dissonant triads and seventh chords; interval feeling in all chords; rhythmic progression and elementary forms; rhythmic, melodic and harmonic dictation. Prerequisite: Music 1B.

Year course (2-2)

##### 2A. String Instruments

Beginner's class in violin, viola, 'cello and string bass. Required of all music majors working for a Special Secondary credential unless this orchestral section is the major or minor field.

Fall and Spring (1)

##### 3A. Woodwind Instruments

Beginner's class in oboe, clarinet, flute and bassoon. Required of all music majors working for a Special Secondary credential unless this orchestral section is the major or minor field.

Fall and Spring (1)

##### 4A-4B. Elementary Harmony

Scale construction, intervals, by-tones and diatonic harmonies. Transposition and original composition in the simpler forms. Text—Alchin: Applied Harmony Vol. I. Prerequisite: Music 1A-1B, or the equivalent, and at least one year of piano study.

Year course (3-3)

##### 6A. Brass Instruments

Beginner's class in trumpet, French horn, baritone, trombone and tuba. Required of all music majors working for a Special Secondary credential unless this orchestral section is the major or minor field.

Fall and Spring (1)

##### 7A. Music Materials for the Elementary School

Study of the song material in the state music texts and in the supplementary texts. Appreciation materials applicable to the elementary school. Required course for all general elementary credential students. Prerequisite: Music 1A.

Fall and Spring (3)

##### 11A-B-C-D. Women's Glee Club—Treble Clef

Entrance upon examination.

Fall and Spring ( $\frac{1}{2}$ - $\frac{1}{2}$ )

##### 12A-B-C-D. Men's Glee Club

Entrance upon examination.

Fall and Spring ( $\frac{1}{2}$ - $\frac{1}{2}$ )

##### 13A-B-C-D. Orchestra

Permission of the conductor required for membership.

Fall and Spring (1-1)

##### 15A-B-C-D. Choral Club

Entrance upon examination.

Fall and Spring ( $\frac{1}{2}$ - $\frac{1}{2}$ )

##### \*16A-16B-16C-16D. Individual Study of an Orchestral Instrument

Fall and Spring (1-1)

##### \*17A-17B-17C-17D. Individual Study of Voice

Fall and Spring (1-1)

##### \*18A-18B-18C-18D. Individual Study of Piano or Organ

Prerequisite: The ability to play artistically hymns and folk songs of the type found in the Golden Book of Favorite Songs.

Fall and Spring (1-1)

##### 20A-B-C-D. Chorus

Open to anyone interested in singing standard choral works. No examination required.

Fall and Spring ( $\frac{1}{2}$ - $\frac{1}{2}$ )

##### 26A-B-C-D. Band

Permission of the conductor required for membership.

Fall and Spring ( $\frac{1}{2}$ - $\frac{1}{2}$ )

##### 28A-28B. Piano

Fundamental playing and reading technics for the pianoforte. Emphasis upon playing by ear, and the development of interpretative ability. For beginners only. No credit for music majors and minors.

Year course (1-1)

##### 29A-B. Class Voice

A class for beginners in the vocal field taking up the problems of breath control, tone placement, articulation and enunciation. Frequent performance before class required. Limited to 15.

Year course (1-1)

##### 30A-B. Chamber Music

String and woodwind ensembles. The consent of the instructor necessary for admission to class.

Year course (1-1)

\* See page 61, conditions under which credit may be given for music study under private instructors.



## Upper Division Courses

**102A-102B. Music History**

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

Year course (2-2)

**105A-105B. Advanced Harmony and Composition**

Study of the possible types of modulation and chromatic harmonies: continuation of harmonic analysis and original composition. Text—Alchin: Applied Harmony Vol. II. Prerequisite: Music 4A-4B.

Year course (3-3)

**106A. Counterpoint**

Study of the five species of counterpoint with much practice in writing in such forms. Application of contrapuntal style to modern composition. Prerequisite: Music 4A-4B.

Fall (2)

**107A. Form and Analysis**

Aural and visual analysis of music forms through a consideration of structure, harmonic content, and style. Prerequisite: Music 105A-105B.

Spring (2)

**111A-B-C-D. Women's Glee Club—Treble Clef**

Entrance upon examination.

Fall and Spring ( $\frac{1}{2}$ - $\frac{1}{2}$ ) (A maximum of 2 units in glee club may be counted toward the A.B. Degree)

**112A-B-C-D. Men's Glee Club**

Entrance by examination.

Fall and Spring ( $\frac{1}{2}$ - $\frac{1}{2}$ ) (A maximum of 2 units in glee club may be counted toward the A.B. Degree)

**113A-B-C-D. Orchestra**

Permission of the conductor required for membership.

Fall and Spring (1-1) (A maximum of 4 units in orchestra may be counted toward the A.B. Degree)

**115A-B-C-D. Choral Club**

Entrance by examination.

Fall and Spring ( $\frac{1}{2}$ - $\frac{1}{2}$ ) (A maximum of 2 units in Choral Club may be counted toward the A.B. Degree)

**\*116A-116B-116C-116D. Advanced Individual Study of an Orchestral Instrument**

Fall and Spring (1-1)

**\*117A-117B-117C-117D. Advanced Individual Study of Voice**

Fall and Spring (1-1)

**\*118A-118B-118C-118D. Advanced Individual Study of Piano or Organ**

Fall and Spring (1-1)

**119A. Instrumental Conducting**

Conducting and reading of orchestral scores.

Fall and Spring (1)

\* See page 61, conditions under which credit may be given for music study under private instructors.

**120A. Vocal Conducting**

The theory of vocal conducting together with practical experience gained from directing the college chorus. Prerequisite: Music majors with senior standing.

Fall and Spring (1)

**121A. Instrumentation**

Arranging of music for full orchestra. Selected works of pupils to be performed by standard orchestras.

Fall and Spring (2)

**126A-B-C-D. Band**

Permission of the conductor required for membership.

Fall and Spring ( $\frac{1}{2}$ - $\frac{1}{2}$ ) (A maximum of 4 units in band may be counted toward the A.B. Degree)

**130A-130B. Chamber Music**

String quintet and woodwind ensembles only. Permission of the instructor necessary for class membership.

Year course (1-1)

### CONDITIONS UNDER WHICH CREDIT MAY BE GIVEN FOR MUSIC STUDY UNDER PRIVATE INSTRUCTORS

Credit may be allowed for private instruction in music under the following conditions:

1. The applicant for such credit must be a regularly enrolled student in the music department of the college.
2. The instructor giving such private work must be approved by the Music Department. All private work and the names of all such teachers must be registered in the office of the music department chairman at the beginning of the semester.
3. In the case of first semester private study, a placement examination conducted by the music department faculty at the beginning of the semester will show the status of the student at the beginning of his work.
4. Evidence that the standards of the Music Department have been met will be shown by an examination conducted by the music department faculty at the end of the semester.



## DIVISION OF HEALTH, PHYSICAL EDUCATION, AND RECREATION

### HEALTH EDUCATION

#### Lower Division

#### 1. Health and Social Adjustment (Men)

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)

An informational course, reviewing the principles underlying the improvement of personal health, and the solution of practical problems of young women and prospective homemakers. Lectures by specialists in the various fields serve to enrich the course. Required of all freshmen who are candidates for junior standing or the degree.

Fall and Spring (2)

#### 61A. Nutrition

The purpose of this course is to consider health maintenance through food selection from the modern scientific viewpoint. Consideration is given to the fundamentals of an adequate diet from the basis of the known dietary essentials and of the disorders which result from the deprivation of these factors. Diets for special needs are also planned. Recommended for pre-medical, pre-dental, pre-nursing, and sociology majors. Red Cross Nutrition Certificate is granted upon course completion.

Spring (2)

#### 61B. Nutrition—Laboratory

A basic course in food preparation which includes the study of typical food selection and preparation methods which best conserve the essential food flavors and nutrients. Class meets once a week and is open only to students who have registered in Nutrition 61A.

Spring (1)

#### 90. Physiology of Reproduction (Women)

A course consisting of a series of lectures and discussion dealing with normal and abnormal physiology and anatomy of reproduction, facts and frauds in sex hygiene, and related topics. Prerequisite: Health Education 2.

Fall and Spring (1)

#### Upper Division

#### 151. Health Education (Education 147-148)

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

Fall and Spring (2)

### PHYSICAL EDUCATION

#### Men's Department

Candidates for a teaching credential in physical education should refer to the statement "Admission to Teacher Education Curricula" on page 21. For the teacher education curriculum in physical education see page 30.

#### Lower Division Courses

A two-hour activity course each semester is required for the two years of lower division. A medical examination is given each student when entering and the work is fitted to his needs. Individual Adapted Activity sections to fit the special needs of the individual student are included. The content of the required two years is planned to give each student an opportunity to participate in those sports which have carry-over value into after life in addition to body building exercises and endurance training. Opportunity is given all students to take part in the regular competitive sports program.

Intercollegiate sports may be taken in addition to required lower division courses. A maximum of one unit in sports in one semester may be counted toward the A.B. Degree.

#### 1A-1B. Freshman Activity.

Year course, beginning either Fall or Spring ( $\frac{1}{2}$ - $\frac{1}{2}$ )

#### 1C-1D. Sophomore Activity

Year course, beginning either Fall or Spring ( $\frac{1}{2}$ - $\frac{1}{2}$ )

Demonstrated ability to pass standard tests in body agility and game skills will permit student to substitute sports participation for required courses.

#### Sports and Athletics

2A-2B-2C-2D, Boxing ( $\frac{1}{2}$ )

3A-3B-3C-3D, Track (1)

4A-4B-4C-4D, Baseball (1)

5A-5B-5C-5D, Basketball (1) ( $\frac{1}{2}$  Fall,  $\frac{1}{2}$  Spring)

6A-6B-6C-6D, Badminton ( $\frac{1}{2}$ )

7A-7B-7C-7D, Golf ( $\frac{1}{2}$ )

8A-8B-8C-8D, Wrestling ( $\frac{1}{2}$ )

9A-9B-9C-9D, Cross Country ( $\frac{1}{2}$ )

10A-10B-10C-10D, Swimming ( $\frac{1}{2}$ )

11A-11B-11C-11D, Tennis ( $\frac{1}{2}$ )

13A-13B-13C-13D, American Football (1)

13X-13Y-13Z, Spring Football ( $\frac{1}{2}$ )

14A-14B-14C-14D, Gymnastics ( $\frac{1}{2}$ )

15A-15B-15C-15D, Fencing ( $\frac{1}{2}$ )

16A-16B-16C-16D, Archery ( $\frac{1}{2}$ )

Any of above sports will be offered only if demand is sufficient.

#### 30. Physical Conditioning and Training

Methods and procedure of securing the mental and physical condition necessary for maximum performance in athletics. Diet, massage, and training procedure given special attention. (2)

#### 51. First Aid and Safety Education

The accepted procedure in meeting the emergencies which arise daily in school-room, play or athletic field, beach, mountains, or any of the many places where the physical director is called on for first aid. Special attention given to the arrangement of the apparatus and the activities so that many of the most common accidents are prevented or minimized. Course content qualifies for Red Cross Certificate. (2)

#### 53. Physical Education in the Elementary School

The content of the State program in physical education forms the basis of the course. Two lectures, two one-hour laboratory periods per week. ( $2\frac{1}{2}$ )

#### 72. Introduction to Physical Education

An orientation course in the history, philosophy, and objectives of physical education. (2)

#### Upper Division Courses

#### 154. Principles and Administration of Physical Education in Secondary Schools

The philosophy and principles of physical education and its relation to general education. Analysis of present-day programs and methods in terms of objectives. The study of selection and adaptation of activities, examination and grouping of pupils, testing the results of teaching, evaluation of the teacher, provision of equipment, and departmental organization. (3)



**155. Applied Anatomy and Kinesiology**

Principles of body mechanics; analysis of joint mechanism and muscular action in fundamental movements, everyday activities, sports, dancing, and gymnastic exercises. Prerequisite: Zoology 8. (3)

**156A. Sports Methods**

Different theories and methods of teaching the more highly organized team sports: Football, basketball, and baseball. (2)

**156B. Sports Methods**

Methods of teaching those sports most adaptable to the intramural and recreational programs: Golf, handball, soccer, speedball, volley ball, badminton, archery, tennis, swimming, track, etc. (2)

**162A. Gymnastic Procedure and Techniques**

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. (2)

**162B. Gymnastic Procedure and Techniques**

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. (2)

**170. Recreational Leadership**

Fundamentals of recreational leadership developed by instruction in club and camp activities, the study of school recreational needs and facilities, and of civic recreation. Open to all upper division men and women. Recommended to students interested in the recreational aspects of social service. (2)

**177. Individual Program Adaptation**

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. (2)

**200. Tests and Measurements in Physical Education**

Study and evaluation of tests and measurements in the field of physical education. Practice in the use of tests and interpretation of results. Prerequisite: Graduate standing. (2)

**201. Corrective Physical Education**

Study of postural abnormalities and their correction through exercise. Practice in giving examinations, planning exercise programs, and teaching corrective exercises. Prerequisite: Graduate standing. (3)

**202. Problems in Physical Education and Recreation**

Survey of the literature, discussion of trends and current problems in physical education and recreation. Observation of school and community activities. Analysis and evaluation of a problem situation. Written reports required. Prerequisite: Graduate standing. (3)

**Women's Department**

Candidates for a teaching credential in physical education should refer to the statement "Admission to Teacher Education Curricula" on page 21, and to the outline for the A.B. Degree with Special Credential in Physical Education on page 31.

**Lower Division Courses**

Two hours per week of directed physical activity are required through out the freshman and sophomore years. Freshman students may choose courses from the following, 1A, 1B, 1C. Sophomore students may choose from all activity courses offered.

**1A. Fundamental Skills**

Practice in efficient fundamental body movements.

Fall and Spring (1)

**1B. Folk Dancing**

Fall and Spring (1)

**1C. Rhythmic Skills**

Fall and Spring (1)

**1D. Team Sports**

(All four are required of all women candidates for the special credential in physical education.)

Fall and Spring (1)

Sophomores may elect from the following

**2A-2B. Folk Dancing**

Fall and Spring (1)

**3A-3B-3C-3D. Modern Dance**

Fall and Spring (1)

**4A-4B. Social Dancing—for men and women**

Fall and Spring (1)

**5A-5B. Archery**

Fall and Spring (1)

**6A-6B. Badminton**

Fall and Spring (1)

**7A-7B. Golf**

Fall and Spring (1)

**11A-11B. Tennis**

Fall and Spring (1)

**12A-12B. Advanced Modern Dance**

Laboratory experiments in advanced choreography and percussion accompaniment. For men and women. Prerequisites: 1C and 3A for women, 1C for men.

Fall and Spring (1-1)

*Any of the above activities may be taken for additional credit*

**51. First Aid and Safety Education**

Standard American Red Cross First Aid course; accident prevention; materials and methods in safety education.

Fall (1)

**53. Physical Education in the Elementary School**

The content of the State program in physical education forms the basis of the course. Two lectures, two one-hour laboratory periods per week.

Spring (2)

**72. Introduction to Physical Education**

An orientation course in the history, philosophy, and objectives of physical education. (2)

**Sports**

1. The individual activities, tennis, golf, archery, badminton and dancing are offered through the year. Candidates for the special credential 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 66.)

2. The Women's Recreation Association sponsors the intramural sports program. Under its direction competition in dual and group games is promoted throughout the year. Open to all college women.

#### Upper Division Courses

Open to all women. Required of women candidates for the special credential in physical education.

#### 153. Principles and Administration of Secondary Physical Education

The philosophy and principles of physical education and its relation to general education. Analysis of present-day programs and methods in terms of objectives. The study of selection and adaptation of activities, examination and grouping of pupils, testing the results of teaching, evaluation of the teacher, provision of equipment, and departmental organization. Selection and use of audio-visual aids. Open to both men and women.

Fall (3)

#### 155. Applied Anatomy and Kinesiology

Principles of body mechanics; analysis of joint mechanism and muscular action in fundamental movements, everyday activities, sports, dancing, and gymnastic exercises. Prerequisite: Zoology 8.

Spring (3)

#### 156A-156B. Sports Methods

Analysis of skills in basketball, hockey, soccer, speedball, volleyball, and softball; methods of presenting sports to large groups; study of rules and officiating. (2-2)

#### 160. Teaching of Body Mechanics

A study of efficient use of the body in daily living; evaluation and classification of exercises, methods and practice in planning and presenting material.

Fall (2)

#### 161. Folk Dancing Materials and Advanced Techniques

A study of folk customs, festivals, and costumes. Selection of dance materials for various age groups. Practice in advanced techniques.

Spring (2)

#### 164A-164B. Methods in Modern Dance

Laboratory experiments in advanced choreography and percussion accompaniment. Historical survey and practical experience in production techniques and teaching methods. Two activity periods and one lecture per week. Open to both men and women.

Year course (2-2)

#### 170. Recreational Leadership

Fundamentals of recreational leadership developed by instruction in club and camp activities, the study of school recreational needs and facilities, and of civic recreation. Open to all upper division men and women. Recommended to students interested in the recreational aspects of social service.

Spring (2)

#### 177. Individual Program Adaptations

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)

#### 185. Techniques of Individual Sports

A course summarizing rules and teaching methods, and testing individual playing ability.

Fall (1)

#### 200. Tests and Measurements in Physical Education

Study and evaluation of tests and measurements in the field of physical education. Practice in the use of tests and interpretation of results. Prerequisite: Graduate standing. (2)

#### 201. Corrective Physical Education

Study of postural abnormalities and their correction through exercise. Practice in giving examinations, planning exercise programs, and teaching corrective exercises. Prerequisite: Graduate standing. (3)

#### 202. Problems in Physical Education and Recreation

Survey of the literature, discussion of trends and current problems in physical education and recreation. Observation of school and community activities. Analysis and evaluation of a problem situation. Written reports required. Prerequisite: Graduate standing. (3)



## DIVISION OF LANGUAGES AND LITERATURE

## COMPARATIVE LITERATURE

Requirements for the minor in Comparative and General Literature: (1) a minimum of 15 units of work must be completed in courses offered by the department, at least 9 of which must be in upper division courses; (2) the work to be taken should be arranged in consultation with an instructor selected by the department.

## Lower Division Courses

## 52A-52B. Types of World Literature

For a description of this course, see English 52A-52B.

Year course (3-3)

## Upper Division Courses

## 101A. Modern Continental Fiction

For description, see English 101A.

Spring (3) (Offered in 1946-47 and alternate years)

## 104A-104B. Spanish American Literature

For a description of this course, see Spanish 104A-104B, which may be taken for credit in Comparative Literature by doing the required reading in English translation.

Year course (3-3) (Offered in 1946-47 and alternate years)

## 115. The Bible as Literature

For description, see English 115.

Spring (3) (Offered in 1946-47 and alternate years)

## 140A-140B. Masterpieces of French Literature

A cultural course designed to be given in introduction to the great French works from the Song of Roland through Cyrano de Bergerac, with emphasis on the 16th, 17th, 18th and 19th century authors. The contributions to world thinking of Rabelais, Montaigne, Moliere, Racine, Descartes, Pascal, Montesquieu, Voltaire, Rousseau, Hugo, Balzac, Flaubert, Maupassant, Zola, will be studied through lectures and outside readings.

Year course (3-3) (Offered in 1946-47 and alternate years)

## 152A. Survey of Drama: Comedy

For description, see English 152A.

Fall (3)

## 152B. Survey of Drama: Tragedy

For description, see English 152B.

Spring (3)

## 157. Primitive Myths and Rituals

For description, see Anthropology 157.

Spring (3) (Offered in 1947-48 and alternate years)

## ENGLISH

Lower division preparation for the liberal arts major in English: At least 12 units of work, including 1B, 56A, 56B. Upper division requirements for the liberal arts major: (1) at least 24 units in upper division English courses, including 18 units from the following: 116A, 116B, 117A, 117B, 118A, 118B, 119, 121, 126, 192, 193, 194; (2) selection arrangement of courses under the supervision of an adviser appointed by the English department; (3) a reading knowledge of one of the languages taught in the college: French, German, Italian, Latin, Spanish. (By "reading knowledge" is meant two full years of lower division work, or the equivalent. Further work in one of these languages, in upper division courses, is highly recommended.)

## Lower Division Courses

## 1A. Subject A: English Composition

The elements of composition, including drill in grammar and usage; exercises in vocabulary building and careful reading; theme writing. Credit in this course is equivalent to passing the English A Examination, and admits to English courses numbered from 11 to 16.

Fall and Spring (3)

## 1AA. Reading Efficiency and Vocabulary Extension

Special drill in reading for comprehension; vocabulary building; practice in elementary composition. Systematic, progressive, and intensive training and practice in effective reading and methods of study. This course may be substituted for English 1A.

Fall and Spring (3)

## 1B. Composition

Exposition is stressed. Prerequisite: satisfactory Subject A test. Not open to students who have taken English 1A or 1AA.

Fall and Spring (3)

## 8. English in Business

Theory and practice of business correspondence. Business letters as applied salesmanship; problems in writing credit and collection letters, applications for employment, adjustment letters, and sales letters. Prerequisite: English 1A or equivalent, as indicated by Subject A Examination, or record from college. This course is planned for students in Secretarial Training; units obtained in it can not be used to meet English requirements in other fields.

Fall and Spring (3)

## 10. Recreational Reading

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)

## 11. Freshman Literature—Argumentation

Principles of argument; readings in contemporary deliberation and persuasion; written and oral practice.

Spring (3)

## 12. Freshman Literature—Biography

Composition, stressing personal narrative and informal essay. Reading from field of biography and memoirs.

Fall and Spring (3)

## 13. Freshman Literature—Foundations of the Language

A course designed to make more significant the native language through a study of the elements which have gone into the composition of its vocabulary. Readings from the various periods to illustrate the changes.

Spring (3)

## 14. Freshman Literature—Periodical Literature

Composition stressing article writing of varied types. Reading from current periodical literature.

Fall and Spring (3)

## 15. Freshman Literature—Modern Drama

Composition based upon the reading of recent plays and dramatic criticism. Not a course in dramatics.

Spring (3)



**16. Freshman Literature—Modern Literature**

An introduction to literature of various types in modern European and American culture, with composition.

Fall and Spring (3)

**50A-50B. Survey of American Literature**

Semester I: A survey of American literature from its beginnings to 1860. Semester II: American literature from 1860 to the present. Lectures, discussions, and reports.

Year course (3-3)

**52A-52B. Types of World Literature**

A chronological survey from Homer to modern times. The first semester stresses the classical epic and tragedy. The second semester, beginning with the Renaissance, stresses prose fiction, the drama, and the essay.

Year course (3-3)

**56A-56B. Survey of English Literature**

The study of some important works of English literature from the Anglo-Saxon period through the Victorian age, with emphasis upon the literary history of each period.

Year course (3-3)

**Upper Division Courses****101A. Modern Continental Fiction**

A survey of leading French, Russian, Scandinavian, Italian, and German novelists and short story writers, from Tolstoy and his associates to the present day.

Spring (3) (Offered in 1946-47 and alternate years)

**101B. Modern British Fiction**

The novel and short story, especially of the last quarter of a century.

Spring (3) (Offered in 1947-48 and alternate years)

**106A-106B. Advanced Composition**

A laboratory course in modern prose writing. Semester I: Artistic narrative, with description. The short story. Semester II: The essay, the magazine article, criticism. Outside readings. Prerequisite: One year of college composition. Either semester may be taken first.

Fall, Spring (3-3)

**110. Recreational Reading**

An advanced course in the group reading of modern drama, poetry and fiction.

Fall and Spring (1)

**115. The English Bible as Literature**

A study of the narrative, poetry and prophecy of the King James version of the Bible. Readings, reports, lectures, and discussions.

Spring (3) (Offered in 1946-47 and alternate years)

**116A. The Age of Elizabeth**

Poetry and prose, exclusive of the drama.

Fall (3) (Offered in 1947-48 and alternate years)

**116B. The Elizabethan Drama**

Principal contemporaries of Shakespeare.

Spring (3) (Offered in 1947-48 and alternate years)

**117A-117B. Shakespeare**

A chronological survey. The first semester gives special emphasis to the histories and comedies; the second, to tragedy and the dramatic romances.

Year course (3-3)

**118A. The Age of Swift and Pope**

A study of the literature of the first half of the eighteenth century, with special emphasis on social satire of Swift, Pope, Addison, Steele, Gay and Prior.

Spring (3) (Offered in 1947-48 and alternate years)

**118B. The Age of Johnson**

A study of Johnson and his circle as representative of their age, together with a study of Burns, Blake, and other forerunners of the age of Romanticism.

Spring (3) (Offered in 1946-47 and alternate years)

**119. The Romantic Period: Poetry**

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

Fall (3) (Offered in 1947-48 and alternate years)

**121. The Victorian Period: Poetry**

A study of Tennyson and Browning and their contemporaries and successors, relating English poetry to nineteenth century life and thought.

Fall (3) (Offered in 1946-47 and alternate years)

**126. Nineteenth Century British Prose**

Romantic and mid-Victorian prose writers, including Coleridge, Hazlitt, Lamb, DeQuincey, Carlyle, Landor, Macaulay, Mill and Thackeray.

Fall (3) (Offered in 1946-47 and alternate years)

**127. Modern British Prose**

Late nineteenth and early twentieth century essays of Arnold, Galsworthy, Huxley, Newman, Pater, Ruskin, Shaw, Stevenson, Wells and others.

Fall (3) (Offered in 1947-48 and alternate years)

**131. American Literature: 1820-1860**

The study of the important romantic writers, with emphasis on the New England group.

Fall (3)

**132. The Frontier and American Literature**

A survey of the influence of the frontier upon American literature from colonial days to the present. Studies in source materials, biographies, and representative writers such as Cooper, Harte, Mark Twain and Rolvaag.

Fall (3) (Offered in 1946-47 and alternate years)

**133. American Fiction**

The outstanding writers of novels and short stories, from Cooper to Norris.

Spring (3) (Offered in 1946-47 and alternate years)

**134. American Literature: 1900 to the Present**

A survey of American literature since 1900 with emphasis upon contemporary poetry, fiction and drama.

Spring (3)

**143. The English Novel**

History of the English novel from the beginnings to Hardy. Extensive reading of novels with reports, lectures and discussions.

Fall (3) (Offered in 1947-48 and alternate years)

**152A. Survey of Drama: Comedy**

Studies in the field of comedy, based on selected readings from the works of Continental, English and American dramatists. Lectures, discussions, and reports on reading.

Fall (3)



**152B. Survey of Drama: Tragedy**

Procedure as in 152A with selections taken from the field of tragedy.  
Spring (3)

**166. Honors Course**

Special study. Open to members of the Honors Group in English (see page 14).  
Fall and Spring (1 to 5-1 to 5)

**191. Advanced Composition**

A course in modern prose writing. Emphasis on the narrative and the essay, particularly on the problems of effective expression as exhibited in the work of members of the class and as encountered in the work of high school students. Prerequisite: one or more college courses in composition. Open only to senior and graduate students.

Spring (3)

**192. The English Language**

An inductive approach to basic aspects of the language. The course includes an analysis of English sounds, grammar and syntax. Modern, Middle and Old English. Open only to senior and graduate students.

Fall (3)

**193. Chaucer**

A study of Chaucer's works, and a consideration of the social and literary backgrounds of the fourteenth century. Open only to senior and graduate students.

Fall (3)

**194. The Age of Milton**

A study of the literary developments of the middle and later seventeenth century, with emphasis on the work of Milton. Open only to senior and graduate students.

Spring (3) (Offered in 1947-48 and alternate years)

**195. Literary Criticism**

A historical survey of the principles and practices of literary criticism from Greek times to the nineteenth century. Readings in the works of Aristotle, Horace, Longinus, Sidney, Boileau, Dryden, Lessing, Sainte-Beuve, Coleridge and Arnold. Open only to senior and graduate students.

Fall (3)

**196. The Forms of Poetry**

Foundation materials for the appreciation of poetry, including critical concepts of the nature of the art; metrical theory; history of the leading poetic types; and the relation of poetic forms to thought, mood and environment. Open only to senior and graduate students.

Spring (3)

**199. Research: Advanced Honors Course**

Special study. Open to mature, specially qualified students, graduates, teachers of English literature, and others who have demonstrated marked aptitude for intensive research in the field of English literature.

Fall and Spring (3-5)

**Comparative Literature**

For other courses in literature, offered by members of the English Department and other departments, see Comparative Literature, page 68.

**201. Shakespeare**

A seminar on the graduate level: bibliography, critical study, special problems, criticism. Prerequisite: graduate standing. Recommended: at least one undergraduate course in Shakespeare.

Spring (3)

**221. Regionalism in American Literature**

A seminar on the graduate level: bibliography, special problems, with concentration on selected regions. Prerequisite: graduate standing. Recommended: at least one undergraduate course in American literature.

Fall (3)

**FOREIGN LANGUAGES**

The courses offered in foreign languages are listed below. See pages listed after each subject for a more complete description of the offerings under that designation. French, see below; General Language, page 74; German, page 74; Italian, page 75; Latin, page 75; and Spanish, page 75.

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, 143, 147; Aesthetics 50 or 150; English 52A, 52B, 56A, 56B, 101, 112, 116, 118A, 119, 126, 143, 152.

**FRENCH**

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.

**Lower Division 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 two units of work in French A. Those who have had two years of French in high school should register for four units of work in French B.

Year course (5-5)

**C-D. Intermediate Reading**

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 four years of high school French should register for French D.

Year course (3-3)

**SC. Scientific Reading**

Reading taken from the fields of chemistry, physics, medicine, zoology, biology, etc. Outside readings of books and periodicals. Oral and written reports. Prerequisite: French B or equivalent.

Fall (2) (Offered in 1946-47 if demand is sufficient)

**Upper Division Courses****101A-101B. Conversation and Composition**

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

Year course (3-3)

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

Plays of Musset, Scribe, Augier, Dumas fils, Pailleron, Brieux, Hervieux, Maeterlinck, Rostand, and others read and discussed as to subject matter and technique. Outside reading and reports. Prerequisite: French D, or its equivalent, with grade of C.

Year course (3-3) (Offered in 1949-50)



**107A-107B. Eighteenth Century Literature**

The works of Montesquieu, Voltaire, Rousseau, the Encyclopédistes, and others. Prerequisite: French D, or its equivalent, with a grade of C. Year course (3-3) (Offered in 1948-49)

**110A-110B. Modern French Novel**

The French novel from Victor Hugo to the present day, including such authors as: Hugo, Dumas, Stendhal, Balzac, Flaubert, Loti, Anatole France, Bourget, Bordeaux, Bazin, Barrès, Romain Rolland, A. Gide, Marcel Proust, and others. Class and outside reading and reports. Prerequisite: French D, or its equivalent, with Grade of C.

Year course (3-3) (Offered in 1947-48)

**111A-111B. Seventeenth Century Dramatic Literature**

Reading in class of plays of Molière, Corneille, and Racine. Outside readings and lectures on the background of the seventeenth century in France. Prerequisite: French D or its equivalent, with a grade of C.

Year course (3-3)

**199. Comprehensive Reading and Survey Course**

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 French. Spring (3)

**GENERAL LANGUAGE****Lower Division Course****A. Latin and Greek Word Derivation**

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.

Fall (2)

**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 two units of work in German A. Those who have had two years of German in high school should register for four units of work in German B.

Year course (5-5)

**C-D. Intermediate Review and Reading**

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

Year course (3-3)

**SC-SD. Scientific Reading**

Fall 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 two years of high school German; German SD-German SC, German C, with a grade of C, or three years of high school German.

Year course (3-3) (Not offered in 1946-47)

**ITALIAN****A-B. Elementary**

Intensive study of Italian grammar and syntax, with daily written work; class drill in conversational idiom and pronunciation; reading of works by contemporary writers. Credit not given for Italian A unless followed by Italian B. Students who have had one year of Italian in high school should register for Italian A. Those having two years in high school should register for Italian B.

Year course (5-5)

**LATIN****C-D. Intermediate**

Readings from Latin writers. First semester: Caesar. Second semester: Cicero and Ovid. Prerequisite: Two years of high school Latin or the equivalent.

Year course (3-3) (Not offered in 1946-47)

**SPANISH**

Lower division preparation for the liberal arts major in Spanish: Spanish A-B-C-D; French A-B; History 4A-4B or SA-8B.

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.

**Lower Division Courses****A-B. Elementary**

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

Year course (5-5)

**C-D. Intermediate Spanish**

Reading and composition: study of standard prose as basis for class work; collateral reading in prose and drama, with written reports in Spanish; dictation. Class work conducted mainly in Spanish. Individual conferences. Prerequisite: Spanish B or three years of high school 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)

**50. Spanish Commercial Correspondence**

A one-semester intermediate course in Spanish composition, directed along the line of commercial correspondence. A practical course, with translation of real business letters, and supplementary reading in Spanish on commercial subjects. Prerequisite: three years of high school Spanish, or completion of Spanish B. This course may substitute for Spanish C in the C-D sequence.

Fall (3)

**Upper Division Courses****101A-101B. Conversation and Composition**

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

Year course (3-3) (Offered 1947-48)

**102A-102B. Introduction to Spanish Classics**

Reading from several types of classical literature. Lazarillo de Tormes and other novels of Roguery; 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**

Reading from representative Spanish-American authors during the colonial, revolutionary and modern periods. Lectures, class reading, collateral reading and reports. Prerequisite: A grade of C in Spanish D or permission from the instructor. Students who do not read Spanish may take this course for credit in comparative literature, doing the required reading in English translation.

Year course (3-3) (Offered in 1946-47)

**105A-105B. Modern Spanish Drama**

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 1947-48)

**110A-110B. Novel and Short Story in Spain**

The development of the novel and short story in Spain from 1830 to the present time. Prerequisite: A grade of C in Spanish D or permission from the instructor.

Year course (3-3) (Offered in 1949-50)

**199. Comprehensive Reading and Survey Course**

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)

**JOURNALISM****Lower Division Courses****51A-51B News Gathering and Reporting**

Study of news sources and types; practice in news and feature writing; newspaper organization; excursions and special lectures. Course planned for freshmen as a prerequisite to positions on all college publications.

Year course (3-3)

**53A-53B Applied Journalism**

Practice and projects in reporting news and feature stories and in other editorial work on *The Aztec*, *El Palenque*, *Del Sudoeeste*.

Fall and Spring (1 to 3; 1 to 3)

**SPEECH ARTS**

Lower division preparation of the Liberal Arts major in Speech Arts: At least 18 units of lower division courses in Speech Arts, including 1A, 1B, and six units chosen from 55A, 55B, 55C, 55D. Recommended: Aesthetics 1A, 1B, 50; Art 52A, 94.

Upper division requirements for the Liberal Arts major in Speech Arts: At least 18 units in upper division courses in Speech Arts, including 150, 163A, and six units from 155, 156A, 156B, 193. Also required: six units from English 117A, 117B, 152A, 152B, 192. Recommended: English 110, 116B; French 105A, 105B; Physical Education 164A, 164B; Spanish 105A.

Candidates for the teaching credentials in Speech Arts should refer to "Admission to Teacher Education Curricula" on page 21 or to the note regarding the Special Credential in Speech Arts on page 32.

**Lower Division Courses****1A. Fundamentals of Public Speaking**

Training in fundamental processes of oral expression; method 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)**

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.

Fall and Spring (3)

**1C. Oral Interpretation**

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 in English literature.

Fall and Spring (3)

**1D. Advanced Interpretation**

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**

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**

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 and developed in production of scenes, acts, and plays—a fundamental drama course emphasizing modern trends. No prerequisite.

Year course (3-3) (Offered in 1947-48 and alternate years)

**55C-55D. Dramatic Expression**

A course to help students realize and develop their creative abilities for expressing life and character through acting and writing. History, technique and theory of various dramatic forms studied, created and presented through workshop methods. A fundamental course planned for students desiring specialized training in drama or writing. Prerequisite: Consent of instructor.

Year course (3-3) (Offered in 1946-47 and alternate years)

**57A-57B. Radio Production**

Designed to present the background, theory and fundamentals of broadcasting. A basic course for radio speaking and writing.

Year course (2-2)

**60. Argumentation and Debate**

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.

Spring (3)

**61A-61B-61C-61D. Intercollegiate Debate**

Year course, each year (1)

**63A-63B-63C-63D. Verse Choir**

Participation in verse speaking chorus to develop quality, range of tone, and ability in dramatic visualization of poetry. Required for speech arts credential.

Fall and Spring (1-1)



## Upper Division Courses

## 108. Art of Interpretation

Analysis of various types of literature. Material chosen will emphasize the finer techniques of oral expression to develop the imagination, the emotional power, reading skill and platform deportment in its varied phases. Prerequisite: one year of college speech or equivalent.

Spring (3)

## 110. Recreational Reading

For description, see English 110.

Fall and Spring (1)

## 116B. The Elizabethan Drama

For description, see English 116B.

Spring (3) (Offered in 1947-48 and alternate years)

## 117A-117B. Shakespeare

For description, see English 117A-117B.

Year course (3-3)

## 150. Phonetics

Auditory and kinaesthetic analysis of the sounds of the English language. Valuable as a corrective course in pronunciation and articulation. Required of speech majors and those seeking the Speech Correction Credential.

Fall (3)

## 152A. Survey of Drama: Comedy

For description, see English 152A.

Fall (3)

## 152B. Survey of Drama: Tragedy

For description, see English 152B.

Spring (3)

## 155. Advanced Dramatic Expression

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 developed in relation to various subjects and activities conducted through individual research projects, group discussion and participation. Original work encouraged. Prerequisite: A fundamental drama course.

Spring (3) (Offered in 1947-48 and alternate years)

## 156A-156B. Advanced Dramatic Production

The study of more difficult dramatic types and periods in the production of poetic and prose literature of different countries. Arrangement, organization, creation, direction and presentation of classroom, recreational and other forms of performances. Practical participation and demonstration. A course designed for students majoring in other subjects as well as the theater arts.

Year course (3-3) (Offered in 1946-47 and alternate years)

## 157A-157B. Advanced Radio Production

Preparation and production of radio plays and various types of radio material.

Year course (3-3) (Offered in 1946-47 and alternate years)

## 158. Advanced Radio Techniques

Designed to enable experienced students to specialize in different fields of the radio. Special attention given to original preparation and production of various types of radio material including plays, transcriptions, etc. Permission of instructor necessary for registration.

Fall (3) (Offered in 1947-48 and alternate years)

## 163. Rhythm, Pantomime and Choric Verse

A course combining bodily movement with group speaking. Presents the fundamentals of rhythm and pantomime in different forms of dramatic expression.

Spring (3) (Offered in 1947-48 and alternate years)

## 175. Major Speech Disorders

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)

## 191. Organized Discussion

Consideration of the symposium, the panel, the open forum, the business session, and varieties of conference speaking. Emphasis upon organization and presentation. Attention to parliamentary procedure for informal groups. Open only to senior and graduate students.

Fall (3)

## 192. The English Language

For description, see English 192.

Fall (3)

## 193. Advanced Dramatic Interpretation

A more advanced treatment of the types of work included in Speech Arts 155. Prerequisite: A fundamental course in drama. Open only to senior and graduate students.

Fall (3)

## 194. Advanced Radio Techniques

Preparation and production of radio drama and different types of continuity. Experience at professional studios. Emphasis upon radio in education. Broadcasting. Open only to senior and graduate students.

Spring (3)

## 201. Advanced Rhythm, Pantomime and Choric Verse

History and appreciation of their use in drama, modern applications including motion picture, radio and television. Demonstrations. Prerequisite: graduate standing.

Spring (3)

## 221. Articulatory Problems of Speech

Analysis and discussion of articulatory problems as encountered in public school work, particularly in California. Required of all students for the speech correction credential. Prerequisite: graduate standing and Speech Arts 150.

Fall (3)



## DIVISION OF LIFE SCIENCES

## BIOLOGICAL SCIENCES

The courses offered in Biological Sciences are listed below. Anatomy, see Zoology, page 81; Physiology, page 81; and Zoology, page 81.

## BACTERIOLOGY

## Lower Division Courses

## 1. General Bacteriology

An introduction to bacteriology. Effects of physical and chemical agencies upon bacteria; biochemical activities of bacteria; microscopic examination and cultivation of bacteria; the bacteria of air, water, soil, milk and dairy products, other foods; industrial applications. Introduction to disease-producing bacteria. Required of pre-nursing students. Two hours of lecture and six hours of laboratory per week. Prerequisite: Chemistry 1A or 2A.

Fall (4)

## 199. Special Problems

Work other than is outlined in the regular courses. Admission only by consent of the instructor with whom the work is to be done. Credit and hours to be arranged in each case. Open to students who have completed at least fifteen units of work in the department (including courses in Bacteriology and Chemistry) with grades of A or B.

Fall or Spring (1 or 2)

## BIOLOGY

## Lower Division Courses

## 1. Survey of Biology

A survey of life science, stressing the development of modern concepts in the fields of plant and animal science, bacteriology, genetics, and physiology. Emphasis is placed on the relationships of biology to modern life and the application of scientific analysis to every day problems. Three lectures and one hour of demonstration and discussion per week. Not open to students with credit for Biology 10A-10B, Zoology 1A-1B, or Botany 2A-2B.

Fall (3)

## 10A-10B. General Biology

A year course in life science, more extensive than "Biology 1." Continues throughout the year and includes a three-hour laboratory period, and two hours of lectures 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, Biology 1, or Botany 2A. Students who have taken 10A-10B may elect Zoology 1B or Botany 2A, 2B for credit.

Year course (3-3) Begins in Fall only

## A. Mathematics of Solutions and Dosage

Arithmetic review with computing of dosage, percentage of solutions, apothecaries weights and graph making. Two hours per week.

Fall (2)

## BOTANY

Lower division preparation for advanced work in botany: Botany 2A, 2B, 4, and Chemistry 1A, 1B, 8. Recommended: German, French, and elementary courses in other biological sciences.

## Lower Division Courses

## 2A. General Botany

Fundamentals of structure and general behavior of seed plants. Two lectures or recitations and six hours of laboratory per week.

Fall (4)

## 2B. General Botany

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 keys. One lecture and three hours laboratory per week. Occasional Saturday field trips.

Spring (2)

## 5. Cultivated Trees and Shrubs

Recognition of the common cultivated trees and shrubs of the San Diego region. Trips to local parks and private gardens. Three hours per week laboratory or field work.

Fall (1) (Not offered in 1946-47)

## 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 1945-46 and alternate years)

## 104. Plant Taxonomy

Identification, classification and distribution of representative orders of flowering plants. One hour of lecture and six hours per week of laboratory and field work. Prerequisites: Botany 2A-2B, or 4.

Spring (3) (Offered in 1945-46 and alternate years)

## 199. Special Problems

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

Fall and Spring (1 or 2)

## PHYSIOLOGY

## Lower Division Courses

## 1A. Human Physiology

A lecture course considering the functions of the human body. Prerequisites: Elementary chemistry and high school or college biology or zoology. Three hours of lecture per week. Credit reduced to 2 units, for students having credit for Zoology 20.

Spring (3)

## 1C. Human Physiology

A study of the human functions through laboratory experiments and demonstrations. Prerequisites: Physiology 1A completed or in progress. Six hours of laboratory per week.

Spring (2)

## ZOOLOGY

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

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, chemistry, physics, physiology or bacteriology.



Students preparing to teach science in the junior high school should try to include courses in zoology, botany, physiology, bacteriology, physics, chemistry (at least high school chemistry). Courses designed to help the student get acquainted with wild life of the region should be included. Recommended: Botany 4, 104, 102; Zoology 112, 113A, 113B, 121.

#### Lower Division Courses

##### 1A. General Zoology

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. Valuable to the general student as well as to the biology specialist, acquainting him with the fundamental facts and theories of biology as they pertain to animal life. Two lectures and six hours of laboratory per week. Students who have credit for Biology 10A-10B receive no credit for Zoology 1A but receive credit for Zoology 1B.

Fall (4)

##### 1B. General Zoology

A continuation of 1A. The structure, relationships, and classification of the chordates. Two lectures and six hours of laboratory per week. Prerequisite: Zoology 1A or Biology 10B.

Spring (4)

##### 4. Microtechnique

Introduction to methods of preparation of tissues for microscopic study. Six hours of laboratory per week and one hour of lecture. Prerequisite: elementary chemistry and biology.

Spring (3)

##### 8. Human Anatomy

A study of human structure through the use of models, prepared dissections and microscope slides. Prerequisite: high school biology, Biology 10A, 1, or Zoology 1A. Two hours of lecture and three hours of laboratory per week. Required of prenursing students. Credit reduced to 2 units if student has credit for Zoology 20.

Fall (3)

##### 20. Human Anatomy and Physiology

An elementary course in human anatomy and physiology. Prerequisite: High school biology, or Biology 1 or 10A or Zoology 1A. Lectures three hours per week. Credit reduced to 2 units if student has credit for Zoology 8 or Physiology 1A.

Fall and Spring (3)

#### Upper Division Courses

##### 100. Embryology

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

Spring (4)

##### 104. Microtechnique

Introduction to methods of preparation of tissues for microscopic study. Six hours of laboratory and one hour of lecture per week. Prerequisite: elementary chemistry and biology.

Spring (1)

##### 106. Comparative Anatomy of the Vertebrates

Dissection, study and comparison of organ systems of typical vertebrates. Two hours per week of lecture and six hours of laboratory. Prerequisite: Zoology 1B or Biology 10B.

Fall (4)

##### 108. Human Anatomy

Lectures and laboratory work of Human Anatomy 8 with an additional hour of seminar each week. Open only to upper division students by special arrangement.

Fall (3)

##### 112. Marine Invertebrates

Identification and study of behavior and life histories of invertebrates of the San Diego region. Frequent collecting trips to the beaches required. Prerequisite: Zoology 1A or Biology 10B. One hour of lecture and six hours of laboratory or field work per week.

Fall (3)

##### 113A. Taxonomy and Natural History of the Mammals

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

Spring (1)

##### 113B. Ornithology

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 Biology 10B.

Spring (3)

##### 114A. Genetics

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

Fall (2)

##### 114B. Evolution

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

Spring (2)

##### 121. General Entomology

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

Spring (3)

##### 122. Systematic Entomology

Classification of insects with especial emphasis on a group of insects of the student's choice. To be taken with or to follow 121. May be repeated for credit but with a total of not more than 3 units. Three to six hours of laboratory work each week.

Spring (1 or 2)

##### 123. Economic Biology

Study of the uses of plants and animals to man and the ways in which they injure him and his possessions. Consideration is also given to general methods of control and conservation. Prerequisite: Zoology 1A, Biology 1, or Biology 10B.

Fall (2)

##### 124. Scientific Illustration

Instruction and practice in various methods used to illustrate scientific publications. Recommended course in preparation for this one: Art A-B.

Fall (2)



**126. Medical Entomology**

The role of insects and other arthropods in transmission and causation of human diseases. Three hours of laboratory and two hours of lecture per week. Prerequisite: Zoology 1A or Biology 10B.

Fall (3)

**130. Readings in Biology**

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

Spring (2)

**199. Special Study**

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

Fall and Spring (1 or 2)

**DIVISION OF PHYSICAL SCIENCES****ASTRONOMY**

Lower division preparation in Astronomy desirable for advanced work: Astronomy 1, 2, 3, and 9; Mathematics 3A-3B, 4A-4B; Physics 1A-1B and 1C-1D; a reading knowledge of French and German desirable.

**Lower Division Courses****1. Descriptive Astronomy**

A cultural course planned to develop an appreciation of astronomy with special emphasis on the solar system. Only calculations of an elementary nature are used. Especial attention given to the methods and instruments by means of which astronomical knowledge has been gained. A six-inch John Byrne refractor and an eight-inch reflecting telescope are available for observation. Prerequisites: Elementary algebra and plane geometry.

Fall and Spring (3)

**2. Modern Astronomy**

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 the instructor.

Spring (3)

**3. Surveyor's Course in Practical Astronomy**

The principles of spherical astronomy adapted to the needs of engineering students. Computation and observation. Prerequisite: Surveying 1A or permission of the instructor. Astronomy 1 and 9 desirable.

Spring (2)

**9. Practice in Observing**

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 the instructor.

Fall or Spring (1)

**12. Elementary Navigation**

A study of compass corrections, drift problems, time, line of position, use of celestial coordinates, Bowditch Tables, etc. A few class hours at the close of the term are devoted to the use of tables such as Ageton, Dreisonstok and H. O. 214 for the solution of astronomical triangle. Offered if demand is sufficient. Prerequisite: Astronomy 1 or permission of instructor.

Fall (2)

**Upper Division Courses****100. Special Problems**

Admission by consent of instructor. Credit and hours to be arranged in each case. Open to students who have completed three units in astronomy.

Fall and Spring (1 or 2)

**105. Historic Development of Astronomy**

A study of the more important problems and astronomical concepts in the light of their historical development. Particular attention is given to the biography and contributions of the more important astronomers, such as, Galileo, Kepler, Newton, Herschel, and Bessel.

Spring (3)

**107. Method of Least Squares and Computing Practices**

Fundamental principles and processes and applications in the fields of astronomy, physics, and engineering.

Spring (3) (Not offered in 1946-47)



## CHEMISTRY

Lower division preparation for the liberal arts major in chemistry: 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 certain other colleges 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 105A-105B, 110A-110B and 111A-111B. The choice of related minors 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 92.

## Lower Division Courses

## 1A-1B. General Chemistry

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)

## 2A-2B. General Chemistry

A general course for those not intending to take advanced courses in chemistry. The work in the first semester stresses inorganic chemistry and fundamental principles; that of the second semester covers an introduction to organic and biochemistry. Emphasis placed on applications of chemistry to everyday life. Two lectures and one laboratory period per week. Required of pre-nursing students and recommended for those desiring chemistry as part of a liberal education.

Year course (3-3)

## 7-8. Organic Chemistry

A general consideration of the carbon compounds (both aliphatic and aromatic) and their derivatives; their synthesis constitution, and properties, 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

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

Fall (3)

## 105B. Advanced Quantitative Analysis

Advanced work in the theory and practice of volumetric, gravimetric and electroanalysis. One lecture and two laboratory periods per week. Prerequisite: Chemistry 105A.

Spring (3)

## 110A-110B. Physical Chemistry

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

Year course (3-3)

## 111A-111B. Physical Chemistry—Laboratory

Physico-chemical problems and measurements. Two laboratory periods per week. Prerequisites: Credit or registration in Chemistry 110A-110B.

Year course (2-2)

## 112A-112B. Industrial Analysis

A laboratory course including the analysis of fuels, petroleum products, water, and gas. Prerequisite: Chemistry 105A which may be taken concurrently. (3-3)

## 114. Biochemistry

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 7, 8.

Spring (3) (Offered in 1947-48 and alternate years)

## 118. Colloid Chemistry

A lecture course covering the theoretical principles of colloid chemistry and the preparation, properties and practical applications of colloids. Prerequisite: Chemistry 7-8.

Fall (2) (Offered in 1946-47 and alternate years)

## 123-124. Organic Preparations

A laboratory course illustrating some of the more important synthetic methods of organic chemistry. Laboratory and conferences. Prerequisite: Chemistry 7-8. A reading knowledge of German recommended.

Beginning either Fall or Spring (1 to 5—1 to 5)

## 125. History of Chemistry

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 7, 8.

Fall (2) (Not offered in 1946-47)

## 127. Advanced Inorganic Chemistry

A detailed study of the Periodic Table. Discussion of complex inorganic compounds and oxidation-reduction potentials. Prerequisite: Chemistry 1A-1B and upper division standing.

Fall (2) (Offered in 1946-47 and alternate years)

## 144. Industrial Chemistry

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

Spring (3)

## 199. Special Problems

Supervised individual work in specialized branches of chemistry. 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)

## ENGINEERING

(For curriculum in engineering see pages 36-37)

## Lower Division Courses

## 1A-1B. Plane Surveying

Use and adjustment of surveying instruments, computations and map-making, together with a study of land, topographic, city, and mine surveying. Two instruction periods and one three-hour period for field work and mapping each week. Pre-



requisites: Trigonometry and Mechanical Drawing, or equivalent, and sophomore standing.

Year course (3-3)

### S3. Summer Class in Surveying

Practical field problems in reconnaissance, triangulation, location and topographic surveys. Observations for meridian, time and latitude. Precise work in linear and angular measurements. Development of self-reliance, accuracy, and professional skill on the part of the student. Four weeks course held in the mountains near San Diego. For details regarding 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. Prerequisite: Surveying 1A-1B.

Summer (3)

### 21. Descriptive Geometry

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

Design and drawing of simple machine parts with emphasis upon the production of standard drawings. Lectures and drafting. Prerequisite: Engineering 21, Mathematics 3A-3B.

Spring (3)

### 23. Materials of Construction

Manufacturing processes, structural properties and adaptability of the principal materials used in engineering. Lectures; Prerequisite: Sophomore standing.

Spring (2)

#### Upper Division Courses

### 100A-100B. Elements of Electrical Engineering

Theory and characteristics of electrical equipment with emphasis on industrial applications.

100A. Direct current circuits, generators and motors. Introduction to alternating current circuits.

100B. Alternating current circuits, transformers, alternators, induction on synchronous motors, conversion apparatus and transmission lines.

Lectures and problems. Prerequisites: Mathematics 4A, Physics 1C or permission of the instructor.

Year course (3-3) (Offered in 1947-48 and alternate years)

### 105. Hydraulics

A general course in hydraulics including the fundamental principles of hydrostatics and hydrodynamics applied to the flow of water through orifices, over weirs, through pipes and canals. Lectures and problems. Prerequisites: Mathematics 4A, Physics 1C. Recommended: Physics 105A-105B.

Spring (3) (Offered 1946-47 and alternate years)

### 123. Materials of Construction

Essentially the same as Engineering 23 except that students will be expected to investigate more fully some particular material or process and prepare a written report upon it. Prerequisites: Chemistry 1B, Junior standing.

Spring (2)

### 128. Elements of Heat Power Engineering

Fundamental consideration of fuels, combustion, steam, boilers, furnaces, chimneys, steam engines, steam turbines and auxiliaries, internal combustion engines. Lectures and Problems. Prerequisites: Mathematics 4A, Physics 1B.

Fall (3) (Offered 1946-47 and alternate years)

## GEOLOGY

Department requirement in Geology for liberal arts major in Physical Science includes in addition to Geology 1A-1B, the completion of: Chemistry 1A-1B, Physics 1A-1B-1C-1D or 2A-2B; 3A-3B. Students preparing for advanced work in Geology may add Engineering 21 and Geology 21A. Geology 2A may be substituted for Geology 1A in department prerequisite requirements provided the additional necessary unit of laboratory work is completed.

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

#### Lower Division Courses

### 1A. Physical

The composition, origin, and distribution of earth materials, and their modification through mechanical and chemical process of change. Three lectures and one three-hour laboratory period weekly with related field study during the semester. (Not open to students who have had Geology 2A except for one unit upon the completion of the laboratory section.)

Fall (4)

### 1B. Historical

Theories of earth origin, and the evolutionary history of the earth as traced through rock and fossil records. Consideration of the Paleontologic Sequence. Three lectures and one three-hour laboratory period weekly, with arrangement for field study and conference during the semester. Prerequisite: Geology 1A or equivalent.

Spring (4)

### 2A. General

Similar to Geology 1A but without laboratory. Emphasis upon origin and development of earth's surface features. Open to all students except physical science majors or those already presenting credit in Geology 1A. Two lectures and one demonstration and discussion hour weekly.

Fall (3)

### 2B. Physiography of United States

A study of the land forms of the United States and their physiographic history as illustrative of universal geologic conditions. Two lectures and one discussion hour weekly. Prerequisite: Geology 1A or 2A.

Spring (3)

### 21A-21B. Mineralogy

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 1946-47 and alternate years)

#### Upper Division Courses

### 100. Structural Geology

The evolution and description of the structural and topographical features of the earth. Faulting, folding, and orogenic forces with practical illustrations from the North American Continent and emphasis on California geologic conditions. Lectures, discussions, and occasional field trips. Prerequisite: Geology 1A-1B or 2A-2B.

Fall (3) (Offered in 1947-48 and alternate years)

### 101. Geologic Problems

Reconnaissance of adjacent areas with elementary mapping; or directed reading and group discussion of California Geology; or selection and preparation of materials for the museum collections. Prerequisite: Geology 1A-1B. Registration subject to approval of instructor.

Fall and Spring (1-4)



## MATHEMATICS

Lower division preparation for the liberal arts major in mathematics: Mathematics 3A, 3B, 4A, with an average grade of C or better. Two or more of the following are recommended: Astronomy 1, Economics 1A-1B, 2, Engineering 21, French A-B, German A-B, Physics 1A-1B or 2A-2B, Surveying 1A.

Liberal arts major (upper division): Twenty-four units including at least eighteen in upper division mathematics, the others being selected from Astronomy 107, Chemistry 111A-111B, 144, Physics 105A-105B, 112 and other approved courses. The major should be arranged in consultation with the chairman of the department and completed with a grade of C or better.

## Recommended Minor

## Lower Division

The student in the lower division is introduced to analytic geometry, which in turn shows the varied relations existing between algebra, geometry, and trigonometry, all of these merging in the calculus. Constant use of arithmetic is found in the applied courses.

The courses taken in the lower division will vary according to the student's accomplishment in high school and to his aptitude in the subject. He will be guided by the counsel of the departmental representative regarding preparatory courses. All students will take the core course, Mathematics 3A-3B, or its equivalent. Many will be able to take 4B as well. One of the following applied courses in Mathematics should be included in the fifteen semester units of lower division or in the upper division: Economics 2, Mathematics of Finance; Engineering 1A, Plane Surveying; Engineering 21, Descriptive Geometry; Astronomy 1, Descriptive Astronomy; Physics 1A or 2A, Mechanics; Economics 140, Statistics.

## Upper Division

Not less than nine semester units to be selected under the guidance of the departmental representative from the following: Mathematics 101, 104, 106, 111, 117, 119.

## Description of Courses

Refer to the College Bulletin, page 87, for description of courses in Engineering; page 85 for Astronomy; page 92 for Physics; page 99 for Economics.

## Lower Division

## A-B. Basic Mathematics

A year course roughly equivalent to the two year sequence in algebra and geometry as given in the high school. More time is given to arithmetic and numerical trigonometry and less to demonstrative geometry.

Year course (3-3)

## C. Intermediate Algebra

The course begins with an extensive review of elementary algebra. Topics covered include quadratic equations, simultaneous equations, ratio and proportion, variation, arithmetic and geometric progressions, binomial expansion and logarithms. It is equivalent to the second year-course in high school algebra. Prerequisite: Elementary Algebra and Geometry or Mathematics A-B.

Fall and Spring (4)

## D. Trigonometry

Roughly equivalent to the high school course in plane trigonometry but with more attention than is often given to those aspects needed in analytic geometry and calculus. Prerequisites: Intermediate algebra.

Fall and Spring (3)

## E. Solid Geometry

A course in intuitive solid geometry with much attention to the calculation of surfaces and volumes for the simpler solids and for certain others used in industry. Prerequisite: Intermediate algebra.

Fall (2)

## S. Slide Rule

Theory and use of the slide rule. Practice in performing the fundamental operations of arithmetic. Some attention is given to more involved computations. Prerequisites: Intermediate algebra and either trigonometry or solid geometry. The class meets twice a week.

Fall and Spring (1)

## 1. College Algebra

Review of algebra and trigonometry. New material includes identities, graphs, solution of algebraic and trigonometric equations, determinants, and mathematical proofs. Prerequisites: Two years of algebra, and trigonometry.

Fall and Spring (3)

## 3A. Plane Analytic Geometry

Equations and loci, conic sections, coordinate transformations, cartesian and polar coordinates, and parametric representation. Prerequisites: Algebra, plane geometry, intermediate algebra, and plane trigonometry, with a high degree of proficiency, or a satisfactory grade in Mathematics 1, College Algebra. In order to determine the degree of proficiency, examinations in intermediate algebra and plane trigonometry will be given during the first week of the semester. Students falling below the required standard will be assigned to Mathematics 1.

Fall and Spring (3)

## 3B. First Course in Calculus

Introduction to differential and integral calculus, with applications to problems involving variable rates and summations. Prerequisites: Mathematics 3A.

Spring (3)

## 4A. Second Course in Calculus

Differentiation, integration, infinite series, and a brief treatment of solid analytic geometry. Prerequisite: Mathematics 3B. Solid geometry is recommended.

Fall (3)

## 4B. Third Course in Calculus

Partial differentiation, successive integration, and applications. Prerequisites: Mathematics 4A.

Spring (3)

## Upper Division Courses

## 101. Elementary Geometry for Advanced Students

Non-Euclidean Geometry, transformations, constructions with ruler and compasses, and famous problems. Prerequisites: Mathematics 4A.

Fall (3) (Offered 1946-47 and alternate years)

## 104. History of Mathematics

History of mathematics down to early modern times. Prerequisite: Mathematics 3A-3B.

Fall (3) (Offered in 1947-48 and alternate years)

## 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: Mathematics 3A-3B.

Fall (3) (Offered in 1947-48 and alternate years)

## 111. Theory of Algebraic Equations

Determinants, complex numbers, and theory of algebraic equations. Prerequisite: Mathematics 3A and 3B.

Spring (3) (Offered in 1946-47 and in alternate years)



**117. Intermediate Calculus**

Essentially the same as Mathematics 4B with additional special work for advanced students. Prerequisites: Mathematics 3A, 3B, and 4A. Credit not allowed for both 4B and 117.

Spring (3)

**119. Differential Equations**

Ordinary differential equations of first and second order, with applications. Prerequisite: Mathematics 4A-4B (4B concurrently if desired).

Spring (2) (Offered in 1947-48 and alternate years)

**140. Probability and Statistics**

Statistical theory and method from the mathematical standpoint; applications in social and natural science. Prerequisite: Mathematics 4A.

Fall (3) (Offered in 1946-47 and alternate years)

**199. Special Study**

Study of materials mainly supplementary to the courses listed above. Prerequisites: Average grade of B or better in at least 12 units beginning with Mathematics 3A.

Fall and Spring (1 or 2, each semester)

**PHYSICAL SCIENCE**

Lower division preparation for the liberal arts major in physical science and for the junior certificate: Fulfillment of the respective departmental lower division requirements for upper division work in at least two of the following sciences: Astronomy, chemistry, geology, and 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.

**Lower Division Courses****1A. Introduction to Physical Science**

A survey course dealing with the nature of man's physical universe. Emphasis will be upon materials chosen from topics in astronomy and physics to show the nature and development of the scientific method and man's use of energy. Not open to students who have had a high school or college course in either physics or astronomy. May be taken with or without plans to continue with 1B.

Fall and Summer (3)

**1B. Introduction to Physical Science**

A continuation of Physical Science 1A. Emphasis will be upon units chosen from geology and chemistry to show the origins of natural materials and their use by man in the modern world. Not open to students who have had a high school or college course in either chemistry or geology. May be taken with or without credit in Physical Science 1A.

Spring (3)

**10. Elementary Photography**

This course seeks to provide an elementary knowledge of dark room techniques and the theory of photography including printing, enlarging, and developing. Two lectures and one three-hour laboratory required each week.

Fall and Spring (3)

**PHYSICS**

Lower division preparation for the liberal arts major in physics and for the junior certificate: Physics 1A-1B-1C-1D; Chemistry 1A-1B; Mathematics 3A-3B and 4A-4B, or their equivalents. Recommended: A reading knowledge of French and German. A maximum of 12 units of lower division physics may be applied toward the degree.

Liberal arts major (upper division) in physics, required: Twenty-four units of upper division work in physics including Physics 105A-105B and 110A-110B.

Six of the twenty-four units may be elected in related subjects and deviations from these requirements may be made on consultation with the chairman of the department.

**Lower Division Courses****1A. Mechanics of Solids**

A development of the fundamental ideas which underlie the subject of physics and the application of them in the discussion of practical problems. Lectures, text-assignments, problem sets, and experimental laboratory work. Two lectures, and one laboratory period each week. Prerequisites: High school physics or chemistry, and trigonometry. Students deficient in any part of this requirement may enroll with permission of the instructor.

Fall (3)

**1B. Mechanics of Fluids and Heat**

A continuation of Physics 1A. Two lectures and one laboratory period each week.

Spring (3)

**1C. Electricity and Magnetism**

A continuation of Physics 1A and Physics 1B in the sophomore year. Two lectures and one laboratory period each week.

Fall (3)

**1D. Sound and Light**

A continuation of Physics 1A, Physics 1B, and Physics 1C. Two lectures and one laboratory period each week.

Spring (3)

**2A. General Physics**

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

Fall (3)

**2B. General Physics**

A continuation of Physics 2A. Sound, light, electricity, and magnetism.

Spring (3)

**3A. Physical Measurements**

Laboratory work in mechanics and heat. Usually taken in conjunction with Physics 2A.

Fall (1)

**3B. Physical Measurements**

Laboratory work in sound, light, and electricity. A continuation of Physics 3B. Usually taken in conjunction with Physics 2B.

Spring (1)

**Upper Division Courses****\*105A-105B. Analytical Mechanics**

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 (3-3)

**\*106. Optics**

A review of reflection, refraction and dispersion, with applications to optical instruments, followed by a survey of phenomena indicative of the physical nature of light: interference, diffraction, polarization, and spectral radiation. Prerequisite: Eight units in physics.

Fall (3)

\* Will be offered if there is sufficient demand.



**\*106L. Optical Measurements**

Laboratory work to accompany Physics 106.

Fall (1)

**\*107A-107B. Electrical Measurements**

Laboratory work designed to accompany Physics 110A-110B. Emphasis placed on the theory and use of electrical measuring instruments.

Year course (1 or 2 units for the year) (Offered in 1947-48 and alternate years)

**\*108. Modern Physics**

An introduction to physical investigations of the last half-century. Atomic structure and quantum theory in the light of high-vacuum phenomena, series in optical spectra, natural and induced radioactivity, and allied subjects. Prerequisite: Eight units in physics.

Spring (3)

**\*108L. Modern Physics Laboratory**

Laboratory, to accompany Physics 108.

Spring (1)

**\*110A. Introduction to Electricity and Electromagnetism**

Elements of the mathematical theory of electrostatics, of magnetostatics and magnetism, and of steady and varying currents. Students are encouraged to accompany the course with 1 unit of laboratory work. Prerequisites: Eight units in physics, and Mathematics 3A-3B.

Fall (3) (Offered in 1947-48 and alternate years)

**\*110B. Principles of Electromagnetism and Electronics**

A more complete study and an extension of the material surveyed in Physics 110A, illustrated with practical applications. Prerequisites: Physics 110A and consent of the instructor.

Spring (3) (Offered in 1947-48 and alternate years)

**\*112. Advanced Heat and Thermodynamics**

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) (Not offered in 1946-47)

**\*112L. Advanced Heat Laboratory**

Laboratory work in thermal expansion, specific heat, heat of combustion, radiation and other related topics in advanced heat. Designed to accompany Physics 112.

Spring (1) (Not offered in 1946-47)

**\*113L. Pyrometry Laboratory**

Laboratory work in the calibration and use of various temperature measuring devices. Prerequisite: Eight units in physics.

Spring (1) (Offered in 1947-48)

**\*114. Sound Waves and Acoustics**

A study of wave motion and its applications to the production, transmission and reception of sound. Architectural acoustics, speech and hearing, acoustical and musical instruments. Prerequisite: Eight units in physics.

Fall (3) (Offered in 1947-48)

**\*114L. Advanced Sound Laboratory**

Laboratory work in the problems of wave motion, standing waves, velocity of sound in various media, diffraction and interference, of sound. Designed to accompany Physics 114.

Fall (1) (Offered in 1947-48)

\* Will be offered if there is sufficient demand.

**115L. Applied Acoustical Measurements**

Laboratory work in various practical applications of acoustics. Directional and frequency characteristics of loudspeakers and microphones. Architectural acoustics. Prerequisite: Eight units in physics.

Fall (1) (Not offered in 1946-47)

**199. Special Study**

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 grade of A or B.

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



## DIVISION OF SOCIAL SCIENCES

## ANTHROPOLOGY

Lower division preparation for the liberal arts general major with concentration in anthropology: Anthropology 1A-1B, Sociology 50A, 50B, Geography 1, 2. Recommended: Geology 1A-1B, Spanish, German or French. See requirements for the general major, page 18.

## Lower Division Courses

## 1A-1B. General Anthropology

Origin and antiquity of man. Theories of human descent. Classification of races. Origin and early development of civilization.

Year course (3-3)

## 54. Social Anthropology

An anthropological study of social institutions in primitive and civilized societies. The evolution of family organization, religion, property right, and government traced in elementary and advanced civilization.

Spring (3) (Not offered in 1946-47)

## Upper Division Courses

## 151A. The North American Indian

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)

## 151B. Indian Civilizations of Middle America

The development of civilization in Pre-Columbian Mexico and Central America: Aztec, Mayan, and related cultures.

Spring (3)

## 152. Primitive Cultures (Ethnography)

History and cultural development of primitive races of mankind. Consideration given to industries, arts, social organization, and religion of preliterate culture groups.

Fall (3) (Not offered in 1946-47)

## 153. Primitive Religion

Beliefs and ritual of primitive man. Magic and religion. Forms of animism and polytheism. Primitive mentality and the supernatural.

Spring (3) (Not offered in 1946-47)

## 157. Primitive Myths and Rituals

The folklore, mythology, and rituals of primitive cultures in the Eastern Mediterranean area. The early beliefs and classic myths of the Egyptians, Assyrians, Babylonians, and Greeks.

(Not offered 1946-47)

## 165. Ethnology and Race Psychology

The biological basis of race, somatic, serologic and constitutional typology, racial mentality, tests and their ethnopsychological significance, abnormality in ethnic groups. Race and culture; the development of ethnological theories, ethnological theories applied in anthropological field techniques.

Fall (3) (Not offered 1946-47)

## COMMERCE

Candidates for a teaching credential in business education should refer to the statement "Admission to Teacher Education Curricula" on page 21, and to the curriculum for the A.B. Degree with a special credential in Business Education on page 27.

Lower division preparation for the liberal arts major in commerce and for the junior certificate: Economics 1A-1B, 14A-14B, 18A-18B; English 1B and 11 or 12, 13, 14, 15, 16; Geography 10A-10B, Mathematics C, or equivalent, and Economics 2; History 4A-4B or 8A-8B or Political Science 1A-1B or 71A-71B.

Liberal arts major in commerce, 24 upper division units required as follows: Economics 111, 121, 140, with 12 or more units additional chosen in one of the following groups:

A. Accounting: Economics 160A-160B, 161, 162.

B. Banking and Finance Economics 133, 135 and 6 units selected from Economics 107, 131, 134, 137.

C. Business Administration: 6 units selected from Economics 123, 125, 137, 142, 150.

Electives: 9 or more additional upper division units in economics.

## Lower Division Courses

## 2. Mathematics of Finance

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. Principles of Accounting

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. Five hours lecture and laboratory.

Year course (3-3)

## 18A-18B. Commercial Law

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 subjects covered: contracts, sales, agency, partnerships, corporations, real property, negotiable instruments, insurance, and wills, with a brief study of evidence.

Year course (3-3)

## Upper Division Courses

## 121. Business Administration

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)

## 123. Marketing

A survey of the fundamental principles and methods of marketing. Intended as a basic training for students interested in the economics of advertising, sales management, retailing, and foreign trade, as well as for those wishing a knowledge of the existing market structure. Subjects covered include price policies, distribution methods, finance, risk, market information, and governmental regulation. Prerequisite: Economics 1A-1B.

Spring (3)



**125. General Insurance**

Economic theory of risk, its extent and importance to both the individual and business; transfer of risk; distribution and prevention of loss; types of insurance carriers; problems of rate making; the insurance contract; coverages; special forms of life, fire, marine and casualty insurance; state supervision.

Fall (3)

**127. Life Insurance—Principles and Practice**

A study of social and individual values involved in the institution of life insurance. The student is then directed to the types of life insurance companies and associations, home office and agency organization, types of contracts, surrender value, policy loans and extended insurance, surplus and dividend policies, reserves, group, industrial and social insurance, and state supervision.

Fall (3)

**133. Corporation Finance**

The corporate form of organization, instruments of long-time finance, methods of raising capital, efficient financial management, the financing of reorganizations, and governmental control. Prerequisite: Economics 1A-1B.

Fall (3)

**134. Investments**

Investment principles and practices with emphasis upon problems of the small investor, such as tests of a good investment, sources of information, types of stocks and bonds, mechanics of purchase and sale, investment trusts, real estate mortgages, and the like.

Spring (3)

**137. Credits and Collections**

The credit man and his work, including the instruments with which he works, sources of credit information, the technique of his department, collection methods, legislation for the protection of debtor and creditor, and credit insurance.

Fall (3)

**150. Labor Problems**

A discussion of employment, hours, wages, working conditions, insurance, pensions, workmen's compensation, labor organizations, and labor legislation. Organization of personnel functions; selective devices, training and safety programs, compensation plans, morale.

Spring (4)

**160A-160B. Advanced Accounting**

An intensive study of the corporation, its accounting and financial problems; a thorough study of the balance sheet; depreciation; factory accounting, etc. Under practical accounting an endeavor is made to design, construct, and operate sets of books to meet the needs of different conditions and kinds of businesses. Six hours lecture and laboratory. Prerequisite: Economics 14A-14B.

Year course (3-3) (Offered in 1946-47 and alternate years)

**161A-161B. Cost Accounting**

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.

Year course (3-3) (Offered in 1947-48 and alternate years)

**162. Accounting Systems**

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 1947-48 and alternate years)

**164. Income Tax Procedure**

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 (3) (Offered in 1947-48 and alternate years)

**165A-165B. Auditing**

The fundamental principles of accepted procedures of auditing and related types of accounting engagements.

Year course (3-3)

**167. Governmental Accounting**

A comparative study of accounting systems used by municipalities, counties, and the state of California; detailed comparisons with commercial practice; procedures in handling budget accounts, appropriations, and encumbrances; subsidiary records; cost records; internal checks; auditing.

Spring (3)

**ECONOMICS**

Lower division preparation for the liberal arts major in economics and for the junior certificate: Economics 1A-1B, Commerce 14A-14B and at least one of the following: Political Science 1A-1B or 71A-71B, History 4A-4B, 8A-8B, Psychology 1A-1B, Sociology 50A-50B, Anthropology 50A-50B. Recommended: Commerce 18A-18B, Geography 10A-10B.

Liberal arts major in economics, 24 upper division units required as follows: Economics 100A, 140, and 100B or 111, with 9 or more additional units selected from Economics 100B, 107, 111, 131, 135, 150, 171, 195, Commerce 125 and 133. Electives: Six or more additional upper division units in economics or commerce. Political Science 143A-143B may be substituted for elective units in economics.

**Lower Division Courses****1A-1B. Principles of Economics**

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)

**Upper Division Courses****100A. Modern Economic Thought**

Review of schools of economic thought in the light of recent economic theory with special reference to value and distribution. Special attention is given to the marginal utility theory of value, to the contributions of the institutional economists, and to the work of statisticians in the development of economic theory. Prerequisite: Economics 1A-1B.

Fall (3)

**100B. Modern Economic Thought**

A problem course. Subjects include price theory; distribution with particular emphasis on income; effects of various kinds and degrees of competition and regulation; war economy and government planning. Recommended: Economics 100A.

Spring (3)



- 103. The Economics of War and Post-War Recovery and Reconstruction**  
I, Backgrounds of the Present War; II, The Requirements of War Economy; III, International Recovery and Reconstruction; IV, National Recovery and Reconstruction.

Spring (3)

- 107. Credit and Credit Institutions**

A study of the economics of credit, its cost, and the agencies supplying credit. Special attention is given to the growth of government credit agencies and their place in modern economic society. Prerequisite: Economics 1A-1B. Recommended: Economics 100.

Spring (3) (Not offered in 1946-47)

- 111. Economic History of the United States**

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

Spring (3)

- 128. Land Economics**

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.

Fall (3)

- 131. Public Finance**

Principles and practice of taxation, public expenditures, and financial administration. Economic effects of public expenditure, indebtedness, and taxation. Prerequisite: Economics 1A-1B.

Spring (3)

- 135. Money and Banking**

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

Spring (3)

- 140. Statistical Methods**

The nature and uses of statistical method in the social sciences. Practice in tabular and graphic presentation of data; analysis of frequency and time series; index number construction and study of correlation techniques. Prerequisite: Mathematics A-B, and C or equivalent.

Fall (3)

- 142. Business Cycles**

Fundamental factors in business cycles are analyzed and cycle theories are examined. Study of current business conditions begins early in the course and develops into practical application of forecasting methods to both business and other data. Prerequisite: Economics 140.

Spring (3)

- 150. Labor Problems**

A study of labor organizations and their policies, wages, strikes, unemployment, social insurance, child labor, labor legislation, plans for industrial peace, and other labor problems.

Fall (3)

- 171. Transportation**

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 in public utilities. Prerequisite: Economics 1A-1B.

Fall (3) (Offered on demand)

- 195. International Economic Relations**

A brief treatment of certain geographical, sociological, and legal phases of international relations followed by a study of the commercial and industrial basis of world economy touching upon a number of special problems involved. An introductory study of materials covering the processes, principles, and policies of international trade. The course concerns itself primarily with the economic basis of international relations, but political aspects are almost constantly taken into account in recognition of the fact that international relations are frequently political in form but economic in content.

Spring (3)

- 198. Investigation and Report**

Designed to stimulate independent study and investigation; to furnish guidance in the collection, organization, and presentation of factual material; to improve the technique of term reports.

Fall and Spring (3-3)

- 199A-199B. Special Study**

Designed exclusively for seniors with a major in economics.

Fall (1), Spring (1 or 2)

## GEOGRAPHY

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

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

## Lower Division Courses

- 1. Introduction to Geography: Physical Elements**

The nature of maps, weather and climates of the world; natural vegetation; land forms and their associated soils, with reference to their climatic relationships; the seas and their coasts. One all-day field trip. Open to all students who have not taken Geography 10A-10B. This course is classified as a natural science.

Fall and Spring (3)

- 2. Introduction to Geography: Natural and Cultural Regions**

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**

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. Aeronautical meteorology stressed in the fall semester. This course is classified as a natural science.

Fall (3)

- 4. Map Reading and Map Interpretation**

Representation of geographic data by means of maps. Interpretation of projections, scales, symbols, land forms, and culture from topographic maps; measurements of cultural data on maps. Prerequisite: Geography 1.

Fall (2)

- 10A-10B. Economic Geography**

Beginning course in economic geography limited to students in commerce and prospective economics majors. Not open to students who have had Geography 1 and 2. This course may serve as prerequisite to upper division geography courses.

Fall and Spring (3-3)



## Upper Division Courses

## 112. Geography of California

The physiographic regions of California and the cultural landscapes developed by the successive cultural groups. Prerequisite: Geography 1.  
Spring (3)

## 116. Geography of Latin America

The natural regions of Latin America; their occupational condition and historical evolution. Prerequisite: Geography 1.  
Spring (3)

## 117. Geography of Northern and Eastern Europe

A study of the cultural development of the countries of northern and eastern Europe in relation to physical background and historical evolution. Prerequisite: Geography 1.  
Fall (3)

## 118. Geography of the Mediterranean Area

A study of the cultural development of the countries of Southern Europe, Western Asia, and North Africa in relation to physical background and resources. Prerequisite: Geography 1.  
Spring (3)

## 121. Geography of North America

The natural regions of North America, their formation and economic and historical development. Prerequisite: Geography 1.  
Fall (3)

## 124. Geography of Asia

The cultural regions of Asia, their physical environment, and historical development. Prerequisite: Geography 1.  
Spring (3)

## 135. Geography of the San Diego Area

Directed individual urban and rural field work in the San Diego area; the mapping of a small area and making its geographic interpretations. Prerequisites: Geography 1 and 2.  
Fall (3)

## 141. Economic Geography

A survey of the raw materials of world trade; their production and distribution as related to major geographic regions of the world. Prerequisite: Geography 1.  
Fall (3)

## 166. Honors Course

To be arranged after consultation with the chairman of the department. (See page 14.)  
Fall and Spring (Credit to be arranged)

## HISTORY

Lower division preparation for the liberal arts major in history: History 3A-3B or 4A-4B or 8A-8B or 17A-17B and either Political Science 1A-1B, 71A-71B or Economics 1A-1B. Two lower division history courses are recommended for students planning to major in history. No student shall enroll in more than one lower division history course during a semester.

Upper division history requirements for the liberal arts major: At least twenty-four units in upper division courses in history, to be arranged in consultation with the chairman of the department. A reading knowledge of at least one foreign language is expected of history majors.

The history minor: From 15 to 18 units of work in history is recommended. At least nine units of the work must be chosen from upper division courses.

## Lower Division Courses

## 3A-3B. Survey of Ancient Civilizations

Introduction to pre-history and Mediterranean civilizations.  
Year course (3-3)

## 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

Survey of the history of the western hemisphere from the discovery to the present time. Based on H. E. Bolton's "Syllabus of the History of the Americas."  
Year course (3-3)

## 17A-17B. History of the United States

Survey of the political and social development of the United States, with emphasis upon the rise of American civilization and ideals.  
Year course (3-3)

## Upper Division Courses

## 111A-111B. Ancient History

(A) Greek history to the Roman conquest. (B) Roman history to the fourth century A.D.  
Year course (3-3)

## 121A-121B. Medieval History

Survey of European political and cultural development between 500 and 1300 A.D.  
Year course (3-3)

## 131A-131B. Renaissance, Reformation and Counter-Reformation

A history of personalities and events connected with the social, cultural, economic and religious change between 1300 and 1600.  
Year course (3-3)

## 143. The French Revolution and Napoleonic Era

Study of conditions in France prior to 1789, the Revolution from 1789 to 1799, the organization of France under Napoleon, the character of his Empire and the reorganization of Europe at the Congress of Vienna, 1815.  
Fall (3)

## 144. Europe Since World War I

Developments in Europe from 1919 to the present. Special emphasis upon the background of World War II.  
Spring (3)

## 151A-151B. History of England

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 and the rise and development of present-day political and social institutions.  
Year course (3-3)

## 161. Mexico and the Caribbean Countries

Special attention to the relations of the United States with these countries and to recent developments in Mexico.  
Fall (3)



**162. South America Since Independence**

The republics of South America. Attention directed to the development of nationality in South America, struggles for political stability, 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)

**171A-171B. The Rise of the American Nation**

Semester I: Lectures and readings on English colonization in North America, the development of colonial institutions and political customs, and areas of international conflict during the 18th century. Semester II: The revolutionary movement and the establishment of the government under the Constitution of 1787 to the close of the War of 1812.

Year course (3-3)

**172A-172B. Constitutional History of the United States**

A study of the work of the convention of 1787, the problems involved in setting up the new government under the Constitution, the nature of the Federal system as it becomes defined in governmental practices and court decisions, the nature of the system of individual rights.

Year course (3-3)

**173A-173B. The Expansion of the United States**

Lectures and readings on Jacksonian Democracy, territorial expansion and the Mexican War, the slavery controversy, Civil War and Reconstruction, and attention to the growth and progress of the United States to the close of the 19th century.

Year course (3-3)

**175. The United States in the Twentieth Century**

The rise of the United States to be a world power; social and economic problems posed by the machine age; political action and adjustment, actual and proposed, intended as solutions for these problems.

Spring (3)

**176A-176B. History of American Foreign Policy**

Lectures and readings in the field of American foreign relations since 1776, with special emphasis, in the second semester, upon affairs since 1900. A general survey course.

Year course (3-3)

**179A-179B. Intellectual History of the American People**

A study of the ebb and flow of ideas in the United States since the founding of the English colonies, with special attention devoted to social and political thought.

Year course (3-3)

**191A-191B. History of the Far East**

Particular emphasis during the first semester on the history, both internal and international, of the Far East through the 19th century. The second semester will be devoted to a consideration of developments in the 20th century.

Year course (3-3)

**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 (2)

**LIBRARY SCIENCE****10. Use of the Library**

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 decimal classification, the card catalog, periodical indexes, and the most important reference books, together with some instruction in the preparation of bibliographies. The course will be a requirement of those students added to the library's staff of student assistants, although it will not prepare the student to become a librarian.

Fall and Spring (2)

**MERCHANDISING****20. Consumer Economics**

Growing importance of consumption as a field for study; consumer incomes in the United States; consumption and business cycles; bases of consumer choice-making; practical problems of buying food, clothing, shelter, transportation, insurance, etc.; family budgeting; a survey of the methods by which products reach the consumer; market structure and functions seen from the consumer's point of view.

Fall (3)

**24. Merchandising**

A study of retail stores, emphasizing the problems of store managers and merchandising executives; store location, organization, personnel, sales promotion, buying and handling of merchandise, inventory, turnover, and control methods. Changing conditions in retailing, problems of profitable operation under present conditions.

Spring (3)

**25. Salesmanship**

Theoretical and psychological backgrounds of salesmanship, newer concepts of selling; the selling of ideas and services; steps in a sale: attention, interest, desire, closing; the development of clientele and of good will; the personal factor in salesmanship.

Fall (3)

**26. Applied Salesmanship**

Classroom practice in selling; supervised work in cooperating stores, or outside selling; relationships between theory and practice in specific selling situations; incentive methods of payment in selling; the problem of sales managers in reducing selling costs.

Spring (2)

**26A. Life Insurance Salesmanship**

A study of the special problems of life insurance selling, with emphasis on the psychological aspects of insurance selling, and on specific techniques for finding prospects, and for managing the sales interview. A course for students interested in life insurance selling, and for those planning to obtain life underwriter's certification. To be taken in conjunction with 26 (see above) and not available as a separate course.

Spring (26 and 26A, taken together, 3 units)

**27. Advertising**

A survey of advertising from the point of view of the business man and the consumer; business principles applied to advertising; basic psychological appeals employed; market analysis as an advertising tool; budgeting of appropriations; selection of mediums; layout, art work, copy; publicity devices; institutional advertising; the function of agencies; radio as a specialized advertising problem.

Spring (3)

**PHILOSOPHY****1A, 1B. Introduction to Philosophy**

A non-historical introduction to the types and problems of philosophy. The most inclusive and influential world-views are studied at length, then the principal problems of philosophy are considered in terms of these basic systems. Prerequisite: Sophomore standing, or permission of instructor.

(1A, Fall and Spring, 3) (1B, Fall and Spring, 3)



**3A, 3B. History of Thought**

A study of the basic ideas of Western Civilization in their historical development. The making of the modern mind as revealed in the development of philosophy and in the relations between philosophy and science, art and religion. The history of ideas against the social and political backgrounds from which they came. Prerequisite: Sophomore standing, or permission of instructor.

Fall, Spring (3, 3)

**8. Social Philosophies**

The study of man's speculation regarding his "right" organization, together with the assumptions, analogies and economics determining his temporary conclusions. Among the thinkers studied are Hobbes, James I, Rousseau, Locke, Jefferson, Kropotkin, Mill, Marx, Mussolini, Dewey, Pius XI, Hoover, Roosevelt, etc. (May be taken for lower or upper division credit.)

Spring (3)

**Upper Division****108. Social Philosophies—(see Philosophy 8)****120. Reflective Thinking (Logic)**

Analysis of fallacies, and the logic of argument and proof; an examination of reflective procedures in various fields of knowledge, and a review of some psychological descriptions of thought. Prerequisites: Psychology 1A and at least one semester of philosophy.

Spring (3) (1947-48 and alternate years)

**130. Ethics**

The search for the Good Life. The principal theories of ethical obligation, the sources of moral authority, and the various views regarding the nature of the "highest good" and the related goals of intelligent living.

Fall (3) (1947-48 and alternate years)

**136. Philosophy of Art**

A study of the nature of esthetic experience, both in itself and in relation to the rest of human experience. Particular effort is made to disentangle man's esthetic attitude and activity (whether in the field of art, nature or daily life) from those experiences and evaluations with which the esthetic is frequently confused. The principal theories of art, both traditional and contemporary, are studied at length—both in relation to actual artistic production and to art's role in society.

Spring (3)

**137. Philosophy of Science**

A critical examination of the basic concepts and methods underlying contemporary scientific thought. Nature of scientific knowledge, conceptions of nature, natural law, relation of the scientific interest to other interests, and contributions of the special sciences to a view of the universe as a whole.

Fall (3)

**POLITICAL SCIENCE**

The minor in Political Science: From 15 to 18 units of work is recommended. At least 9 units must be chosen from upper division courses.

It is suggested that students who expect to major in Political Science plan their lower division work to include both Political Science 1A-1B and 71A-71B, and either Economics 1A-1B or History 4A-4B.

**Lower Division Courses****1A-1B. Comparative Government**

A comparative study of typical governments. Semester I: England, France and Switzerland. Semester II: Italy, Germany, Russia and Japan.

Year course (3-3)

**71A-71B. American Government and Politics**

Semester I: Governmental organization in the United States; Federal system, organization, powers and functions of the legislative, executive and judicial branches of the national government, and the expansion of its activities. Semester II: Development of the means of democratic control of government in the United States; the history, motivation, methods and control of political parties; party machines; election systems; influence of minority groups; the lobby; the press.

This course is not open to freshmen.

Year course (3-3)

**Upper Division Courses****101. American Institutions**

A study of the principles of the Constitution of the United States, and a survey of the political and social institutions which have developed under it.

Fall (2)

**111A-111B. Theory of the State**

The nature of the State, its organization and activities, and its relation to the individual and to other states. Special attention is given to recent developments in the field of political thought.

Year course (3-3)

**133A-133B. Principles of International Law**

This course is concerned with the function of law in the international community. The historical development of the theory and rules of international law, the application of international law in international relations and the application of international law in national courts.

Year course (3-3)

**141. Theories of International Relations**

The development of ideas concerning international relations from ancient through modern times. Theories of nationalism, imperialism, internationalism and cosmopolitanism will be reviewed and their validity considered in the light of modern experience.

Fall (3)

**142. International Organization**

Pre-war attempts at international organization, the effect of World Wars I and II on the ideas of international relationships. Post-war 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 towards cooperation after World War I.

Spring (3)

**143A-143B. Principles of Public Administration in the United States**

A study of the development of executive agencies in the American federal government and the relationship between these agencies and the changes in American concepts concerning the proper field of governmental activity.

Year course (3-3)

**PSYCHOLOGY**

Lower division preparation in psychology for advanced work. Recommended: Psychology 1A-1B, Zoology 1A-1B or Biological Science 10A-10B, Philosophy 3A-3B or 5A-5B, Mathematics 8, a foreign language and some physics, anthropology and sociology.

**Lower Division Courses****1A. General**

An elementary survey of normal adult psychology, descriptive and organizational; the subjective and objective aspects of behavior. Furnishes basis for all other courses in psychology and is prerequisite therefor.

Fall and Spring (3)



**1B. General Applied**

A continuation of general psychology designed to familiarize the student with (1) elementary statistical methods and (2) fields of applied psychology and possibly (3) some one topic (not included in upper division courses) in which he pursues an independent experimental approach if judged advisable or for additional unit. Required for advanced study. Prerequisite: Psychology 1A.

Fall and Spring (3)

**Upper Division****105. Mental Testing**

Binet individual test administration, leading to certificate; additional test study and testing for additional credit. Prerequisites: Psychology 1A, 1B.

Fall (3)

**118. Mental Hygiene**

Problems, personality adjustment, emotional problems, attitudes, conflicts, neurotic behavior, conduct disorders of both child and adult.

The beginnings of undesirable attitudes and habits and methods of treating them are stressed more than serious cases of maladjustment which are either incurable or problems for a psychiatrist. The methods of building wholesome personality are emphasized more than the analysis of extreme disorders. Prerequisites: Psychology 1A, 1B.

Spring (3)

**145. Social Psychology**

Personality as it develops in relation to social environment. Suggestion, imitation, leadership, the crowd, public opinion, social control, prejudice, propaganda, sex differences, race differences, etc. Prerequisites: Psychology 1A, 1B.

Spring (3)

**150. Abnormal Psychology**

The relation of psychology to the psychoneuroses and insanity; the appearance of abnormal traits in incipient stages of mental disturbances. Methods of diagnosis and early treatment. Prerequisites: Psychology 1A, 1B. Recommended: Psychology 118.

Fall (3)

**151A. Clinical Psychology**

A study of diagnostic devices in psychology, tests of clinical significance, ratings, interviewing for securing information, projective and case study analyses; problems of insight, rapport, empathy, and prediction of individual behavior. Prerequisites: Psychology 1A, 1B, 118 or 150. Recommended: Psychology 105.

Fall (3)

**151B. Clinical Psychology**

A study of non-medical psycho-therapies—ancient, medieval, and modern, but all contemporary; particularly non-directive counseling and such directive methods as naively operate in making friends and influencing people. Prerequisite: Psychology 151A unless waived by consent of instructor.

Spring (3)

**160. Experimental Psychology of Learning**

Introduction to instrumental and comparative psychology and to methods of research in the development of behavior theory. Prerequisite: 5 units of other work in the department and consent of the instructor; required of those seeking a major.

Fall (3)

**SECRETARIAL TRAINING****A. Business Mathematics**

A practical course in the mathematics of business. A thorough study of interest, compound interest, discount, amortization tables, insurance rates, etc.

Fall and Spring (1) (No credit will be counted toward A.B. Degree requirements, except in the curricula leading to the Business Education Credential.)

**1A-1B. Typewriting**

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

Year course (3-3) (No credit will be counted toward A.B. Degree requirements except in the curricula leading to the Business Education Credential)

**2A. Typewriting**

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 Procedure**

Practice and principles of office management, including organization, arrangement and operation. Study and use of modern office appliances such as the multi-graph, mimeograph, filing devices, calculating and bookkeeping machines. Prerequisite: Secretarial Training 1A or its equivalent.

Fall and Spring (3) (No credit will be counted toward A.B. Degree requirements except in the curricula leading to the Business Education Credential)

**5A-5B. Shorthand**

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 Shorthand**

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

Year course (3-3)

English in Business (See English 8)

**SOCIAL SCIENCE**

Lower division preparation for the liberal arts major in social science: Fulfillment of the respective departmental lower division requirements for upper division in at least three of the following sciences: Anthropology, economics, geography, history, political science, sociology. Liberal arts major (upper division) in social science, required: Twenty-four units of upper division work including a concentration of twelve upper division units in one of the following fields and six units in each of two others: Anthropology, economics, geography, history, political science, sociology.

This major is available only to students who are preparing for graduate work in anthropology, political science, or sociology, and to those enrolled in certain pre-professional and other curricula. Official approval for candidacy for a degree with a social science major must be obtained from the Dean of the upper division.

**Lower Division Course****1. Contemporary Political, Social and Economic Problems**

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. Particular attention to implications of the war and post-war problems. An attempt to introduce the student to sound methods of approach in dealing with these problems.

Fall and Spring (3)

**SOCIOLOGY**

Lower division preparation for the liberal arts major in social science with concentration in sociology: Sociology 50A, 50B; Economics 1A-1B and one of the following year courses: Anthropology 50A-50B, Political Science 1A-1B, 71A-71B. See requirements for the social science major.



## Lower Division Courses

## 50A. Introduction to Sociology

A study of modern social problems recognizing the geographic, economic, psychological, and sociological factors involved. Emphasis is on a scientific method of approach. An evaluation of various causes and solutions of problems is made.

Fall (3)

## 50B. General Sociology

The development and use of the concepts of sociological analysis, such as human nature, the effects of isolation and social contacts upon the development of personality; social interaction; social processes; social forces; social control; collective behavior; and social progress.

Spring (3)

## 55. Marriage and Family Life

A psychological and sociological approach to the study of marriage and the family. Some of the topics considered are: relation of courtship to marriage; emotional maturity and marriage; eugenic aspects of marriage; college marriages; harmony in modern marriage; economic adjustment in marriage, parenthood. Prerequisite: Health Education 1 or 2; a biological science and Psychology 1A recommended. Not open to Freshmen.

Spring (3)

## Upper Division Courses

## 105. Social Pathology

A study of the alleged abnormal phenomena in society; family disorganization and personal demoralization; pathology of individual and group relationships and of economic, social, and cultural relationships. Prerequisite: Sociology 50AB.

Fall (3)

## 106. Criminology and Penology

The extent and characteristics of crime; consideration of physical, mental, economic, and sociological causes of crime; study of methods of penal discipline, prison labor, parole, and probation; programs of prevention. Prerequisite: Sociology 50AB.

Spring (3)

## 108. The Family

History of marriage and family as a social institution. Effects of various economic and social factors on the modern family; higher education and the birth rate; married women in industry and professions; causes of desertion and divorce and their sociological effects. Not open to students who have credit for Sociology 55.

Spring (3) (Offered in 1947-48 and alternate years)

## 109. Fields of Social Work

A survey of the nature of social work and the various kinds of social work which are found in modern urban life. The student is familiarized with the various social agencies in the community, their problems and methods of work, by readings and field trips. Volunteer social work in some social agency recommended. Prerequisite: Sociology 50AB.

Spring (3)

## 126. Social Reform Movements

A study of organized efforts to change social institutions in the United States since 1865. Emphasis given to backgrounds, objectives, techniques, and relationship to democracy of each movement. Prerequisite: Sociology 50AB.

Fall (3)

## 197. Urban Sociology

A study of the structure and function of the modern city; types of neighborhoods; forms of recreation; social forces in a metropolitan area; types of urban personalities and groups; rural-urban conflicts of culture. Practical field studies required. Prerequisite: Sociology 50AB.

Fall (3)

## TWO-YEAR CURRICULA

These curricula are organized for students who have not yet qualified for enrollment in a four-year curriculum leading to the Bachelor of Arts degree. Regularly qualified students who prefer a shorter completion course will take only such two-year courses as may be required in the specialized curricula they are following. Upon satisfactory completion of the requirements in these two-year curricula the student is granted a diploma. By maintaining a high grade of scholarship the student may secure the opportunity of transfer to a four-year program. Such transfers are made by action of a faculty committee after the student has completed one or more semesters in a two-year curriculum. Upon transfer the credits earned in courses in the two-year program in which grades of A and B have been received are allowed to count toward the Bachelor of Arts degree but are reduced by one step in grade.

Courses numbered 40 and 45 are not open for credit to students in a four-year curriculum.

A two-year student may elect any other college lower division subject under guidance where his high school scholarship record, or his scores in the aptitude and achievement tests, or his college record indicates probable success in that field. He must, of course, meet all prerequisites for the course under consideration.

## TWO-YEAR CURRICULUM IN LIBERAL ARTS

	Units Sem. I	Units Sem. II
<b>First Year</b>		
English 40A or 40B and 40C	3	3
*Physical Science 40 or equivalent	3	3
*Biology 40 or equivalent	3	3
Social Science 40	3	3
Sociology 40	3	2
Health Education 1 or 2	1	1
Physical Education	3	3
Psychology 40	3	4
Elective	15½	15½
<b>Second Year</b>		
Speech Arts 40 or English 45, 46 or 47	3	3
Social Science (Economics 45A, Geography 40B, Merchandising 20, or Social Science Elective)	3	3
Social Science 45	9	12
Elective	1	1
Physical Education	15½	15½

\* Not less than 6 units of natural science must be completed in college.



## TWO-YEAR CURRICULUM IN ART

	Units Sem. I	Units Sem. II
<b>First Year</b>		
English 40A, or 40B	3	--
English 40C	--	3
Social Science 40	3	--
Biology 40 or equivalent	--	3
Psychology 40	3	--
Health Education 1 or 2	1	2
Art 6A-6B	2	2
Aesthetics 5 or equivalent	--	2
Art A-B or equivalent	2	2
Physical Education	$\frac{1}{2}$	$\frac{1}{2}$
Elective	2	1
	15 $\frac{1}{2}$	15 $\frac{1}{2}$
<b>Second Year</b>		
Physical Science 40 or equivalent	3	--
Social Science 45	--	3
Art Electives	9	9
Physical Education	$\frac{1}{2}$	$\frac{1}{2}$
Elective	3	3
	15 $\frac{1}{2}$	15 $\frac{1}{2}$

Art Elective: Art 7, 11A-11B; 14A-14B, 15A-15B, 16A-16B, 52A, 94.

## TWO-YEAR CURRICULUM IN MUSIC

	Units Sem. I	Units Sem. II
<b>First Year</b>		
English 40A or 40B	3	--
English 40C	--	3
Social Science 40 or equivalent	3	--
Psychology 40	--	3
Health Education 1 or 2	--	2
Music 1A-1B or equivalent	3	3
Aesthetics 1A-1B	2	2
Music Elective	1	1
Applied Music	0-1	0-1
Physical Education	$\frac{1}{2}$	$\frac{1}{2}$
Elective	2-3	1-2
	15 $\frac{1}{2}$	15 $\frac{1}{2}$
<b>Second Year</b>		
Physical Science 40 or equivalent	3	--
Biological Science 40	--	3
Social Science 45	--	3
Speech Arts or Foreign Language	3	3
Music 4A-4B or approved substitute	3	3
Applied Music	1-2	1-2
Elective (including at least 2 units of music)	4-5	1-2
Physical Education	$\frac{1}{2}$	$\frac{1}{2}$
	15 $\frac{1}{2}$	15 $\frac{1}{2}$

## TWO-YEAR CURRICULUM IN ACCOUNTANCY

	Units Sem. I	Units Sem. II
<b>First Year</b>		
Commerce 40A-40B	3	3
English 8	--	3
English Elective	1	--
Secretarial Training A	3	3
Secretarial Training 1A-1B	--	2
Health Education 1 or 2	3	--
*Physical Science 40 or equivalent	--	3
*Biological Science 40 or equivalent	3	--
Elective	$\frac{1}{2}$	$\frac{1}{2}$
Physical Education	--	--
	16 $\frac{1}{2}$	15 $\frac{1}{2}$
<b>Second Year</b>		
Commerce 46A-46B	3	3
Merchandising 20	3	--
Merchandising 24B	--	3
Secretarial Training 3A	3	--
Commerce 18A-18B	3	3
*Commerce 45A-45B	--	3
Social Science 45	--	1
Elective	$\frac{1}{2}$	$\frac{1}{2}$
Physical Education	--	--
	15 $\frac{1}{2}$	16 $\frac{1}{2}$

## TWO-YEAR CURRICULUM IN SECRETARIAL TRAINING

	Units Sem. I	Units Sem. II
<b>First Year</b>		
Commerce 41A-41B	3	3
Secretarial Training A	1	--
English 8	3	--
English Elective	--	3
Secretarial Training 1A-1B	3	3
Secretarial Training 5A-5B	5	5
Health Education 1 or 2	--	2
Physical Education	$\frac{1}{2}$	$\frac{1}{2}$
	15 $\frac{1}{2}$	16 $\frac{1}{2}$
<b>Second Year</b>		
*Physical Science 40 or equivalent	3	--
*Biological Science 40 or equivalent	--	3
Commerce 18A-18B	--	3
*Commerce 45A-45B	3	3
Secretarial Training 6A-6B	3	--
Secretarial Training 3A	--	3
Social Science 45	$\frac{1}{2}$	$\frac{1}{2}$
Physical Education	--	--
	15 $\frac{1}{2}$	15 $\frac{1}{2}$

\* Students qualified for regular four-year standing should take the equivalent course provided for regular students.



## COURSE OF INSTRUCTION

### ASTRONOMY

#### 40. Elementary Astronomy

A survey course planned to acquaint the student with the more important facts pertaining to both the solar system and to the stars. The first part of the course is devoted to the study of the earth as an astronomical body and to the other planets. The latter part is devoted to a study of the sun and stars.

Spring (3)

### BIOLOGY

#### 40. Man and His Biological World

A survey of the general field of biology with emphasis on the role of biological science in the welfare of man and his associates, consisting of three lectures and one demonstration period per week.

Fall and Spring (3)

### COMMERCE

#### 40A-40B. Elementary Accounting

An introductory course in the fundamental principles of accounting; recording business transactions; opening and closing books of different kinds of business in accordance with modern accounting practice; accounting theory combined with actual practice. Balance sheet; profit and loss statements; accounts; book of entry, etc. Planned for students entering accounting work who must confine their preparation to one or two years.

Year course (3-3)

#### 41A-41B. Secretarial Accounting

A course in secretarial accounting covering the fundamental principles of accounting and the application of these principles to the accounting work required by one employed in a secretarial capacity.

Year course (3-3)

#### 45A-45B. Business Economics

A basic course in the general principles of business economics and the application of these principles to current problems of man's economic life. A coordinated description of economic conditions, circumstances and forces which are of general significance throughout the business world. The development of theory as an interpretation of and guide to practice. Emphasis placed on actual business and financial operations and matters of everyday business experience which may serve as guides for individual conduct and the development of social policy. Human wants and their satisfaction; organization and purpose of business; risks and insurance; how prices are determined; money, credit and banking; taxation; principles of consumption; government and business; wealth, value, capital, rent, interest profits; etc. Not open to freshmen.

Year course (3-3)

#### 46A-46B. Record Keeping

An advanced course in the application of accounting theory and principles to accounting practice; the technical arrangement of accounting forms, records and reports found in business; advanced theory. Opportunity afforded students through the use of practice sets, etc. to secure practice in applying principles to actual work done in business. Prerequisite: Accounting 15A-15B or 16A-16B or Economics 14A-14B.

Year course (3-3)

### ENGLISH

#### 40A. Beginning Composition

The elements of composition, including drill in grammar and usage; exercises in vocabulary building and careful reading; theme writing.

Fall and Spring (3)

#### 40B. Freshman English

Composition stressing exposition. Reading from essays and articles. Prerequisites: Satisfactory Subject A test.

Fall and Spring (3)

#### 40C. Freshman Literature

Literature, mainly contemporary, is read for its thoughts and ideas, especially in relation to human problems and their solution. Practice in writing is continued. Prerequisite: One semester of Freshman English. Required of all Two-Year students.

Fall and Spring (3)

#### 45. Sophomore English: Biography

Composition stressing personal narrative and informal essay. Reading from field of biography and memoirs. Prerequisite: English 40A or 40B, and English 40C.

Spring (3)

#### 46. Sophomore English: Contemporary Literature

Study of contemporary literature, with emphasis on various forms, such as the novel, poetry, drama, etc., as used by the principal writers of the twentieth century world. The main objective of the course is to give students a background for the major portion of their reading beyond college. Prerequisite: English 40A or 40B, and English 40C.

Fall (3)

#### 47. Sophomore English: Periodical Literature

Composition stressing the writing of essays and articles. Reading from current periodical literature. Prerequisite: English 40A or 40B, and English 40C.

Fall (3)

### GEOGRAPHY

#### 40A. Introduction to Geography: Fundamentals

This course deals with maps, weather and climate, landforms, vegetation and soils. It develops background for the study of countries and regions. One all-day field trip is required.

Fall and Spring (3)

#### 40B. Introduction to Geography: Countries and Regions

This course presents the regions of the world with a description of what man has done with the resources in each. It deals with human activity and distributions. Prerequisite: Geography 40A.

Fall and Spring (3)

### GEOLOGY

#### 40. General Geology

An elementary course dealing with those processes of nature by which the surface of the earth is built up, deformed and torn down. A study of the natural history and occurrence of the common rocks and minerals.

Fall and Spring (3)

### HEALTH EDUCATION

#### 1. Health and Social Adjustment (Men)

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)**

An informational course, reviewing the principles underlying the improvement of personal health, and the solution of practical problems of young women and prospective homemakers. Lectures by specialists in the various fields serve to enrich the course. Required of all freshmen who are candidates for junior standing or the degree.

Fall and Spring (2)

**40A. Nutrition**

A course based on the study of how to make healthful food choices from the modern scientific viewpoint. Consideration is given to the meaning and indications of adequate nutrition and to food in its relationship to the maintenance of well-being. Red Cross Nutrition Certificate is granted upon course completion. Open only to students enrolled in a two-year curriculum.

Fall (2)

**40B. Nutrition-Laboratory**

A practical course in the selection and preparation of typical foods. Emphasis is placed on the conservation of essential food flavors and nutrients. Class meets once a week and is open only to students who have registered in Nutrition 40A.

Fall (1)

**MATHEMATICS****40. Computational Mathematics**

Basic work in arithmetic, informal geometry, elementary algebra, and simple trigonometry. The chief emphasis is placed on computation. Not open for credit to students who already have credit in elementary geometry, whether taken in high school or in college.

Fall and Spring (3)

**MUSIC****40A-40B. Music for Enjoyment**

A course designed for students with little or no musical background. Lectures and discussions as a basis for intelligent listening to concerts, radio programs, and class presentation of recorded music. Not open to music majors and minors.

Year course (1-1)

**PHYSICAL SCIENCE****40. Man and His Physical World**

A brief survey of the nature of the scientific method and of selected topics in physical science. Materials will be chosen from physics, chemistry, astronomy, and geology in order to give some background for an understanding of the relations of physical science to modern life. Not open to students who have had both high school or college physics and chemistry or either of these subjects together with either astronomy or geology.

Fall and Spring (3)

**PSYCHOLOGY****40. Psychology and Life**

An elementary survey of normal adult psychology, focused upon psychological principles in relation to life situations. Open only to students enrolled in a two-year curriculum.

Fall and Spring (3)

**SOCIAL SCIENCE****40. Contemporary Problems**

A survey of the major political, social, and economic forces in modern American life. Chief problems are analyzed in relation to their setting, and students are given sound methods of approach in dealing with them.

Fall (3)

**45. American Democracy**

The structure and function of government, as it relates to individual Americans. Special emphasis on popular participation through voting, political parties, pressure groups, and public opinion. Prerequisite: Sophomore Standing.

Spring (3)

**SOCIOLOGY****45. Marriage and the Family**

The purpose of this course is to prepare young people for successful marriage and family life. The development of the personality through family relationships, the choice of a life partner, and the social and economic factors involved in the establishment of a home, are given special emphasis. The importance of the family as a unit in larger social groupings is stressed, and both psychological and material factors which affect the welfare of family members are brought to the student's attention. Prerequisite: Sophomore Standing.

Spring (3)

**SPEECH ARTS****40. Fundamentals of Public Speaking**

Training in fundamental processes of oral expression; practice in organization and presentation of material; emphasis upon speech in daily situations, including public discussion, conversation, recitation, extemporaneous speaking, and short speeches for special occasions.

Fall (3)



(1945-46)

- HEPNER, WALTER R.-----President  
A.B., 1913, M.A., 1916, Ed.D., 1937, University of Southern California. At San Diego State College since 1935.
- ADAMS, JOHN R.-----Professor of English  
A.B., 1920, A.M., 1922, University of Michigan; Ph.D., 1940, University of Southern California. At San Diego State College since 1928.
- ALCORN, MARVIN DOUGLAS-----Assistant Professor of Education;  
Director of Teacher Placement  
A.B., 1925, Southwestern College; A.M., 1931, Teachers College, Columbia University; Ed.D., 1942, University of Southern California. At San Diego State College since 1941.
- AMSDEN, GEORGIA C.-----Associate Professor of Commerce  
Diploma, Gregg School, Chicago. At San Diego State College since 1925.
- AULT, JESSE W.-----Dean of Professional Education,  
Professor of Education  
B.S., B.Pd., 1910, Valparaiso University; M.A., 1925, University of South Dakota. One year graduate study since 1925 at Claremont Colleges and University of Southern California. At San Diego State College since 1925.
- BACON, GUINIVERE KOTTER (Mrs. George)-----Supervisor of Student Teaching;  
Associate Professor of Education  
B.S., Utah Agricultural College; M.A., Stanford University. One year graduate study since 1926 at Stanford University, Teachers College of Columbia University, University of Southern California, and University of California at Los Angeles. At San Diego State College since 1928.
- BAIRD, OSCAR-----Professor of Physics  
B.A., 1910, University of Wisconsin; M.A., 1924, University of California. Three years graduate study since 1924 at University of Minnesota, University of California, University of Southern California, University of Oregon. At San Diego State College since 1921.
- BAKER, ALICE G.-----Assistant in Physical Education  
B.S., University of California at Los Angeles. At San Diego State College since 1945.
- BAKER, CLIFFORD HENRY, JR.-----Instructor in Spanish and French  
B.A., 1933, San Diego State College; M.A., 1935, University of California. Two years graduate study since 1935 at University of California. At San Diego State College since 1937.
- BARNHART, KENNETH EDWIN-----Associate Professor of Sociology  
A.B., 1915, Southwestern University; A.M., 1920; Southern Methodist University; Ph.D., 1924, University of Chicago. At San Diego State College since 1939.
- \*BENNETT, MURIEL-----Instructor in Physical Education  
B.A., Pomona College; M.A., Claremont Colleges. One-half year graduate study since 1936 at Claremont Colleges and University of California at Los Angeles. At San Diego State College since 1936.
- \*BLAKE, DEAN-----Instructor in Meteorology  
Meteorologist, U. S. Weather Bureau. At San Diego State College since 1927.
- \*BROMLEY, J. PHILIP-----Assistant Professor of Commerce  
B.S., 1934, M.S., 1936, University of Southern California. One year graduate study since 1936 at University of Southern California, Columbia University, and Texas Agricultural and Mechanical College. At San Diego State College since 1936.

\* On leave

- BROOKS, BAYLOR-----Assistant Professor of Geology  
B.A., 1928, Stanford University. Two years graduate study since 1928 at University of Arizona and Stanford University. At San Diego State College since 1931.
- BROWN, ELIZABETH (Mrs. Leslie P.)-----Associate Professor of French  
Ph.B., M.A., Ph.D., University of Chicago. At San Diego State College since 1926.
- BROWN, LESLIE PARKER-----Professor of Spanish and French  
B.A., 1912, Yale College; M.A., 1913, Harvard University; Ph.D., 1935, University of Southern California. At San Diego State College since 1922.
- BRYDEGAARD, MARGUERITE ANNA-----Supervisor of Student Teaching;  
Assistant Professor of Education  
A.B., San Diego State College; M.A., Claremont Colleges. At San Diego State College since 1936.
- CAMERON, ROY ERNEST-----Professor of Economics  
A.B., 1922, Ph.D., 1929, University of California. At San Diego State College since 1929.
- CORBETT, KATHERINE E.-----Supervisor of Student Teaching;  
Associate Professor of Education  
B.Pd., Michigan State College; B.S., M.A., Teachers' College, Columbia University. At San Diego State College since 1921.
- CROUCH, JAMES ENSIGN-----Professor of Biology  
B.S., 1930, M.S., 1931, Cornell University; Ph.D., 1939, University of Southern California. At San Diego State College since 1932.
- †DARSIE, MARVIN LLOYD, JR.-----Instructor in Biology  
A.B., 1934, University of California at Los Angeles; Ph.D., 1939, Stanford University. At San Diego State College since 1939.
- DEPUTY, ERBY CHESTER-----Professor of Education  
B.A., 1922, University of Denver; M.A., 1926, Ph.D., 1929, Columbia University. At San Diego State College since 1931.
- DICKHAUT, FLORENCE LILLIAN SMITH (Mrs. Charles A.)-----Professor of English  
B.A., Northwestern University; M.A., University of Chicago. At San Diego State College since 1917.
- EVANS, BRYANT F.-----Instructor in Journalism  
B.J., 1931, University of Missouri. On editorial staff of San Diego Union. At San Diego State College since 1945.
- GLEASON, JOHN MORTIMER-----Assistant Professor of Mathematics  
B.A., 1929, University of California at Los Angeles; M.A., 1930, University of California. One and a half years graduate study since 1930 at University of Southern California, University of California at Los Angeles and Claremont Colleges. At San Diego State College since 1930.
- GULICK, SIDNEY-----Associate Professor of English  
A.B., 1925, A.M., 1927, Oberlin; Ph.D., 1931, Yale University. At San Diego State College since 1945.
- HAMANN, ILSE HEDWIG-----Assistant Professor of Art  
B.E., University of California at Los Angeles. M.A., Columbia University. At San Diego State College since 1934.
- HAMMACK, EDITH CHASTAIN-----Supervisor of Student Teaching;  
Associate Professor of Education  
B.A., San Jose State College. At San Diego State College since 1911.
- HAMMACK, ISABELLA STEWART-----Supervisor of Student Teaching;  
Assistant Professor of Education  
B.A., M.A., University of California. One-half year graduate study since 1929 at University of California. At San Diego State College since 1936.

† On military leave



- HARVEY, DOROTHY R.** (Mrs. F. A.) ----- Assistant Professor in Botany  
B.A., San Diego State College; M.A., University of Southern California. One year graduate study since 1928 at University of Southern California and University of Chicago. At San Diego State College since 1924.
- HARWOOD, ROBERT DANIEL** ----- Professor of Zoology  
A.B., 1920, Pomona College; Ph.D., 1928, Cornell University. At San Diego State College since 1928.
- HASKELL, HARRIET** ----- Instructor in English  
A.B., Mills; A.M., Bryn Mawr; Ph.D., University of Wisconsin. At San Diego State College since 1945. In S. D. Junior College at S. D. S. C. 1940-1943.
- HOUSER, LOWELL D.** ----- Instructor in Art  
Diploma, 1924, Chicago Art Institute. Five years' special study since 1924 in Mexico, Yucatan, Haiti, and New York City. At San Diego State College since 1933.
- HUNTER, JAMES J.** ----- Director of Secondary Education;  
Associate Professor of Education  
A.B., 1932, Cornell University; M.S., 1936, Ph.D., 1940, Syracuse University.
- HUFF, GEORGE D.** ----- Associate Professor of Health and Hygiene  
M.D., 1924, University of Texas. At San Diego State College since 1939.
- JACKSON, EVERETT GEE** ----- Professor of Art  
B.A., 1930, San Diego State College. Three years special study in Mexico. M.A., 1939, University of Southern California. At San Diego State College since 1930.
- JOHNSON, FRANK LOUIS** ----- Assistant Professor in English  
B.A., 1928, M.A., 1929, University of Minnesota; Ph.D., 1934, University of Wisconsin. At San Diego State College since 1939.
- JOHNSON, MYRTLE** ----- Professor of Biology  
B.S., M.S., Ph.D., University of California. At San Diego State College since 1921.
- JONES, SYBIL ELIZA** ----- Assistant Professor of Speech Arts  
B.L., M.L., University of California. Two years special study since 1907. At San Diego State College since 1925.
- KEENEY, JOSEPH SUMNER** ----- Associate Professor of English  
B.A., 1921, Yale College; M.A., 1928, Ph.D., 1933, University of California. At San Diego State College since 1933.
- KELLY, GENEVIEVE** ----- Assistant Professor of Sociology  
B.A., University of California; M.A., Columbia University. At San Diego State College since 1924.
- KENNEDY, CHESTER BARRETT** ----- Assistant Professor of English  
B.A., 1927, Chico State College; M.A., 1939, Stanford University. Two and one-half years graduate study since 1928 at Stanford University and the University of California. At San Diego State College since 1937.
- KITZINGER, ANGELA MAE** ----- Assistant Professor of Physical Education  
A.B., Barnard College; M.A., Teachers College, Columbia University. Year of additional work at Central School of Hygiene and Physical Education and at Gymnastic Institute, Ollerup, Denmark. At San Diego since 1945.
- LEIB, JULIUS** ----- Assistant Professor of Music  
Three years special study at Leipzig Conservatory. At San Diego State College since 1938.
- LEONARD, CHARLES B.** ----- Professor of History  
B.A., 1921, M.A., 1922, Ph.D., 1929, University of California. At San Diego State College since 1921.
- LESLEY, LEWIS B.** ----- Professor of History  
B.A., 1920, Stanford University; M.A., 1923, Ph.D., 1933, University of California. At San Diego State College since 1924.

† On military leave

- LINLEY, JAMES** ----- Assistant Professor of Education  
Ph.B., 1927, University of Chicago; M.S., 1934, Ph.D., 1938, University of Southern California. At San Diego State College since 1945.
- LIVINGSTON, GEORGE ROBERT** ----- Professor of Mathematics  
B.S., 1910, M.A., 1922, University of California. One year graduate study since 1922 at University of California and University of California at Los Angeles. At San Diego State College since 1921.
- LUCIO, WILLIAM HOWARD** ----- Principal of Campus Elementary School  
Assistant Professor of Education  
A.B., 1934, M.A., 1937, Ph.D., 1943, University of California. At San Diego State College since 1939.
- MADDEN, RICHARD** ----- Director of Elementary Education; Professor of Education  
B.A., 1926, Nebraska (Peru) State Teachers College; M.A., 1930, Ph.D., 1931, Columbia University. At San Diego State College since 1939.
- MEAD, HUNTER** ----- Assistant Professor of Philosophy and Psychology  
B.A., 1930, Pomona College; M.A., 1933, Claremont Colleges; Ph.D., 1936, University of Southern California. At San Diego State College since 1941.
- MENDENHALL, MARY** ----- Dean of Women; Professor of Educational Guidance  
B.A., University of Colorado; M.A., University of Southern California; Ph.D., Yale University. At San Diego State College since 1939.
- MOE, CHESNEY R.** ----- Associate Professor of Physics  
B.A., 1929, M.A., 1931, Stanford University; Ph.D., 1941, University of Southern California. At San Diego State College since 1931.
- NASATIR, ABRAHAM PHINEAS** ----- Professor of History  
B.A., 1921, M.A., 1922, Ph.D., 1926, University of California. At San Diego State College since 1928.
- NICHOLS, AMBROSE R., JR.** ----- Assistant Professor of Chemistry  
B.S., 1935, University of California; Ph.D., 1939, University of Wisconsin. At San Diego State College since 1939.
- BRYDEGAARD, MARGUERITE ANNA** (Mrs.) ----- Supervisor of Student Training;  
Assistant Professor of Education  
B.A., San Diego State College; M.A., Claremont Colleges. At San Diego State College since 1936.
- OSBORN, CLARENCE G.** ----- Associate Professor of History and Political Science  
B.A., 1926, M.A., 1927, Ph.D., 1935, Stanford University. At San Diego State College since 1937.
- PATTERSON, LENA E.** ----- Professor of Art  
A.B., B.S., Ohio University. M.A., Columbia University. One year graduate study since 1918 in Berlin, Vienna, Paris, London. At San Diego State College since 1933.
- PEASE, ESTHER ELIZABETH** ----- Assistant Professor of Physical Education  
B.A., University of California at Los Angeles. One year graduate study at University of California at Los Angeles, University of Southern California, and Mills College and one year European study in the dance since 1931. At San Diego State College since 1939.
- PEIFFER, HERBERT C., JR.** ----- Dean of Student Personnel and Guidance;  
Associate Professor of Psychology  
A.B., 1928, University of California at Los Angeles; M.A., 1931, Ph.D., 1939, Stanford University. Appointed Junior College 1937. At San Diego State College since 1941.
- PERRY, FAY V. (Mrs. J. M.)** ----- Director of Guidance for Two-Year Students;  
Associate Professor of Sociology  
B.A., San Diego State College; M.A., Ed.D., University of Southern California. Appointed Junior College 1936. At San Diego State College since 1940.
- PETERSON, CHARLES E.** ----- Dean of Men; Professor of Physical Education  
A.B., 1928, San Diego State College; M.A., 1937, Claremont Colleges. At San Diego State College since 1921.



- PFAFF, PAUL LEWIS**-----Associate Professor of Speech Arts  
B.A., 1929, Stanford University; M.A., 1937, University of Southern California. Two years study since 1937 at University of Southern California. At San Diego State College since 1931.
- PHILLIPS, WALTER THOMAS**-----Professor of Spanish and French  
A.B., 1925, University of Washington; M.A., 1926, Stanford University; Ph.D., 1943, University of Southern California. Graduate study at National University of Mexico, Institute of French Education, Middlebury College Italian School. At San Diego State College since 1927.
- POST, LAUREN CHESTER**-----Associate Professor of Geography  
A.B., 1924, M.A., 1931, Ph.D., 1937, University of California. At San Diego State College since 1937.
- REDIT, EDITH ESTHER**-----Supervisor of Student Teaching; Assistant Professor of Education  
B.A., M.A., University of California. At San Diego State College since 1938.
- RICHARDSON, ROBERT WILLIAM**-----Assistant Professor of Geography  
B.A., 1930, Ph.D., 1943, University of California. At San Diego State College since 1939.
- ROBINSON, DUDLEY HUGH**-----Professor of Chemistry  
B.A., 1927, Louisiana State University; M.S., 1932, University of Iowa; Ph.D., 1942, University of Southern California. At San Diego State College since 1928.
- ROGERS, SPENCER LEE**-----Associate Professor of Anthropology  
B.A., 1927, San Diego State College; M.A., 1930, Claremont Colleges; Ph.D., 1937, University of Southern California. At San Diego State College since 1930.
- ROSS, MELVYN K.**-----Instructor in Physics and Chemistry  
A.B., 1939, San Diego State College; M.S., 1942, and two years of graduate study at University of Southern California. At San Diego State College since 1942.
- SANDERS, VIOLA**-----Supervisor of Student Teaching; Instructor in Education  
A.B., San Diego State College; M.A., Claremont Colleges. At San Diego State College since 1945.
- SCHWOB, MARION LYON (Mrs. W. E.)**-----Associate Professor of Physical Education  
B.A., University of Iowa; M.S., University of Southern California. At San Diego State College since 1934.
- †SHAFFER, FLORENCE I.**-----Assistant Professor of Physical Education  
B.A., University of California; M.S., University of Southern California. At San Diego State College since 1933.
- SMITH, CHARLES ROBERTS**-----Assistant Professor of Physical Education  
B.A., 1931, San Diego State College. One year graduate study since 1931 at University of Southern California. At San Diego State College since 1933.
- SMITH, CLIFFORD EDWARD**-----Associate Professor of Astronomy  
B.A., 1923, Carleton College; M.A., 1926, Swarthmore College; Ph.D., 1936, University of California. At San Diego State College since 1937.
- SMITH, DEANE FRANKLIN**-----Assistant Professor of Music  
B.Mus., 1931, M.Mus., 1939, Northwestern University. At San Diego State College since 1939.
- SMITH, LEILA DEBORAH**-----Professor of Music  
A.B., Oberlin College; M.Mus., Oberlin Conservatory; M. A., Columbia University. One-half year study since 1926 at Stanford University and Northwestern University. At San Diego State College since 1922.
- SPRINGSTON, CHRISTINE**-----Associate Professor of Music  
B.A., B.M., University of Redlands; M.A., University of Washington. Diplôme d'exécution, Conservatoire National, Fontainebleau, France. At San Diego State College since 1930.

† On military leave

- STEINMETZ, HARRY CHARLES**-----Associate Professor of Psychology  
B.A., 1924, M.A., 1927, University of California. Two years graduate study since 1927 at Stanford University, University of California, and Purdue University. At San Diego State College since 1930.
- STONE, JOHN PAUL**-----Head Librarian; Associate Professor of Library Science  
B.S., 1926, Northwest Missouri State Teachers College; B.S., 1929, M.S., 1930, University of Illinois. Ph.D., 1945, University of Chicago. At San Diego State College since 1930.
- STORM, ALVENA (Mrs. Eugene)**-----Associate Professor of Geography  
A.B., A.M., University of California. At San Diego State College since 1926.
- \*SWANSON, CHARLES EDMUND**-----Instructor in English (Journalism)  
B.A., 1941, San Diego State College. At San Diego State College since 1938.
- TERRY, WILLIAM L.**-----Assistant Professor of Physical Education  
A.B., 1930, Western Kentucky State Teachers College; M.S., 1932, Indiana University; two years additional study at University of Kentucky and University of Illinois. At San Diego State College since 1946.
- TRAIL, MABEL COY**-----Assistant Professor of English  
B.A., Parsons College; M.A., State University of Iowa. Two years graduate study since 1927 at University of Southern California. Appointed Junior College 1935. At San Diego State College since 1940.
- TUCKER, GORDON H.**-----Associate Professor of Biology  
B.S., 1931, M.S., 1934, University of South Carolina; Ph.D., 1934, University of North Carolina. At San Jose State College since 1945.
- WALKER, HILDE KRAMER (Mrs.)**-----Assistant Professor of German  
B.A., M.A., Northwestern University. At San Diego State College since 1931.
- WALLING, CURTIS R.**-----Assistant Professor of Mathematics and Engineering  
B.A., 1925, E.E., 1926, Stanford University. One and a half years graduate study since 1926 at Stanford University and University of Southern California. At San Diego State College since 1931.
- WATENPAUGH, FRANK M.**-----Assistant Professor of Commerce  
A.B., 1916, Pomona College; M.A., 1931, University of Southern California. Two years graduate study since 1931 at University of Southern California and University of Oregon. Appointed Junior College 1935. At San Diego State College since 1940.
- WATSON, DONALD R.**-----Dean of General Education  
Associate Professor of Physical Science  
B.A., 1924, B.S., 1925, M.A., 1927, Ed.D., 1940, University of Southern California. At San Diego State College since 1939.
- WRIGHT, WILLIAM H.**-----Professor of Commerce  
B.S., 1917, M.A., 1928, University of California, Ph.D., 1943, University of Southern California. At San Diego State College since 1921.
- WURFEL, SEYMOUR WALTER**-----Instructor in Law  
B.A., 1927, Pomona College; LL.B., 1930, Harvard University. At San Diego State College since 1938.
- YOUNG, CARL HAVEN**-----Assistant Professor of Physical Education  
B.A., 1925, Pomona College; M.A., 1935, University of Southern California. Two years graduate study since 1935 at Stanford University. At San Diego State College since 1939.

\* On leave



## AFFILIATED CITY SCHOOLS

HELEN K. SYLVESTER, Principal	Euclid School
RALPH F. TROGE, Principal	Woodrow Wilson Junior High School
FLOYD A. JOHNSON, Principal	Herbert Hoover High School

## MEDICAL STAFF

O. S. HARBAUGH, M.D.	Medical Examiner
MARILYNN M. FENWICK, R.N.	Nurse

## LIBRARY STAFF

JOHN PAUL STONE, Ph.D. in Library Science	Head Librarian
MARGARET HELEN DEMCRAY, A.B. and Certificate in Librarianship	Senior Librarian
LULU GERMANN, B.S.	Senior Librarian
V. RUTH DICKISON	Typist-Clerk
MARION GRANT	Secretary to Librarian
GERALDINE K. HAYNES, A.B., B.S.	Senior Librarian
GENEVIEVE KELLY, A.M.	Senior Librarian
*ELSIE L. ROY, A.B.	Senior Librarian
HARRIET B. STOVALL	Senior Librarian
†WINIFRED SMITH	Library Clerk

## ADMINISTRATIVE OFFICE STAFF

EVADNE T. DEARDORF	Assistant Registrar
STELLA LOUISE DIBOLL	Recorder
GENEVIEVE HAMBLIN	Secretary to the Registrar
MIRIAM E. MOORE	Secretary to Dean of Professional Education and Dean of General Education
CONSTANCE KING	Secretary to Dean of Women
FAY LANDWEER	Secretary to Dean of Men
HELEN M. NORRIS	Secretary to Two-Year Offices
DONALD G. PARKER	Senior Account Clerk
GERTRUDE K. DICKINSON	Intermediate Account Clerk
KATHERINE M. PYLE	Secretary to Employment-Placement Office
†MILDRED ANN ROBERTSON	Secretary to Employment-Placement Office
FLORENCE SCHNEIDER	PBX Operator
MARJORY M. THORN	Statistician
FLORENCE WIGGINS	Secretary of the Campus Elementary School

## MAINTENANCE STAFF

C. L. FISK	Supervisor of Buildings and Grounds (to July 1, 1946)
TIMOTHY HALLAHAN	Supervisor of Buildings and Grounds (after July 1, 1946)
WILLIAM DUNS	Head Gardener
MYRLEN SOUTHWORTH	Engineer

\* On leave  
† On military leave

## INDEX

- A.B. degree, 15, 19  
Accounting  
Courses, *see* commerce, 97  
Two-year curriculum, 113  
Administration credential, 19  
Administrative office staff, 124  
Admission requirements  
Advanced standing, 10; freshmen, 9;  
special students, 9  
Teacher education, 21  
Adult special students, 9  
Advanced standing  
Admission, 10  
Evaluation of records, 10, 12  
Teacher education, 22  
Aesthetics, 54  
Affiliated city schools, 124  
Agriculture, pre-agriculture curriculum,  
34  
Animal science, curriculum, 34  
Anthropology, 96  
Aptitude test, 10  
Art  
Courses, 54-57  
Special secondary credential, 26  
Two-year curriculum, 112  
Astronomy, 85  
Auditors, 10  
Bachelor of Arts degree  
General requirements, 9, 16  
Liberal arts  
Major, 18  
Minor, 18  
Professional and preprofessional, 23-  
48  
Teacher education  
Admission to, 21  
Credentials, 19  
Bacteriology, 80  
Biology, 80  
Botany, 80  
Buildings and equipment, 7  
Business education, special secondary cre-  
dential, 27  
Calendar, 1946-47, 5  
Campus, description of, 7  
Campus elementary school, 7  
Chemistry, 86  
Classification of students, 13  
College  
Location and environment, 7  
Officers, inside cover  
Commencement  
Date, 5  
Fees, 12  
Commerce  
Courses, 97  
Special secondary credential in busi-  
ness administration, 27  
Comparative literature, 68  
Constitution requirement, 18, 20  
Contents, table of, 3  
Courses of instruction, 48-110  
Crafts, *see* art, 54  
Credentials  
Administration and supervision, 19  
Combinations, 19  
Elementary, 23  
Fees, 12  
General secondary, 19  
Grades covered by, 19  
Credentialed—continued  
Junior high school, 25  
Kindergarten-primary, 23  
Requirements  
Admission to teacher education, 21  
General, 20  
Teaching major, 20  
Teaching minor, 20  
Special secondary credentials  
Art, 26  
Business education, 27  
Music, 28  
Physical education: Men, 30; women,  
31  
Speech arts, 32  
Speech correction, 33  
Curricula  
Liberal arts, requirements for degree,  
16  
Professional and preprofessional, 23-48  
Teacher education, 23-32  
Two-year, 111  
Degree with honors, 15  
Dentistry, predoctoral curriculum, 35  
Department of Education, State officers,  
inside cover  
Deposits and fees, 12  
Directed teaching  
Courses, *see* division of education, 49  
Eligibility, 14  
Facilities, 7  
Directory of faculty and office staffs, 118  
Disqualifications, 14  
Dormitories, 8  
Drama, *see* speech arts, 76  
Drawing, machine, *see* engineering, 87  
Economics, 99  
Education, 19  
Courses, 49-53  
Allowance for old work, 22  
Minor in, 18  
State Board of, members, inside cover  
State Department of, inside cover  
Elementary school credential, 23  
Embryology, *see* zoology, 81  
Employment, part-time, 8  
Engineering  
Courses, 87  
General engineering curriculum, 37  
Preengineering curriculum, 36  
English  
Courses, 68  
Entrance examination in, 10  
Requirements for A.B. degree, 16  
Teaching major, 21; minor, 21  
Entomology, *see* zoology, 81  
Entrance requirements, *see* admission re-  
quirements, 9, 10  
Equipment and buildings, 7  
Evaluations, 10, 12  
Examinations  
Dates of, 5  
Fees for, 12  
Final, 15  
Required for graduation: Constitution  
and American history, 18, 20  
Required at registration, 8, 10  
Required for teacher education, 10  
Excess study loads, 13  
Expenses, 12  
Extension courses, 15



## INDEX—Continued

- Faculty directory, 118  
 Fees  
   Auditors, 10  
   Deposits, 12  
   Evaluations, 12  
   Registration, 12  
 Fine arts, division of, 54-61  
 Foreign languages, *see* division of languages and literature, 68  
   Requirements for degree, 16  
 Forestry, preforestry curriculum, 39  
 French, 73  
 Full-time students, definition of, 13  
 Functions of the State colleges, 6  
 Fundamentals test  
   Dates of, 5  
   Fees for, 12  
   Requirements for teacher education, 10, 22  
   Exceptions from requirement, 10  
 General language, 74  
 General major, 18  
 General science, teaching major in, 21  
   *See* division of life sciences, 80; division of physical sciences, 85  
 General secondary credential, 19, 20  
 Genetic psychology, *see* psychology, 107  
 Genetics, *see* zoology, 81  
 Geography, 101  
 Geology, 89  
 German, 74  
 Glee clubs, *see* music, 57  
 Government, *see* political science, 106  
 Grade points, computation and definition of, 12  
 Grades  
   Deficiencies, 20  
   Grading system, 13  
   Incomplete, 13  
 Graduate work, 20  
 Graduation  
   Date of, 5  
   Limitations of credit toward, 20  
   Fees for, 12  
 Health department, 8  
 Health education  
   Courses, 62  
   Requirements for A.B. degree, 16  
 High school courses, to meet A.B. degree requirements, 17  
 History  
   American, examination requirement for graduation, 20  
   Courses, 102  
 Holidays, calendar of, 5  
 Honors group, 14  
 Housing of students, 8  
 Hygiene  
   Courses, 62  
   Mental, *see* psychology, 107  
 Illness of students, 8  
 Industrial arts, *see* engineering, 87  
 Inter-American relations, curriculum, 47  
 Italian, 75  
 Journalism, 76  
 Junior high school credential, 20, 21  
 Kindergarten-primary credential, 23  
 Laboratory fees, 12  
 Language  
   Foreign language requirement for degree, 16  
   *See* division of languages and literature, 68  
 Latin, 75  
 Law, commercial, *see* commerce, 97  
   prelegal curriculum, 40  
 Liberal arts, A.B. degree requirements, 16  
   two-year curricula, 111  
 Library  
   Description, 7  
   Fee, 12  
   Staff, 124  
   Campus elementary school, 7  
 Library science, 105  
 Life sciences, division of, 80-84  
 Limitations of study load, 13, 20  
 Limited students  
   Definition of, 13  
   Fee for, 12  
 Loans and scholarships, 11  
 Lower division requirements for A.B. degree, 16, 17, 20  
   Preprofessional courses, 23-45  
 Machine drawing, *see* engineering, 87  
 Majors for A.B. degree  
   Liberal arts, 17, 18  
   Teacher education, 20, 21  
   *See also* statement of major requirements in specific subjects  
 Mathematics  
   Courses, 90  
   High school course requirement, 17  
 Medical examinations, 8, 10, 62  
   Staff, 124  
 Medicine, premedical curriculum, 41  
 Mental hygiene, *see* psychology, 107  
 Mental testing, *see* psychology, 107  
 Merchandising, 105  
 Meteorology, *see* geography, 101  
 Military service, credit for, 16  
 Minor requirements for A.B. degree  
   Liberal arts, 16, 17, 18  
   Teacher education, 20, 21  
 Music  
   Courses, 57-61  
   Special secondary credential, 28  
   Teaching minor, 21  
   Two-year curriculum, 112  
 Natural science, requirement for A.B. degree, 17  
   *See* division of life sciences, 80, and physical sciences, 85  
 Non-degree curricula, 111  
 Numbering of courses, 17  
 Nursing, prenursing curriculum, 42  
 Oceanography, Scripps Institute, 7  
 Office staffs, 124  
 Officers of the college, inside cover  
 Optometry, preoptometry curriculum, 43  
 Orchestra, *see* music, 57  
 Philosophy, 105  
 Physical education  
   Requirements for A.B. degree, 16, 62, 64  
   Men, courses, 62-64  
   Special secondary credential, 30  
   Teaching minor, 21  
   Women, courses, 64-67  
   Special secondary credential, 31  
   Teaching minor, 21  
 Physical examinations, 10  
 Physical science  
   Courses, 92  
   Division of, 85  
   Requirements for degree, 17  
 Physics, 92  
 Physiology, 81  
 Placement office, 8  
 Plant science, curriculum, 34  
 Political science  
   Courses, 106  
   Requirements for degree, liberal arts, 18; teacher education, 20

## INDEX—Continued

- Practice teaching  
   Courses, *see* division of education, 49  
   Eligibility, 21  
   Facilities, 7  
 Preprofessional curricula, 23, 34-36, 39-43, 45  
 Probation and disqualifications, 14  
 Professional curricula, 23-48  
 Provisional students, definition, 9  
 Psychology  
   Courses, 107  
   Requirement for degree, 16  
   Public administration curriculum, 46  
   Public speaking, *see* speech arts, 76  
 Registrar's office staff, 124  
 Registration, 10  
   Admission, 9  
   Changes in, 10  
   Dates, 5  
   Fees, 12  
   Late fees, 10  
   Limitations of study-load, 13-20  
   Tests required, 10  
 Regular students, definition, 9  
 Regular-provisional students, definition, 9  
 Regulations, general, 13  
 Rehabilitation service, vocational, 8  
 Reinstatement, 14  
 Residence requirement for A.B. degree, 16  
 Romance languages, *see* division of languages and literature, 68  
 Salesmanship, *see* merchandising, 105  
 Scholarship  
   Deficiencies affecting graduation and transcripts, 13, 14  
   For admission to teacher education, 21  
   Petitions for excess study load, 13  
 Scholarships, 11  
 Science, *see* division of life sciences and physical sciences, 80  
 Secondary credential, 19  
 Secretarial training  
   Courses, 108  
   Two-year curriculum, 113  
 Semesters, calendar of, 5  
 Shorthand, *see* secretarial training, 108  
 Social science  
   Courses, 109  
   Requirements for degree, 17  
   Teaching major, 21  
 Social work curriculum, 44  
 Sociology, 109  
 Spanish, 75  
 Special secondary credentials, 20, 26-33  
 Special students, 9  
 Speech arts  
   Courses, 76  
   Credentials, 32, 33  
 Speech tests, 10  
 Stage design, *see* art, 54  
 State Board of Education, members of, inside cover  
 State Department of Education, members of, inside cover  
 Statistics, *see* economics, 99  
 Stenography, *see* secretarial training, 108  
 Student body fee, 12  
 Student life, comments on, 8  
 Study-load limitations, 13  
 Subject A examination, 10  
 Summer session calendar, 5  
 Supervision and administration credentials, 19  
 Surveying, 87  
 Table of contents, 3, 4  
 Teacher education, 7, 21  
 Teaching credentials, 19  
 Tests, *see* examinations  
 Transcripts of record, 14  
   Fee for, 12  
 Treble clef, *see* music, 57  
 Tuition and fees, 12  
 Two-year curricula, 111; courses of instruction, 114  
 Two-year students, *see* provisional, 9  
   Curricular limitations, 111  
 Typewriting, *see* secretarial training, 108  
 Units of work and study-load limitations, 20  
 Upper division  
   Courses, regulation for enrollment, 48  
   General requirements for A.B. degree in liberal arts, 17; teacher education, 20  
 Vacations, calendar of, 5  
 Veterans' education and housing, 8  
 Veterinary, pre-veterinary curriculum, 45  
 Visual education, *see* education, 49  
 Vocational rehabilitation service, 8  
 Withdrawals, 14  
 Zoology, 81