

UNIVERSITY OF CALIFORNIA
BULLETIN

**GENERAL
CATALOGUE**

1941-42

Primarily for Students in the
DEPARTMENTS AT LOS ANGELES

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UNIVERSITY OF CALIFORNIA

GENERAL CATALOGUE

ADMISSION AND DEGREE REQUIREMENTS

ANNOUNCEMENT OF GRADUATE AND

UNDERGRADUATE COURSES

OF INSTRUCTION

For the Academic Year

1941-42

Primarily for Students in the

DEPARTMENTS AT LOS ANGELES

405 HILGARD AVE., LOS ANGELES, CALIFORNIA

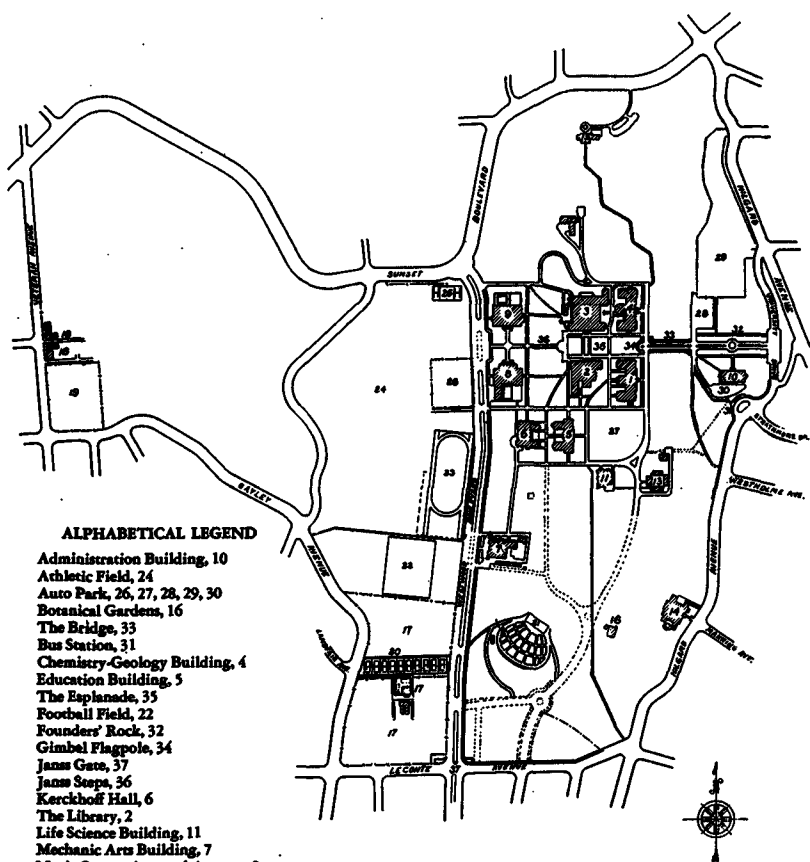
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MAP OF
UNIVERSITY OF CALIFORNIA
LOS ANGELES CAMPUS

CALENDAR*

1941

Sept. 2, Tuesday	Applications for admission to undergraduate or graduate study in September, 1941, with complete credentials, should be filed on or before this date to avoid penalty of late application fee.
Sept. 9, Tuesday	Admission Day: an academic and administrative holiday in all departments.
Sept. 10, Wednesday	9:00 A.M., Examination in Subject A.
Sept. 10, Wednesday Sept. 11, Thursday	Consultation with advisers by new students.
Sept. 12, Friday	Registration of old students and reentrants (graduates and undergraduates): 8:00 A.M.—9:30 A.M.—S—Z. 9:30 A.M.—11:00 A.M.—A—E. 12:00 M.—1:30 P.M.—F—K. 1:30 P.M.—3:00 P.M.—L—R. 3:00 P.M.—4:00 P.M.—All initials.
Sept. 13, Saturday	Registration of new students (graduates and undergraduates): 8:00 A.M.—9:30 A.M.—A—L. 9:30 A.M.—11:00 A.M.—M—Z. 11:00 A.M.—1:00 P.M.—All initials. Registration of any student, old or new: 11:00 A.M.—1:00 P.M.
Sept. 15, Monday	Instruction begins.
Sept. 18, Thursday	Last day to file registration books or to change study lists without fee.
Sept. 20, Saturday	9:00 A.M., Special examination in Subject A.
Sept. 29, Monday	Last day to file application for admission to candidacy for the master's degree or for the secondary teaching credentials in February, 1942.
Oct. 3, Friday	Last day to add courses to study lists.
Oct. 24, Friday	Last day to drop courses from study lists without penalty of grade F (failure).
Nov. 7, Friday	End of mid-term period.
Nov. 14, Friday	Last day to file without fee, notice of candidacy for the bachelor's degree to be conferred in January, 1942.
Nov. 20, Thursday Nov. 22, Saturday	Thanksgiving recess.
Dec. 6, Saturday	Last day to file without fee, applications for supervised teaching.
Dec. 13, Saturday	Christmas recess begins.

1942

Jan. 5, Monday	Classes begin after Christmas recess.
Jan. 17, Saturday Jan. 28, Wednesday	Final examinations, first semester.
Jan. 28, Wednesday	Last day of first semester.
Jan. 30, Friday	Applications for admission to undergraduate or graduate study in February, 1942, with complete credentials, should be filed on or before this date to avoid penalty of late application fee.
Feb. 6, Friday	9:00 A.M., Examination in Subject A.
Feb. 6, Friday Feb. 7, Saturday	Consultation with advisers by new students.

* For the calendar of the departments at Berkeley (which differs from the one given here) application should be made to the Registrar, University of California, Berkeley. Registration for the first semester at Berkeley will begin August 21, 1941; for the second semester, January 15, 1942.

Feb. 9, Monday	Registration of old students and reentrants (graduates and undergraduates): 7:45 A.M.—9:30 A.M.—F-K. 9:30 A.M.—11:15 A.M.—L-R. 12:00 M.—1:45 P.M.—S-Z. 1:45 P.M.—3:30 P.M.—A-E. 3:30 P.M.—4:00 P.M.—All initials.
Feb. 10, Tuesday	Registration of new students (graduates and undergraduates): 9:00 A.M.—1:00 P.M.—All initials. Registration of any student, old or new: 10:30 A.M.—1:00 P.M.
Feb. 11, Wednesday	Instruction begins.
Feb. 14, Saturday	Last day to file applications for California Alumni Association Scholarships.
Feb. 14, Saturday	9:00 A.M., Special examination in Subject A.
Feb. 16, Monday	Last day to file registration books or to change study lists without fee.
Feb. 20, Tuesday	Last day to file applications for fellowships and graduate scholarships for the academic year 1942-43, tenable at Los Angeles.
Feb. 23, Monday	Observance of Washington's Birthday: an academic and administrative holiday in all departments.
Feb. 21, Saturday	Last day to file application for admission to candidacy for the master's degree or for the secondary teaching credentials in June or in August, 1941.
Feb. 27, Friday	Last day to add courses to study lists.
Mar. 20, Friday	Last day to drop courses from study lists without penalty of grade F (failure).
Mar. 28, Monday	} Charter Week.
Mar. 29, Sunday	
Apr. 1, Wednesday	Last day to file applications for undergraduate scholarships for the academic year, 1942-43.
Apr. 1, Wednesday	End of mid-term period.
Apr. 2, Thursday	} Spring recess.
Apr. 4, Saturday	
Apr. 13, Monday	Last day to file without fee, notice of candidacy for the bachelor's degree to be conferred in June, 1942.
Apr. 13, Saturday	Last day to file without fee, applications for supervised teaching.
Apr. 20, Monday	Last day to file notice of candidacy for the bachelor's degree to be conferred in June, 1942.
May 11, Monday	Last day for filing in final form with the committee in charge, theses for the master's degree to be conferred in June, 1942.
May 27, Wednesday	} Final examinations, second semester.
June 6, Saturday	
May 30, Saturday	Memorial Day: an academic and administrative holiday in all departments.
June 13, Saturday	Twenty-third Annual Commencement at Los Angeles.
June 29-Aug. 7	Summer Session at Los Angeles (tentative).

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President of the University
219 California Hall, Berkeley
203 Administration bldg, Los Angeles

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* Absent on leave.

THE UNIVERSITY OF CALIFORNIA

NOTE: General information about instruction at Berkeley and Davis may be obtained by addressing the Registrar, University of California, Berkeley; for information about instruction at Los Angeles, address the Registrar, University of California, Los Angeles; information concerning the schools and colleges in San Francisco may be obtained by addressing the deans in charge. University publications available to inquirer are listed on the cover pages of this bulletin.

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Ashley H. Conard, *Associate Attorney for the Regents and Attorney in Residence Matters:*
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Olof Lundberg
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THE UNIVERSITY OF CALIFORNIA

FOUNDED 1868

THE UNIVERSITY OF CALIFORNIA is composed of academic colleges, professional schools, divisions, departments of instruction, museums, libraries, research institutes, bureaus, and foundations, and the University of California Press, situated on seven different campuses throughout the State, namely: Berkeley, Los Angeles, San Francisco, Davis, Riverside, Mount Hamilton, and La Jolla. A list of the divisions on each campus follows:

I. AT BERKELEY

The Colleges of

Letters and Science,
Agriculture (including the Department of Agriculture, the Agricultural Experiment Station, the Agricultural Extension Service, and the Giannini Foundation of Agricultural Economics),
Chemistry,
Commerce,
Engineering (including the Surveying Camp at Fairfax),
Mining,
Pharmacy (first year of the B.S. curriculum).

The Schools of

Architecture,
Education,
Jurisprudence,
Librarianship,
Medicine (first year),
Optometry.

The University Extension Division (offering instruction wherever classes can be formed, or anywhere in California by correspondence, and providing lectures, recitals, moving pictures and other material for visual instruction).

The California Museum of Vertebrate Zoölogy.

The Museum of Paleontology.

The Anthropological Museum.

The Institute of Child Welfare.

The Institute of Experimental Biology.

The Bureau of International Relations.

The Bureau of Public Administration.

The William H. Crocker Radiation Laboratory.

The University of California Press.

II. AT LOS ANGELES

University of California at Los Angeles:

The College of Letters and Science,

The College of Business Administration,

The College of Applied Arts,

The College of Agriculture, including courses of instruction and the Agricultural Experiment Station's activities at Los Angeles,

The Lower Division in Engineering and Mining,

The School of Education,

The Summer School of Surveying,

The Bureau of Governmental Research,

The Senator William Andrews Clark Memorial Library.

The Los Angeles Medical Department. Graduate instruction only.

III. AT SAN FRANCISCO

The Medical School (second, third, fourth, and fifth years, including the University Hospital).

The School of Nursing.

The George Williams Hooper Foundation (for Medical Research).

The College of Dentistry.

The College of Pharmacy.

The California School of Fine Arts.

The Hastings College of the Law.

IV. AT DAVIS

The College of Agriculture, including the University Farm and certain divisions of the Department of Agriculture and the Agricultural Experiment Station.

V. AT RIVERSIDE

The College of Agriculture, including the Citrus Experiment Station.

VI. AT MOUNT HAMILTON

The Lick Astronomical Department (Lick Observatory).

VII. AT LA JOLLA

The Scripps Institution of Oceanography.

ELSEWHERE

In addition to the principal divisions named above, the University maintains the W. K. Kellogg Institute of Animal Husbandry at Pomona and several field stations of the Agricultural Experiment Station in various parts of the State.

HISTORY AND ORGANIZATION

The establishment of the University of California in 1868 came as the result of three separate movements—one originating in private initiative, one in State action, and one in Federal action.

Private action owed its inception to the foresight of the Reverend Henry Durant, who in 1853 opened in Oakland the Contra Costa Academy, under the auspices of the Presbytery of San Francisco and of the Congregational Association of Oakland. The name was soon changed to College School, in order to signify that the undertaking was only preparatory to a projected college. In 1855 the institution was incorporated under the name of College of California and was formally opened in 1860. Classes were graduated from 1864 to 1869, inclusive. In 1856 the College obtained a tract of land five miles to the north of Oakland and ten years later the name of Berkeley was given to the townsite about the new college campus.

State action had its start in the Constitutional Convention of 1849, which incorporated into the fundamental law recognition of and provision for a State University. There was constant public agitation down to 1868 for making the provisions effective.

Federal action began in 1853 when Congress gave the State 46,000 acres of land for a "seminary of learning." In 1862 the Morrill Act provided an additional grant of public lands for the establishment of an Agricultural, Mining, and Mechanical Arts College.

These three forces began working together to one end—the establishment of a University of California. The College of California contributed its buildings and four blocks of land in Oakland and its 160 acres of land in Berkeley; the Federal Government, the congressional gift of 150,000 acres of public lands; and the State, its property accumulated for the purpose, together with new legislative appropriations. The legislative act creating the University of California was signed by Governor Henry H. Haight on March 23, 1868, and the new institution opened its doors for instruction in September, 1869.

The first President was Henry Durant (1869–72). He was followed by Daniel Coit Gilman (1872–75), John LeConte (1875–81), William T. Reid (1881–85), Edward S. Holden (1885–88), Horace Davis (1888–90), Martin Kellogg (1890–99), Benjamin Ide Wheeler (1899–1919), David Prescott Barrows (1919–23), William Wallace Campbell (1923–30), Robert Gordon Sproul (1930–).

The University of California, under the terms of the Constitution of the State, is a public trust, charged with the function of providing education of collegiate grade. Through aid from the State and Federal governments, and by private gifts, it provides instruction in literature and the arts, in the sciences, and in the professions of architecture, engineering, teaching, law, medicine, dentistry, nursing, optometry, and pharmacy. Instruction in all of the colleges of the University is open to all qualified persons, without distinction of sex.

ADMINISTRATION

The administration of the University of California is entrusted, under the State Constitution, to a corporation styled **THE REGENTS OF THE UNIVERSITY OF CALIFORNIA**, consisting of the Governor, the Lieutenant-Governor, the Speaker of the Assembly, the State Superintendent of Public Instruction, the President of the State Board of Agriculture, the President of the Mechanics Institute of San Francisco, the President of the California Alumni Association, and the President of the University as members *ex officio*, and sixteen other regents appointed by the Governor. This corporation has "full powers of organization and government, subject only to such legislative control as may be necessary to insure compliance with the terms of the endowments of the University and the security of its funds." The corporation is also vested with the legal title and the management and disposition of the property of the University and the property held for its benefit, and has the power to take and hold, either by purchase, or by donation or by gift, testamentary or otherwise, or in any other manner, without restriction, all real and personal property for the benefit of the University or incidental to its conduct. It is further authorized to delegate to its committees or to the faculty or to others such authority or functions in the administration of the University as it may deem wise. Pursuant to this authority it has created an academic administrative body called the Academic Senate.

The Academic Senate consists of the President, Vice-Presidents, Deans, Directors, the Registrars (at Berkeley and Los Angeles), the University Librarians (at Berkeley and Los Angeles), and all professors and instructors giving instruction in any curriculum under the control of the Academic Senate. Instructors of less than two years' service are not entitled to vote.

The Academic Senate is divided into two sections: The Northern Section includes members of the Senate whose duties lie primarily in Berkeley, San Francisco, or Davis, or at Mt. Hamilton; the Southern Section includes members of the Senate whose duties lie primarily in Los Angeles, Riverside, or La Jolla. The President of the University is chairman, *ex officio*, of each Section of the Academic Senate.

The Senate, subject to the approval of the Regents, determines the conditions for admission, for certificates, and for degrees. It authorizes and supervises all courses of instruction in the academic and professional colleges and schools. It recommends to the Regents all candidates for degrees and has general supervision of the discipline of students.

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

HISTORY AND DEVELOPMENT

IN MARCH, 1881, the legislature of California created the Los Angeles State Normal School. Five acres of ground were donated at the corner of Fifth Street and Grand Avenue—the present site of the Los Angeles City Library. Instruction was begun in August, 1882, with a faculty of three teachers and an enrollment of sixty-one students.

Following a legislative appropriation in 1911, a new site of twenty-five acres on North Vermont Avenue was obtained for the Normal School. In the fall of 1913 the cornerstone was laid for the first building, Millspaugh Hall, named to commemorate Jesse F. Millspaugh, who was president during the period 1904–1917. The School was moved into its new quarters in September, 1914, where it existed until the summer of 1919.

Through legislative action made effective by the Governor's signature on July 24, 1919, the grounds, buildings, and records of the Los Angeles State Normal School were transferred to The Regents of the University of California. In September of that year, university instruction was begun under the name Southern Branch of the University of California. The educational facilities were expanded to include the freshman and sophomore years in Letters and Science beginning with September, 1919; the third and fourth years with September, 1923 and 1924, respectively. The degree of Bachelor of Arts was conferred in the College of Letters and Science for the first time in June, 1925. In 1922 the teacher-training courses were organized as a Teachers College. The degree of Bachelor of Education was conferred for the first time in June, 1923. On February 1, 1927, the name of the institution was changed to UNIVERSITY OF CALIFORNIA AT LOS ANGELES.

The University is now engaged in building a new physical plant upon a campus of three hundred eighty-four acres which was bought and presented to the University by the cities of Santa Monica, Venice, Beverly Hills, and Los Angeles. The removal to the new site from North Vermont Avenue took place in August, 1929, and instruction in all departments was begun in the new buildings on September 23, 1929.

By action of the Regents work in the College of Agriculture was established at Los Angeles in November, 1930. The College of Business Administration was established in June, 1935, with instruction beginning in September, 1936; the College of Applied Arts and the School of Education were established July 1, 1939.

On August 8, 1933, graduate study at the University of California at Los Angeles leading to the degrees of Master of Arts and Master of Science, and to the Certificate of Completion for the general secondary and junior college

teaching credentials, was authorized by the Regents. Accordingly, in September, 1933, one hundred and fifty candidates were admitted to work in the following fields: botany, economics, education, English, geography, geology, history, mathematics, philosophy, physics, political science, psychology, and zoölogy; the first master's degrees were conferred in June, 1934. To the fields first made available there have been added fourteen others. Beginning in September, 1936, candidates for the Ph.D. degree were accepted in the fields of English, history, mathematics, and political science; to these have been added chemistry, geology, Germanic languages, horticultural science, microbiology, philosophy, physical-biological science, physics, physics-meteorology, psychology, Romance philology, and zoölogy; the first doctorate was conferred in 1938. It is expected that other fields will be available in subsequent years, as circumstances warrant.

SITE OF THE CAMPUS—CLIMATE

The Los Angeles campus of the University of California is situated on the lower south slope of the Santa Monica Mountains which overlook Hollywood and the western part of Los Angeles; the Pacific Ocean, visible from the grounds, is five miles distant in a direct line. The warmest month of the year is August, with a mean temperature of about 68°; the coolest is January with a mean temperature of 49°; the annual rainfall is about 18 inches, mostly between December and March. Proximity to the ocean insures an even temperature without extremes; the daily range of variation is about fifteen degrees.

The University campus is within the corporate limits of the city of Los Angeles, west of Beverly Hills. It extends along the south side of Sunset Boulevard from Hilgard Avenue to Veteran Avenue, and is bounded on the south by LeConte and Gayley avenues; automobiles should turn south from Sunset Boulevard at Hilgard Avenue, or north from Wilshire Boulevard at Westwood Boulevard.

The campus may be reached by bus as follows: From *Los Angeles* business district (Fifth and Hill Streets), Los Angeles Motor Coach line, via Wilshire Boulevard, and Pacific Electric Co. Castellammare bus line, via Sunset Boulevard. From *Los Angeles*, western terminus of Pico car line, Bay Cities Transit Co. bus, via Pico and Westwood boulevards. From *Hollywood* (North Vermont Avenue and Hollywood Boulevard), Pacific Electric Co. bus, via Hollywood and Sunset boulevards. From *Santa Monica*, Pacific Electric Co. bus, via Wilshire Boulevard, and Bay Cities Transit Co. bus, via Santa Monica Boulevard.

Students coming to Los Angeles by rail may ordinarily obtain tickets and check baggage to West Los Angeles without additional cost if done at the time when the railroad ticket is purchased. The cost of carfare and baggage transfer from Los Angeles is thereby considerably reduced.

SURVEY OF CURRICULA

Instruction at the University of California at Los Angeles is offered in (a) the College of Letters and Science, with curricula leading to the degrees of Associate in Arts and Bachelor of Arts, curricula of the earlier years of the College of Dentistry, of the Medical School, and of the College of Chemistry; (b) the College of Business Administration, with curricula leading to the degrees of Associate in Arts and Bachelor of Science; (c) the College of Applied Arts, with curricula leading to the degrees of Associate in Arts, Bachelor of Arts, and Bachelor of Science, curricula of the earlier years of the College of Engineering, of the College of Mining, of the School of Optometry, and of the College of Pharmacy, and a curriculum leading to the Certificate in Public Health Nursing; and (d) the College of Agriculture, with curricula leading to the degree of Bachelor of Science. Students electing certain curricula in the College of Agriculture may register at Los Angeles for the first two years and then transfer to Berkeley or Davis to complete the requirements for the degree. The School of Education at Los Angeles supervises curricula leading to the Certificates of Completion for the various elementary and secondary teaching credentials, and for the administrative credential. Graduate study, leading to the degrees of Master of Science and Master of Arts, and to the degree of Doctor of Philosophy also is available at the University of California at Los Angeles.

SUMMER SESSIONS

During the summer the University conducts at Los Angeles one session of six weeks; for 1942 the tentative opening and closing dates are June 29 and August 7, respectively. The courses of instruction are of university level, and credit toward university degrees may be given to persons attending who comply with such conditions of work and examinations as may be imposed by the instructors in charge. The tuition fee for the session is \$35, irrespective of the number of courses taken.

The University does not attempt, in general, to make inquiry concerning the educational qualifications of applicants for admission to the Summer Session who are twenty-one years of age, except that applicants must be considered by the faculty to be of sufficient maturity and intelligence to profit by attendance upon the exercises of the session. Admission will be granted to persons under twenty-one years of age who are graduates of high schools or other approved secondary schools.

AN ANNOUNCEMENT OF THE SUMMER SESSION is issued in March of each year, and may be obtained by addressing the Dean of the Summer Session, University of California, 405 Hilgard Avenue, Los Angeles, California.

Summer Sessions are also conducted by the University at Berkeley, and at Davis. An Intersession of six weeks immediately precedes the Summer Session at Berkeley.

THE LIBRARY

The Library has more than 370,000 volumes that are accessioned and approximately 7700 periodicals and continuations are regularly received.

The Library is open daily. From Monday to Friday, inclusive, the hours during regular sessions are from 7:45 A.M. to 10 P.M.; Saturday, from 7:45 A.M. to 5 P.M.; Sunday, from 2 P.M. to 5 P.M. The reading rooms accommodate about 1700 students.

Supplementing the general library is the William Andrews Clark Memorial Library of about 25,300 volumes featuring primarily English literature and history of the United States Northwest.

UNIVERSITY EXTENSION

The Extension Division offers facilities to men and women who seek some form of higher education, but are prevented from taking up residence at the University. The University of California, therefore, provides, through the Extension Division, educational opportunities to adults living in any part of the State.

The work is carried on in five ways:

(1) **Class Instruction.** Classes are organized in cities and towns wherever a sufficient number of people can be secured who wish to study a subject. Instruction is offered in art, business methods, economics, education, engineering, geography, history, languages, law, literature, mathematics, political science, psychology, public speaking, science, etc.

(2) **Correspondence Instruction.** Courses are given by mail in art, astronomy, composition and literature, drawing, economics, education, engineering, history, the languages, mathematics, music, philosophy, physics, political science, psychology, etc. Courses may begin at any time.

(3) **Lectures,** singly or in series, are provided for any committee, club, organization, or community in the State that will make the necessary arrangements for their delivery.

(4) **Labor Education** offers educational facilities designed to serve the needs of industrial workers.

(5) **Visual Instruction.** The Extension Division circulates visual aids such as motion picture reels, which cover many phases of educational work.

Persons desiring to take advantage of the facilities offered by any one of these departments may receive detailed information on request. Address the Extension Division, 130 Administration Building, University of California, Los Angeles, or 815 South Hill Street, Los Angeles, or University of California, Berkeley.

ADMISSION TO THE UNIVERSITY

STUDENT STATUS

THE STUDENTS who are admitted to the University of California at Los Angeles fall into two groups: undergraduates, and graduate students.

The undergraduates fall again into two groups: the regular students, and the special students.

The regular students are persons who have met all the requirements for admission to the University and who are pursuing, within the University, programs of study that comply with the established rules and regulations and lead to the degrees of Associate in Arts, Bachelor of Arts, or Bachelor of Science.

The special students are those persons twenty-one years of age or over who have not had the opportunity to fulfill the requirements laid down for the admission of regular students. Each student in this group is admitted only after special consideration. A special student cannot be a candidate for a degree. A special student may, however, at any time attain the status of regular student by satisfying all the requirements for that status in the college that he desires to enter.

Graduate students are of two designations: those in regular graduate status, and those in unclassified graduate status. Regular graduate students are graduates of this University or of other institutions with equivalent requirements for graduation, who are carrying on advanced (graduate) work for higher degrees or teaching credentials. Unclassified graduates are those who have received a recognized degree and who wish to undertake work leading to another bachelor's degree, or to complete preparation necessary for acceptance in regular graduate status; students so designated may take undergraduate courses only. Detailed information concerning admission to each student status follows.

ADMISSION IN UNDERGRADUTE STATUS

An applicant who wishes to enter the University must fulfill the general requirements for admission, as set forth below. Application blanks may be obtained from the Director of Admissions, 121 Administration Building, University of California, Los Angeles. Every applicant for admission is required to pay an application fee of \$3 when the first application is filed. Remittance by bank draft or money order should be made payable to The Regents of the University of California.

Admission in Freshman Standing

Admission by Certificate—

A graduate of an accredited high school may enter the University in freshman standing provided the following conditions have been satisfied:

1. *Graduation.* Graduation from an accredited high school usually requires the completion of sixteen matriculation units or credits in selected subjects.

2. Subject requirements. The high school program must include the following subjects, (a) to (f), inclusive, which represent the minimum subject requirements, and which must be approved by the high school principal as college preparatory courses.*

- (a) History 1 unit.—This may consist of any two semesters of history, civics, or social science.
- (b) English 3 units.—These may consist of any six semesters in English, public speaking, journalism, or drama.
- (c) Mathematics 2 units.—These must consist of two semesters of elementary or advanced algebra, and two semesters of plane geometry, or solid geometry and trigonometry.
- (d) Science 1 unit.—This may consist of a year course in one field of science, namely, biology, botany, chemistry, physical science, physics, physiology, or zoology. The science selected must be an advanced (3d or 4th year) laboratory science, and the two semesters must be in the same subject field.
- (e) Foreign language 2 units.—These must be in one language.
- (f) Advanced (3d or 4th year) mathematics, or foreign language, or chemistry, or physics—1 unit; or two years of a second language 2 units.

3. Scholarship requirement. For any of these required subjects completed in the ninth grade (first year of high school), *subject credit* is given irrespective of the scholarship grade received, provided, of course, it is a passing grade. In the subjects completed in the *last three years* of the high school program, however, a scholarship *average* of grade B (based on a marking system of four passing grades: A, B, C, D) must have been maintained. In computing scholarship averages *semester grades* rather than year grades are used. For example, a semester grade A in either half of one prescribed course may be used with a semester grade C in either half of any other prescribed course to obtain a B average. Required subjects taken in the last three years of high school in which a grade D has been received will not be counted either in reckoning the required scholarship average or in satisfaction of the subject requirements.

A grade earned by repeating a course may not be counted as higher than C even though a higher grade may be reported. Credits reported in this way will be accepted, however, in fulfillment of specific subject requirements. For example, an applicant who earned grade D, E, or F in plane geometry in either semester may repeat the work of that semester with the expectation that if he attains grade C or higher upon repetition he will be regarded as having fulfilled the specific subject requirement in plane geometry. This rule does not apply to grades earned in this manner prior to March, 1931.

* Although this minimum program will entitle the student to entrance to the University, it will not give him the right to enter unconditionally the curriculum of his choice unless he has credit for the prescribed subjects. Information regarding the preparation required and recommended for each curriculum may be found in the later pages of this catalogue.

Subject A: English Composition. An examination in English composition, designed to test the applicant's ability to write English without gross errors in spelling, grammar, diction, sentence structure, and punctuation, is required of all undergraduate entrants. The examination is given at the opening of each semester and at the opening of the Summer Session. Students who do not pass in the examination are required to take the Course in Subject A without unit credit toward graduation.

ADDITIONAL WAYS OF GAINING ADMISSION

The above-enumerated subjects have been selected as a central core of academic subjects for university preparation because it has been demonstrated that the student who completes them satisfactorily is most likely to be successful in his university work. In keeping, however, with the University's policy that no worthy student shall be denied admission, the Board of Admissions has been authorized to make certain exceptions to the general rules governing entrance for an applicant who may have subject shortages but a *superior* scholarship record. Every such applicant, upon submitting his official transcript of record, is given special consideration by the Director of Admissions. In general, an applicant with superior scholarship but with subject shortages may qualify for entrance to the University of California as follows:

(1) If he ranks in the upper tenth of his class and has a substantial academic preparation, although he may have subject deficiencies.

(2) If he has not less than 15 high school units of grade A or B in work taken in the ninth, tenth, eleventh, and twelfth years, or not less than 12 high school units of grade A or B in the work of the tenth, eleventh, and twelfth years; and not more than two subject deficiencies in the required list (a) to (f).

(3) If he has not less than 15 high school units with no grade lower than C in work taken in the ninth, tenth, eleventh, and twelfth years, or not less than 12 high school units with no grade lower than C in work taken in the tenth, eleventh, and twelfth years; and not less than 6 high school units of grade A or B selected from the following 10 units of academic subjects:

Third- and fourth-year English

Third- and fourth-year mathematics

Third- and fourth-year laboratory science

Third- and fourth-year foreign language

Third- and fourth-year history.

(4) If he has not less than 15 high school units with no grade lower than C in work taken in the ninth, tenth, eleventh, and twelfth years, or not less than 12 high school units with no grade lower than C in work taken in the tenth, eleventh, and twelfth years; and passes the *Examination in Subject A*; and has grade A or B in the following subjects:

Plane geometry, 1 unit

Second-year foreign language, 1 unit

Third- or fourth-year laboratory science, 1 unit

Requirement (f), 1 unit.

Admission by Examination—

An applicant for admission whose schoolwork in California or elsewhere does not entitle him to admission under the conditions outlined above, may be admitted by passing examinations of the College Entrance Examination Board. The number and selection of examinations that each applicant must take is determined by the Director of Admissions.

The College Entrance Board examinations are held in a period beginning on the Saturday prior to the third Monday in June (in 1942, June 13–20, inclusive) at the following places in California: Berkeley, Los Angeles, San Rafael, Stanford University, Santa Barbara, Carpinteria, La Jolla, Ojai, Avalon, and Claremont. A circular with information concerning the examinations and the necessary application form may be obtained directly from the College Entrance Examination Board, 431 West 117th Street, New York City. Applications and the required fee should reach the Board on or before May 16, 1942.

Removal of Admission Deficiencies

Deficiencies in the subject or scholarship requirements for admission in freshman standing by certificate may be removed in any one of eight ways, as follows:

(1) By courses in the University of California Extension Division which offers work of high school level, and college courses (class or correspondence) which may be taken to remove entrance deficiencies. Work taken in the Extension Division must be performed by achieving a standard satisfactory to the Board of Admissions, and the program of studies of the student must be approved by the Director of Admissions or by one of his associates, Berkeley or Los Angeles.

(2) By courses in the University of California Summer Sessions (Berkeley and Los Angeles), and the Intersession (Berkeley). Elementary college courses and a limited number of courses of high school level are offered. Advice about the selection of these courses should be obtained from the Director of Admissions or from one of his associates, Berkeley or Los Angeles.

(3) By courses in the College of Agriculture of the University of California, at Davis (for applicants for admission to the College of Agriculture). Entrance deficiencies may be removed by an appropriate program made up of two-year curricula or degree courses, or by a program combining both types of work. Advice about this work should be sought from the Recorder, College of Agriculture, Davis, or from the Director of Admissions, University of California, Berkeley or Los Angeles.

(4) By courses in other four-year colleges completed with satisfactory

grades, subject to the approval of the Director of Admissions. The requirements for admission in advanced standing must also be satisfied (see pages 31-32).

(5) By courses in junior colleges or State colleges completed with satisfactory grades and in proper amount. In addition, all requirements for admission to the University in advanced standing must be satisfied. The high school record of an applicant for admission with advanced standing from another collegiate institution will be considered on the same basis as the high school record of a student applying for admission to freshman standing in the University, provided his college record is satisfactory. Students who make up deficiencies in this way must continue in junior college or State college long enough to make up entrance deficiencies and, in addition, complete at least 15 units with a C plus average (1.5), or remain until completing 60 units with a C average (1.0). Students who completed the requirements in any one of the ways described on pages 27-28 will qualify for admission, provided they have at least a C average in all college work presented for advanced standing.

(6) By junior college noncertificate courses representing work of nonuniversity level taken after high school graduation. The scholarship standards for these courses are the same as those required for work taken in the high school. Work that is clearly repetition may be offered to make up a subject, but not a scholarship deficiency, such work being awarded not higher than a C grade; other work must be completed with A or B grades in order to make up scholarship deficiencies. Students following this plan must continue in junior college long enough to make up entrance deficiencies and, in addition, complete certificate work of at least 15 units with a C plus average (1.5), or 60 units with a C average (1.0).

(7) By postgraduate courses in accredited high schools.

(8) By College Entrance Board examinations (see page 28).

Information Primarily for High School Principals and Faculty Advisers

Accrediting of schools in California. An accredited high school is one that has been officially recognized by the University as fulfilling the regulations laid down by the Regents of the University for the accrediting of secondary schools in California. The list of accredited schools is published by the University annually in the month of June or July. For blank forms of application for accrediting and for other information, school principals may communicate with the Director of Relations with Schools, Los Angeles or Berkeley.

Responsibility of high school authorities. The responsibility for the granting of certificates to high school students lies with the high school authorities, and students naturally will be guided by their respective principals in making their preparation for entrance to the University.

Upon the high school authorities rests also the responsibility for determin-

ing the scope and content of courses preparatory to admission to the University and for certifying the course to the University under the proper subject designation of the high school program.

Preparation for University Curricula

In addition to the subjects required for admission to the University, as outlined on page 26, certain preparatory subjects are recommended for each University curriculum which, if included in the high school program, will give the student a more adequate background for his chosen field of study.

Attention is directed especially to the fact that physics and chemistry are recommended in the preparation for the various curricula in the College of Letters and Science. This recommendation is made not only because of the value of each or both of these subjects as preparation for the courses of a particular curriculum, but also because completion of these subjects in the high school may meet a part of the requirements of the lower division of the College (see pages 63-66) and thereby give the student greater opportunity in his freshman and sophomore years at the University to choose elective subjects. However, it should be understood that neither chemistry nor physics is required for admission to the University.

Especial care should be exercised by the high school student in selecting a foreign language. The study of a foreign language is important not only because of its value in a broad cultural preparation but also because a reading knowledge of foreign languages may be very useful in the pursuit of advanced work in many departments of the University. For department requirements and recommendations see the departmental announcements, pages 115-273.

The high school student who plans to enter the University of California, but who at the outset of his high school course is uncertain concerning which of the several University curricula he may wish to follow, should provide himself with a wide range of opportunities by completing in high school a program of studies somewhat as follows: history, 1 unit; English, 3 units; elementary algebra, 1 unit; plane geometry, 1 unit; algebraic theory, $\frac{1}{2}$ unit; trigonometry, $\frac{1}{2}$ unit; solid geometry, $\frac{1}{2}$ unit; chemistry, 1 unit; physics, 1 unit; foreign language, 4 units; freehand drawing, $\frac{1}{2}$ unit; and geometrical drawing, 1 unit; total, 15 units. Otherwise he may find graduation delayed, due to lack of proper matriculation prerequisites in required courses in the various colleges.

The student is cautioned with respect to the choice of electives that vocational or activities courses in the high school are not regarded as acceptable substitutes for basic academic studies in the preparation for University curricula. Unless this caution is observed, the student, even though he has been admitted to the University, may find that he is not equipped to do all the work necessary for the bachelor's degree in the normal four-year period.

Admission in Advanced Standing

An applicant for admission in advanced standing must present evidence that he has satisfied the subject and scholarship requirements prescribed for the admission of high school graduates in freshman standing, as described on page 25 (see also under Additional Ways of Gaining Admission, page 27), and that his advanced work in institutions of college standing has met the scholarship standard required of transferring students; namely, an average of grade C or higher in all work of college level undertaken.

An applicant may not disregard his college record and apply for entrance in freshman standing; he is subject without exception to the regulations governing admission in advanced standing. He should ask the registrars of all preparatory schools and colleges he has attended to forward complete official transcripts directly to the Director of Admissions. A statement of honorable dismissal from the last college attended must also be sent.

An applicant from a junior college or State college in California, who upon graduation from high school did not qualify for admission in freshman standing, must submit evidence that he has made up all entrance deficiencies and, in addition, has completed:

(a) Not less than 60 semester units of work acceptable for advanced standing in the college of the University to which admission is sought, with a scholarship average of at least grade C, or

(b) Not less than 15 semester units of acceptable advanced work with a distinctly high scholarship average.

The student should note that credit toward a degree in the University of California for an extension course or courses completed in another institution will be allowed only upon the satisfactory passing at this University of an examination in the course or courses so offered, unless the other institution maintains a classification of extension courses similar to that established by the University of California.

Transfer to the University of California at Los Angeles in February. It is of special importance that a student in another institution who desires to transfer to the University of California at Los Angeles after the stated registration day of the second semester should communicate in advance with the Office of Admissions, and should await assurance that late admission will be permitted before discontinuing studies in progress elsewhere. The applicant should state specifically the college in the University to which he wishes admission, and the amount of advanced credit which he expects to offer at the time of transfer.

Subject A: English Composition. Credit for Subject A (English Composition) is given upon certificate to those students who enter the University with credentials showing the completion elsewhere of the required training in composition. Of all other students, an examination by this University, at Los

Angeles or at other centers of instruction, is required (see further statement, page 38).

Surplus matriculation credit. There is no provision for advanced standing in the University on the basis of surplus high school credit.

Teaching experience. No University credit is given for teaching experience. Students presenting evidence of successful teaching experience may substitute approved courses in education for part or all of the regular requirements in Supervised Teaching upon the recommendation of the Director of Training.

Removal of Scholarship Deficiencies by Applicants from Other Colleges

Applicants otherwise eligible who seek to transfer from other institutions of collegiate rank but whose college records fail to show a satisfactory scholarship average may be admitted only when the deficiency has been removed by additional work completed with grades sufficiently high to offset the shortage in grade points. This may be accomplished by work in (1) the Interession or Summer Sessions, (2) the Extension Division of the University, or (3) other approved higher institutions.

ADMISSION OF SPECIAL STUDENTS

Special students are students of mature years who have not had the opportunity to complete a satisfactory high school program, but who, by reason of special attainments, may be prepared to undertake certain courses in the University. The conditions for the admission of each applicant under this classification are assigned by the Director of Admissions. Ordinarily, a personal interview is required before final action can be taken. In general, special students are required to confine their attention to some special study and its related branches.

Transcripts of record from all schools attended beyond the eighth grade must be submitted. An applicant for special status may be required to take an aptitude test and the Examination in Subject A. The Director of Admissions will supply, upon request, the forms of application for admission and for transcripts of high school record.

No person under the age of 21 years will be admitted as a special student, but the mere attainment of any given age is not in itself a qualification for admission.

An applicant will not be admitted directly from high school to the status of special student. Graduates of high schools are expected to qualify for admission in accordance with the usual rules; students so admitted, if not candidates for degrees, may, with the approval of the proper study-list officer, pursue elective or limited programs.

The University has no "special courses"; all courses are organized for regular students—that is, for students who have had the equivalent of a good high

school education and have been fully matriculated. A special student may be admitted to those regular courses for which, in the judgment of the instructor, he has satisfactory preparation. *A special student will seldom be able to undertake the work of the engineering and professional colleges or schools until he has completed the prerequisite subjects.*

A special student may at any time attain the status of regular student by satisfying all the matriculation requirements for admission to the University.

Instruction is not offered in such essential preparatory subjects as elementary English, United States history, elementary physics, nor, except in the Summer Session or in the Extension Division, in elementary algebra, plane geometry, or elementary chemistry.

Students more than 24 years of age at the time of admission are excused from military science and physical education.

ADMISSION FROM SCHOOLS AND COLLEGES IN FOREIGN COUNTRIES

The credentials of an applicant for admission from a foreign country, either in undergraduate or graduate standing, are evaluated in accordance with the general regulations governing admission. An application and official certificates and detailed transcripts of record should be submitted to the Director of Admissions several months in advance of the opening of the semester in which the applicant hopes to gain admittance. This will allow time for exchange of necessary correspondence relative to entrance and, if the applicant is admitted, be of assistance to him in obtaining the necessary passport visa.

An applicant from a foreign country whose education has been conducted in a language other than English may be admitted only after demonstrating that his command of English is sufficient to permit him to profit by instruction in this University. An applicant's knowledge of English is tested by an oral and written examination; this regulation applies to both graduate and undergraduate foreign students. The admission of an applicant who fails to pass this examination will be deferred until such time as he has acquired the required proficiency in the use of English.

Language credit for a foreign student. College credit for the mother tongue of a foreigner and for its literature is given only for courses taken in native institutions of college level, or for upper division or graduate courses actually taken in the University of California, or in another English-speaking institution of approved standing.

ADMISSION IN GRADUATE STANDING

As indicated on page 25 graduate students may be admitted as regular graduates or as unclassified graduates.

Applications for admission to regular graduate status will be received from graduates of recognized colleges and universities who propose to work for the

degrees of Master of Arts or Master of Science, or for the degree of Doctor of Philosophy in the fields of chemistry, English, geology, Germanic languages, history, horticultural science, mathematics, microbiology, oceanography, philosophy, physical-biological science, physics, physics-meteorology, political science, psychology, Romance philology, and zoölogy, or for the certificates of completion leading to the general secondary or junior college teaching credentials. Completed applications with supporting documents should be in the hands of the Registrar not later than September 2, 1941, for the semester beginning September, 1941, and not later than January 30, 1942, for the semester beginning February, 1942. Failure to observe these dates will necessitate the payment of a late application fee of \$2.

The basis of admission to regular graduate status is the promise of success in the work to be undertaken, evidenced largely by the previous college record. In general a minimum undergraduate scholarship equivalent to a 1.5 grade-point average (half way between grades C and B) at the University of California at Los Angeles is prescribed. Notification of acceptance or rejection is sent to each applicant as soon as possible after the receipt of his application. *Applicants are warned not to make definite arrangements for attending the University on the assumption that they will be accepted for admission, until they have received notification of acceptance.*

Unclassified graduate status is open to students holding degrees from recognized institutions; no limitation is placed upon the number of students in this status. An unclassified graduate student is in general admitted to any undergraduate course for which he has the prerequisites; he may not enroll in any graduate course, nor is any assurance implied of later admission to regular graduate status. In the event of such admission the grade-point requirements for degrees and credentials will apply to all work done in unclassified graduate status; degree credit may be allowed for such work upon the special recommendation of the department of the candidate's field of study.

Applications to either status are to be made upon the forms provided for the purpose by the Registrar, and must be accompanied by the application fee (see below); transcripts of previous work must be submitted in accordance with the instructions on the application form.

An application fee of \$3 is required of every student applying for admission to graduate status, even though he may have been in previous attendance at the University in other than graduate status.

GENERAL REGULATIONS

CERTAIN GENERAL REGULATIONS govern residence and study in the academic departments. These regulations, unless otherwise stated, concern both graduate and undergraduate students.

REGISTRATION

Each student registers in person in the University of California at Los Angeles on days appointed for this purpose, at the beginning of each semester. Registration covers the following steps: (1) filling out address card, paying fees, and receiving in exchange a card showing that the applicant has been enrolled in the University; (2) enrolling in courses according to instructions which will be posted on the University bulletin boards.

Late Admission and Registration

The student or prospective student should consult the University calendar and acquaint himself with the dates upon which students are expected to register and begin their work at the opening of the sessions. Failure to register upon the stated registration days is certain to cause difficulty in the making of a satisfactory program and to retard the progress both of the student himself and of each class to which he may be admitted.

A student who registers after the opening of the session and who later is found to be deficient in his work may not plead late admission as an excuse for his deficiency.

A fee of \$2 is charged for late registration; this fee applies both to old and new students.

A qualified student or applicant who fails to register upon the stated registration days at the opening of the session, but who, nevertheless, appears *during the first two weeks of instruction*, will in general be permitted to register. After the first week, however, he is required to obtain the written approval of all the instructors in charge of his proposed courses and of the dean of his college, before his registration can be completed. An applicant for admission *after the first two weeks of instruction* must receive the special approval of the Director of Admissions and the dean of the college to which he seeks admission. His study list must also be approved by the dean and the instructors concerned.

MEDICAL AND PHYSICAL EXAMINATION

All new students (graduate and undergraduate) must appear before the University Medical Examiners and pass a medical and physical examination to the end that the health of the University community, as well as the individual student, may be safeguarded. Evidence, satisfactory to the University Physicians, of successful immunization against smallpox is required.

Before coming to the University, every student is urged to have his own physician examine him for fitness to carry on University work, and to have all defects capable of remedial treatment, such as diseased tonsils or imperfect eyesight, corrected. This will prevent possible loss of time from studies.

A medical examination is required of every student each year; returning students are requested to make appointments with the University Physicians at the time of registration.

STUDENT HEALTH SERVICE

The purpose of the Student Health Service is to conserve the time of students for their classwork and studies, by preventing and treating acute illnesses.

Each registered student at Los Angeles may, at need, have such consultations and medical care or dispensary treatment on the campus as the Student Health Service is staffed and equipped to provide, from the time of payment of his registration fee to the last day of the current semester.

The Health Service does not take responsibility for certain chronic physical defects or illnesses present at the time of entrance to the University (as, for example, hernias, chronic bone and joint diseases or deformities, chronic gastrointestinal disorders, fibroids of the uterus, chronically infected tonsils, tuberculosis, syphilis, malignant diseases, allergic and endocrine disorders, etc.).

MILITARY SCIENCE, NAVAL SCIENCE, AND PHYSICAL EDUCATION

Upon admission, every undergraduate student, man or woman, must, unless officially notified of exemption, report immediately to the proper officer for enrollment in physical education,* in accordance with the directions in the *Registration Circular* or the announcements which may be posted on the bulletin boards. Every able-bodied male undergraduate who is under twenty-four years of age at the time of admission and who is a citizen of the United States, unless officially notified of exemption, must report immediately for enrollment in military or naval science. The student must list the courses in military or naval science and physical education upon his study card with other University courses. Upon petition a student more than twenty-four years of age at the time of admission will be excused from military science and physical education.

Information concerning the requirements in military science and physical education, including a statement of the grounds upon which a student may be excused from this work, may be obtained from the Registrar.

Petitions from students for excuse from, or deferment of, military science or physical education, filed by the petitioner after the expiration of two weeks following the date of the student's registration, will not be received except

* The University requirements in physical education referred to in this section cover Physical Education 8 (men) and 4 (women), $\frac{1}{2}$ unit courses which are required of students in each semester of the first and second years.

for illness or physical disability occurring after such date. A student who petitions to be excused from one of these subjects should nevertheless present himself to the proper instructors for enrollment while action on his petition is pending.

If a student subject to these requirements lists the prescribed course or courses on his study list, and thereafter without authority fails to appear for work in such course or courses, his neglect will be reported, after a reasonable time, to the Registrar, who, with the approval of the President, will notify the student that he is dismissed from the University. The Registrar will then inform the dean of the student's college or other officer in charge of the student's program of his dismissal. Upon the recommendation of the professor in charge of the work and with the approval of the President, the Registrar is authorized to reinstate the student and will notify the dean of the student's college (or other officer in charge of the student's study list) of such reinstatement.

The student is referred to the announcements of the departments of Military Science and Tactics and Physical Education in this Catalogue.

Naval Science and Tactics

Enrollment in the Naval Reserve Officers' Training Corps Unit may not, at any one time, exceed two hundred seventy members, and students who wish to enroll should make formal application at the time of their admission to the University. Applications must be approved by the Chairman of the Department of Naval Science and Tactics. Students thus accepted are relieved of the work otherwise prescribed in military science, as set forth in these pages, and are required to take the courses prescribed by the Department throughout the four years.

In the lower division, the requirement in naval science amounts to 10 units, taken at the rate of $2\frac{1}{2}$ units a semester. In the upper division the requirement in naval science is 4 units a semester. The courses taken in any semester in satisfaction of these requirements must be regularly listed, with other University courses, on the student's study list for that semester. Neglect of the requirements is punishable by dismissal from the University.

For further information about the work of the Naval Unit, consult the Chairman of the Department of Naval Science and Tactics, Men's Gymnasium.

Gymnasiums and Athletic Facilities

Separate gymnasiums for men and women were completed in the summer of 1932; each has an open air swimming pool. The building for men is 200 by 260 feet and has a gymnasium floor 100 by 150 feet; one wing of the building houses the headquarters of the departments of military science and tactics and of naval science and tactics. The building for women is of equal size and contains two gymnasium floors, of which the larger is 72 by 100 feet. These buildings are conveniently situated near the athletic grounds and tennis courts.

Lockers

Lockers are issued, as long as they are available, to registered students who have purchased standard locks. These are sold at \$1 each, and may be used as long as desired, or may be transferred by the purchaser to another student.

SUBJECT A: ENGLISH COMPOSITION

With the exceptions noted below, every undergraduate entrant must, at the time of his first registration in the University, take an examination, known as the *Examination in Subject A*, designed to test his ability to write English without gross errors in spelling, grammar, sentence structure, or punctuation.

The examination in Subject A is given at the opening of each semester and at the opening of the Summer Session. (See the *Registration Circular*, to be obtained from the Registrar.) A second examination for late entrants is given two weeks after the first examination in each semester; for this examination a fee of \$1 is charged.

The results of the first examination will be made known not later than the day preceding the date set for the filing of study lists for the current semester. Papers submitted in the examination are rated as either "passed" or "not passed." A student who is not present at the examination in Subject A which he is required to take, will be treated as one who has failed.

Every student who does not pass in the examination in Subject A must, immediately after his failure, enroll in a course of instruction, three hours weekly, for one semester, known as the *Course in Subject A*, without unit credit toward graduation. Should any student fail in the course in Subject A he will be required to repeat the course in the next succeeding semester of his residence in the University.

A student who maintains in the course in Subject A a grade of A is permitted, on recommendation of the Committee on Subject A, to withdraw from the course at a date determined by that committee, and is given credit for Subject A.

Every student who is required to take the course in Subject A is charged a fee of \$10, and the charge will be repeated each time he takes the course. This fee must be paid before the study list is filed.

No student will be granted the degree of Associate in Arts or a bachelor's degree until he has satisfied the requirement of Subject A.

In respect to grading, conditions, and failure, the course in Subject A is governed by the same rules as other University courses.

A student who has received a satisfactory rating in the College Entrance Examination Board examination in English 1, in English 1-2, or in the Comprehensive Examination in English, will receive credit for Subject A. A student who has passed an examination in Subject A given by the University at Berkeley or given under the jurisdiction of the University at various centers in the State annually in May or June, will receive credit for Subject A.

A student who, at any time, has failed in the University examination in Subject A does not have the privilege of taking a second examination until he has completed the course in Subject A.

A student who enters the University of California at Los Angeles with credentials showing the completion elsewhere with a grade not lower than C, of one or more college courses in English composition (with or without unit credit) is exempt from the requirement in Subject A.

Passing the Examination in English for Foreign Students does not exempt a student from the Subject A requirement.

AMERICAN INSTITUTIONS

Every candidate for a bachelor's degree or a teaching credential is required to present evidence of knowledge concerning the Constitution of the United States and American institutions and ideals. This requirement is called the "Requirement of American Institutions." Candidates may complete this requirement in any one of the following ways:

1. By completing any one of the following courses:
American Institutions 101 (see page 257).
History 171 and 172, or 172 and 173, or 179.
Political Science 3A.
2. By presenting credit for an acceptable course completed at another collegiate institution.*
3. By passing the examination in American Institutions which is offered each semester under the direction of the Academic Senate Committee on American Institutions. No fee is required for this examination, nor is degree credit granted for it. Detailed instructions, with dates of examinations, are posted upon the official bulletin boards at the proper time, or may be had at the information desk of the Registrar's Office.

PIANO TEST

Every student entering a curriculum leading to the Certificate of Completion for the Kindergarten-Primary Teaching Credential must show ability to play on the piano music suitable for use with young children. Application for the test may be made to the departmental adviser. The test should be taken at the time of admission; it must be taken before the student may be assigned to practice teaching. See the ANNOUNCEMENT OF THE SCHOOL OF EDUCATION, LOS ANGELES.

STUDY-LIST REGULATIONS

At the beginning of each semester every student is required to file with the Registrar, upon a date to be fixed by the Registrar, a registration book con-

* Candidates for general teaching credentials must have met this requirement at an approved California teacher-training institution.

taining in addition to other forms, a detailed study list bearing the approval of a faculty adviser or other specified authority. Such approval is required for all students: undergraduate, graduate, and special.

The presentation of a study list by a student and its acceptance by the college is evidence of an obligation on the part of the student to perform faithfully the designated work to the best of his ability. Withdrawal from, or neglect of, any course entered on the study list, or a change in program without the formal permission of the dean of the college, makes the student liable to enforced withdrawal from the University, or to other appropriate disciplinary action.

Ample provision is made for the student who desires to withdraw from courses in which he is regularly enrolled. Petition for change in study list should be presented to the Registrar. Attendance upon all exercises is obligatory pending receipt of formal permission to discontinue.

STUDENT RESPONSIBILITY

Each student is responsible for compliance with the regulations printed in this Catalogue and with official notices published in the *Daily Bruin*, or posted on official bulletin boards.

Application for leave to be absent, or excuse for having been absent from a University exercise, should be made to the instructor; if for unavoidable cause the student absents himself from all college exercises for one day or several days he should present his excuse to the dean of his college. Excuse to be absent does not relieve the student from completing all the work of each course to the satisfaction of the instructor in charge. For regulations concerning withdrawals from the University, see page 48 of this Catalogue.

It is the duty of the student to inform the Registrar of changes of address.

AUTHORITY OF INSTRUCTORS

No student will be permitted to enter upon the study of any subject if, in the opinion of the instructor, he lacks the necessary preparation to insure competent work in the subject.

Every student is required to attend all his class exercises and to satisfy the instructor in each of his courses of study, in such ways as the instructor may determine, that he is performing the work of the courses in a systematic manner.

Any instructor, with the approval of the President, may at any time exclude from his course any student guilty of unbecoming conduct toward the instructor or any member of the class, or any student who, in his judgment, has neglected the work of the course. A student thus excluded will be recorded as having failed in the course of study from which he is excluded, unless the faculty otherwise determines.

DEGREES AND TEACHING CREDENTIALS

Detailed statements of requirements for the degree of Associate in Arts and for bachelor's degrees issued by the University will be found in this Catalogue under headings of the several colleges and departments; for the master's degree and the doctor's degree, see the ANNOUNCEMENT OF THE GRADUATE DIVISION, SOUTHERN SECTION. The requirements for certificates of completion leading to teaching credentials are to be found in the ANNOUNCEMENT OF THE SCHOOL OF EDUCATION, LOS ANGELES.

Every undergraduate candidate for a degree or for the completion of a regular University curriculum leading to a teaching credential should fill out a form in his registration book, indicating his candidacy. The Registrar will then consult with the appropriate dean, and will advise the student whether the program he is undertaking will satisfy the requirements of his curriculum.

Degree residence. Every candidate for an undergraduate degree is required to have been enrolled throughout the year of residence in that college of the University in which the degree is to be taken; the last 24 units must be done in residence while so enrolled. It is permissible to offer a total of twelve weeks of intersessions, summer sessions, or postsessions as equivalent to one semester; but, except as noted below,* the student must complete in resident instruction either the fall or spring semester of his senior year. The regulation applies both to students entering this University from another institution and to students transferring from one college to another within the University.

All graduates receiving bachelor's degrees in any one calendar year—January 1 to December 31—are considered as belonging to the "class" of that year.

CHANGE OF COLLEGE OR MAJOR

A student may be transferred from one college (major or department) of the University to another upon the approval of the dean or other responsible officer or committee of the college (or department) to which admission is sought. A form of petition for transfer is supplied by the Registrar.

No student is permitted to transfer from one major department to another after the opening of the last semester of his senior year.

HONORS

Honors students include those who receive honorable mention with the degree of Associate in Arts in the College of Letters and Science, in the College of Applied Arts, in the College of Business Administration, or upon attaining junior standing in the College of Agriculture. Honors are granted also with

* Until September 15, 1943, students who have received teaching credentials from the Los Angeles State Normal School, the Southern Branch of the University of California, or the University of California at Los Angeles may complete the requirement of senior residence for the degree of Bachelor of Education by attendance at summer sessions of the University of California.

the bachelor's degrees. For regulations concerning honors see the sections explanatory of the curricula of the various colleges, in later pages of this Catalogue.

CREDIT AND SCHOLARSHIP

In both the University and the high school the student is credited, in respect to amount of work accomplished, in terms of units; and in respect to quality of scholarship, in terms of grades. In a further, more exact determination of the student's scholarship, the University assigns a numerical value in points to each scholarship grade. These points are called grade points and are more fully described below.

High school credit, when it is offered in application for admission to the University, is reckoned in matriculation units; one matriculation unit represents one year's work in a given subject in the high school.

High school credit, when it is offered in satisfaction of high school graduation requirements, is measured in standard secondary units; that is, the credit granted for the study of a subject throughout the school year of from thirty-six to forty weeks, is stated in terms of the standard secondary unit. Each unit represents approximately one-quarter of a full year's work in high school; in other words, four standard secondary units represents one full year's work in high school.

Relation between high school matriculation units and University units. One year's work in the high school is considered to be equivalent to one University semester's work of college level; that is, a student who desires to make up any high school subject deficiency by offering work of college level can in one University semester earn credit equivalent to the credit of one year's work in high school.

In the University, a unit of credit represents one hour weekly of the student's time for the duration of one semester in lecture or recitation, with the time necessary for preparation, or a longer time in laboratory or other exercises for which outside preparation is not required. It is expected that most students will spend two hours in preparation for one hour a week of lecture or recitation. Each University unit credit is thus understood to represent at least three hours of the student's time, and the credit value of a course is reckoned in units on that basis.

STUDY-LIST LIMITS*

Concurrent enrollment in resident courses and in extension courses is permitted only when the entire program of the student has received the approval of the proper dean or study-list officer and has been registered with the Registrar before the work is undertaken.

* Certain courses which do not give units of credit toward the degree, nevertheless displace units from a student's allowable program, as follows:

Commerce B (Shorthand) by 2 units.

Course in Subject A by 2 units.

A student on scholastic probation, or subject to supervision of the Committee on Reinstatement, is limited to a program of 12 units each semester, to which may be added the required $\frac{1}{2}$ -unit course in physical education.

In the College of Letters and Science or in the College of Applied Arts a student may present a study list aggregating 12 to 16 units each semester without special permission. A student who has a heavy outside work program or who is not in good health is urged to plan, with the dean's approval, a study program below the 12-unit limit. After the first semester a student may on petition carry a program of not more than 18 units, if in the preceding semester he attained an average of at least two grade points for each unit of credit in his total program (of 12 units or more). Except in the first semester of the freshman year, a student in good academic standing, may without special permission add $\frac{1}{2}$ unit of physical education to the allowable study list. With this exception, all courses in military or naval science and physical education and repeated courses are to be counted in study-list totals. Any work undertaken in the University or elsewhere simultaneously with a view to credit toward a degree must also be included.

In the College of Business Administration, a student who is not restricted in his study list and who is not on probation may present a study list aggregating 12 to 18 units a semester without special permission with respect to quantity of work, save that in his first semester of residence the maximum is 16 units.

In the College of Agriculture a regular student who is free from deficiencies in the work of the previous semester, and who is in good academic standing may register for not more than 18 units. To this maximum may be added the required physical education course of $\frac{1}{2}$ unit.

Students enrolled in the lower division who are carrying work preparatory to admission to the junior year of the College of Engineering, or the College of Mining, or the Curriculum in Optometry, and who are free from deficiencies in the work of the previous semester, may register for not more than 18 units of new work. Students with deficiencies will be limited to 16 units, including repeated work. If students in these professional curricula later transfer to nonprofessional curricula in another college, their credits will be reduced in accordance with the limits of that college.

A special student ordinarily will have his study list specified at the time of his admission; it is limited to 16 units.

Regulations concerning study-list limits for graduate students will be found in the ANNOUNCEMENT OF THE GRADUATE DIVISION, SOUTHERN SECTION.

Program Limitation

Undergraduate programs must not carry more than three consecutive hours of lecture, recitation, or discussion on any one day, nor may they carry a total of more than five consecutive hours including laboratory, military or naval science, physical education, typing, or field work.

GRADES OF SCHOLARSHIP; GRADE POINTS

In the University, the result of the student's work in each course (graduate and undergraduate) is reported to the Registrar in one of six scholarship grades, four of which are passing, as follows: A, excellent; B, good; C, fair; D, barely passed; X and F, not passed. The designations "passed" and "not passed" may be used in reporting upon the results of certain courses taken by honor students in the College of Letters and Science.

Grade X indicates a record below passing, but one which may be raised to a passing grade without repetition of the course by passing a further examination or by performing other tasks required by the instructor. Grade F denotes a record so poor that it may be raised to a passing grade only by repeating the course.

The term "incomplete" is not used in reporting the work of students. The instructor is required, for every student, to assign a definite grade based upon the work actually accomplished, irrespective of the circumstances which may have contributed to the results achieved.

Course reports filed by instructors at the end of each semester are final, not provisional.

Effective July 1, 1941, grade points are assigned to the respective scholarship grades as follows: for each unit of credit, the scholarship grade A is assigned 3 points; B, 2 points; C, 1 point; D, X, and F, no points. Removal of grade X or F entitles the student to grade points in accordance with the regulations stated under Removal of Deficiencies, below.

In order to qualify for the degree of Associate in Arts, or for any bachelor's degree at Los Angeles,* the student must have obtained at least as many grade points as there are units in the total credit value of all courses undertaken by him in the University of California.† A similar regulation is in effect in the colleges on the Berkeley campus.

REMOVAL OF DEFICIENCIES

A student who receives grade D, X, or F in a lower division course may, *upon repetition of the course*, receive the grade assigned by the instructor and grade points appropriate to that grade. The foregoing privilege does not apply to grades received in upper division or graduate courses. A student who receives grade X or F in an upper division or graduate course, may, upon successful repetition of the course, receive unit credit for the number of units passed, but ordinarily will not receive grade points. (For exceptions see below.)

For the purpose of raising grade X to a passing grade the student may, with the consent of the instructor concerned, and of the dean of the appropriate

* Candidates for teaching credentials must also maintain a C average in supervised teaching.

† Courses taken by honor students of the College of Letters and Science without letter grades are not counted in determining the grade-point status.

school, college or division, have the privilege of a condition examination. In courses of the Intersession and Summer Session, however, reexaminations for the removal of deficiencies are not provided by the University.

Any examination, term paper, or other exercise which the instructor may require in order for the student to have grade X raised to a passing grade in a course is a "condition examination." For every such examination a formal permit, to be obtained in advance from the Registrar, must be shown to the instructor in charge of the examination; otherwise he will lack authority to consider and report upon the work submitted by the student. For every course in which a special examination is undertaken with a view to raising grade X to a passing grade, a fee of \$2 is charged. The fee for a permit for two or more special examinations of this type is \$3. There is no fee for a re-examination (final examination taken with the class), if the final examination is the only task required by the instructor from the student for the purpose of raising grade X to a passing grade and if this final examination is taken with the class not later than the close of the next succeeding semester of the student's residence in which the course is offered. A form of petition for a special examination or for admission to an examination with the class, with instructions concerning procedure, may be obtained from the Registrar. Grade X received by a student in a course in which a final examination is regularly held can be raised to a passing grade only by passing a satisfactory final examination in the course.

If a student who has received grade X in any course fails to raise it to a passing grade by the end of the next semester of his residence in which the course is regularly given, then the grade shall be changed to F. If in the meantime, however, a student has repeated the course and has again received grade X, his grade in the course will remain grade X, as would be the case if he were taking the course for the first time. A student who fails to attain grade D or a higher grade in any course following a reexamination for the purpose of raising grade X to a passing grade, will be recorded as having received grade F in the course.

A student who raises a grade X or F, incurred in an upper division or graduate course, to a passing grade by successful repetition of the course, and a student who raises a grade X, incurred in any course, lower division, upper division, or graduate, to a passing grade by *examination* or by performing other tasks required by the instructor (short of actual repetition of the course), shall ordinarily receive no grade points. An exception to this rule is permitted, however, when the deficiency consists solely in the omission of the final examination or other required exercise on account of illness or other unavoidable circumstances, the student's performance in all other respects having been satisfactory. In such circumstances the student may petition to have that grade assigned which he would have received had the work been completed without delay, together with the appropriate number of grade points. His petition must

set forth in detail the reasons for his failure to complete the course within the usual limit of time. The Registrar will then refer the petition to the proper authority for a decision.

Any student who is reported as having failed in any prescribed course in military or naval science or physical education, or the course in Subject A, will be required to repeat the course during his next regular semester of residence in which the course may be given.

MINIMUM SCHOLARSHIP REQUIREMENTS

The following regulations apply to all undergraduate students at Los Angeles:

(A) *Probation.* A student shall be placed on probation

(1) If at the close of his first semester his record shows a total deficiency of six or more grade points; or

(2) If at the close of any subsequent semester, his grade-point average is less than 1.0 (a C average), computed on the total of all courses undertaken in this University for which he has received a final report.

(B) *Dismissal.* A student shall be subject to dismissal from the University

(1) If in any semester he fails to pass with a grade of C or higher courses totaling at least 4 units; or

(2) If while on probation his grade-point average for the work undertaken during any semester falls below 1.0 (a C average); or

(3) If after two semesters of probationary status he has not obtained a grade-point average of 1.0 (a C average), computed on the total of all courses undertaken in this University for which he has received a final report.

A student dismissed for unsatisfactory scholarship will be excluded from the University for an indefinite period, with the presumption that his connection with the University will be ended by such exclusion.

Students at Los Angeles coming under the above regulations are subject to the supervision of the Committee on Reinstatement, which has adopted a policy of limiting study lists of students under its charge to twelve units or less, exclusive of required physical education.

The action to be taken in respect to students in graduate status who acquire scholarship deficiencies is left to the discretion of the Dean of the Graduate Division, Southern Section.

CREDIT BY EXAMINATION

Provision is made whereby an undergraduate student in residence and in good standing may under certain conditions take examinations for degree credit either (a) in courses offered in the University, without formal enrollment in them, or (b) in subjects appropriate to the student's curriculum, but not offered as courses by the University. The results of all such examinations, with grades and grade points, are entered upon the student's record in the same manner as for regular courses of instruction (see Grades of Scholarship, above). No fees are required.

Arrangements must be made in advance with the dean of the student's college; his approval and that of the instructor who is appointed to give the examination, is necessary before an examination can be given.

Application for examination for advanced standing on the basis of work done before entrance to the University should be made to the Admissions Office at the time of entrance to the University. If a student who has already matriculated proposes to enter upon study outside the University of California with a view to asking the University to examine him upon that work and to allow him credit toward the degree, he must make all arrangements *in advance* with the department concerned and with the Director of Admissions; fees are required for such validation examinations.

The application form for examinations may be obtained from the Registrar.

FINAL EXAMINATIONS

Final examinations are obligatory in all undergraduate courses except laboratory courses and other courses which, in the opinion of the Committee on Courses, because of resemblance to laboratory courses, require special treatment. In laboratory courses final examinations are held at the option of the department in charge. All examinations will, so far as practicable, be conducted in writing, and a maximum time will be assigned beforehand for each examination, which no student will be allowed to exceed. The time for examination sessions will not be more than three hours. Leave to be absent from a final examination must be sought by written petition to the proper faculty.

If a final examination is one of the regular requirements in a course, there can be no individual exemption from the examination, except as provided in the preceding paragraph.

Any department may examine a student, at the end of the semester immediately preceding his graduation, in the major subject in which the department has given instruction; and a student to be examined in a major subject may, at the discretion of the department, be excused from all final examinations in courses in the department of the major subject in which he has been enrolled during the semester. Credit value may be assigned to this general examination in the major subject.

Any student tardy at an examination may be debarred from taking it, unless an excuse for his tardiness, entirely satisfactory to the examiner, is presented.

Reexaminations are permitted only for the purpose of raising grade X (not passed) to a passing grade. In courses of the Summer Session, however, reexaminations for the removal of deficiencies are not provided by the University. A student who has received grade B, C, or D in any course is not allowed a reexamination for the purpose of raising the grade. Concerning methods of raising non-passing grades to passing grades, see under Removal of Deficiencies, above.

LEAVE OF ABSENCE AND HONORABLE DISMISSAL

A *brief leave of absence*, to expire on a definite date, may be issued to a student in good standing who finds it necessary to withdraw for a short time, but who wishes to retain his status in his classes and to resume his work before the close of the current semester. No excuse for absence will relieve the student from the necessity of completing all the work of each course to the satisfaction of the instructor in charge. Petition forms for leaves of absence, with complete instructions, may be obtained at the office of the Registrar.

A student must apply for leave to be absent from or excuse for having been absent from any college exercise other than a final examination, to the instructor in charge of the exercise; unless, for unavoidable cause, the student is obliged to absent himself from all college exercises for several days, in which event he should apply for a brief leave of absence as directed above. Leave to be absent from a final examination must be sought by written petition to the proper faculty.

An *honorable dismissal* may, upon petition, be issued to any student in good standing provided he complies with the instructions on the form of petition, which may be obtained from the Registrar.

A student is in good standing if he is entitled to enjoy the normal privileges of a student in the status in which he is officially registered. Students dismissed by reason of scholarship deficiencies, and students under supervision or on probation, may receive letters of honorable dismissal which bear a notation concerning their scholarship; students under censure or suspension may not receive an honorable dismissal but may receive transcripts of record which bear a notation concerning such censure or suspension.

Discontinuance without notice. Students who discontinue their work without formal leave of absence do so at the risk of having their registration privileges curtailed or entirely withdrawn.

TRANSCRIPTS OF RECORD

Each student, upon formal application to the Registrar, may receive or may have issued on his behalf, without cost, one transcript showing all work taken by him in this division of the University. Subsequent transcripts will be issued upon application at a cost of 50 cents each.

DISCIPLINE

When a student enters the University it is taken for granted by the University authorities that he has an earnest purpose and that his conduct will bear out this presumption. If, however, he should be guilty of unbecoming behavior or should neglect his academic duties, the University authorities will take such action as, in their opinion, the particular offense requires. Students who fail to

make proper use of the opportunities freely given to them by the University must expect to have their privileges curtailed or withdrawn.

There are five degrees of discipline: warning, censure, suspension, dismissal, and expulsion. Censure indicates that the student is in danger of exclusion from the University. Suspension is exclusion from the University for a definite period. Dismissal is exclusion for an indefinite period, with the presumption that the student's connection with the University will be ended by it. Expulsion is the most severe academic penalty, and is final exclusion of the student from the University.

By authority of the Academic Senate, the President of the University is entrusted with the administration of student discipline with full power to act.

MISCELLANEOUS INFORMATION

EXPENSES—LIVING ACCOMMODATIONS—EMPLOYMENT— SCHOLARSHIPS—LOANS

GENERAL EXPENSES AND FEES*

THE QUESTION OF EXPENSE while attending the University is of importance to every student. It is difficult, however, to give specific information about yearly expenditures. In a student body of several thousand members there are so many different tastes, as well as such a wide range of financial resources, that each student must determine his budget in keeping with his own needs and financial condition. It is possible to live simply, and to participate moderately in the life of the student community, on a modest budget. The best help the University authorities can offer the student in planning his budget is to inform him of certain definite expense items, and acquaint him with others that he will in all probability have to provide for.

A table of estimated minimum, moderate, and liberal budgets for one college year of nine months is given on page 56.

Fees and deposits are payable preferably in cash. If a check is presented the face amount must not exceed all the fees to be paid.

Incidental fee. The incidental fee for all undergraduate students is \$29 a semester. This fee, which must be paid each semester on the date of registration, covers certain expenses of students for library books, for athletic and gymnasium facilities and equipment, for lockers and washrooms, for registration and graduation, and for such consultation, medical advice, and dispensary treatment as can be furnished on the campus by the Student Health Service. It also includes the rights and privileges of membership in the Associated Students, valued at \$4; see page 00. No part of this fee is remitted to those students who may not desire to make use of any or all of these privileges. If a student withdraws from the University within the first four weeks from the date of his registration, a part of this fee will be refunded. The incidental fee for graduate students is \$25 each semester; it does not include membership in the Associated Students.

Students who are classified as nonresidents of the State are required to pay, each semester, in addition to the incidental fee, a tuition fee of \$75.† It is important for every prospective student to note carefully the rules governing legal residence in the University, which are stated on page 53.

* During registration and for the first few days of instruction, fees will be paid as part of the registration procedure. Thereafter, they will be paid in the office of the Business Manager, Administration Building. The cashier's department of this office is open from 8:30 A.M. to 3 P.M. daily, and from 8:30 A.M. to 12 M. on Saturday.

† If a student registers for less than 12 units the tuition fee is \$5 a unit or fraction of a unit, with a minimum of \$25.

Fee reduction for graduate students. Graduate students in full-time occupations, who under the rules of the University are not permitted to carry a program of studies in excess of 4 units, may be allowed a reduction of the incidental fee from \$25 to \$15. The term "full-time occupations" is interpreted as applying to those persons who are in regular salaried positions and whose duties require their attention for seven or eight hours a day.

Tuition. The University charges a tuition fee to every student who has not been a legal resident of the state of California for a period of one year immediately preceding the opening day of the semester during which he proposes to enroll. Such a student is classified as a nonresident. A student entering the University for the first time should read carefully the rules governing determination of residence, as quoted below, to the end that he may be prepared, in the event of classification as a nonresident of California, to pay the required tuition fee. This fee must be paid at the time of registration. *The attention of the prospective student who has not attained the age of 22 years and whose parents do not live in the state of California, is directed to the fact that presence in the state of California for a period of more than one year immediately preceding the opening day of the semester in which he proposes to attend the University, does not, of itself, entitle him to classification as a resident.* An alien who has not made, prior to the opening day of a semester in which he proposes to attend the University, a valid declaration of intention to become a citizen of the United States is classified as a nonresident student.

Tuition in the academic colleges is free to students who have been residents of the state of California for a period of one year immediately preceding the opening of the semester during which they propose to attend the University. Students who are classified as nonresidents are required to pay a tuition fee of \$75 each semester. This fee is in addition to the incidental fee.

If a student is in doubt about his residence status, he may communicate with the Attorney for the Regents in Residence Matters. On the day preceding the opening day of registration and during the first week of instruction of each semester the Attorney may be consulted upon the campus at a place which may be ascertained by inquiry at the Information Desk in the Registrar's Office; throughout the registration period, he may be consulted during the hours of registration at the place where registration is being conducted. At other times he may be consulted or communications may be addressed to him at Room 901, Crocker Building, San Francisco, California.

The eligibility of a student to register as a resident of California may be determined only by the Attorney for the Regents in Residence Matters. Every entering student, and every student returning to the University after an absence, is required to make a "Statement as to Residence" on the day of registration, upon a form which will be provided for that purpose, and his status with respect to residence will be determined by the Attorney soon after registration. Old students are advised that application for reclassification as a

resident student must be filed within ten days after regular registration; by late registrants, within one week after registration. Application for a change of classification with respect to some preceding semester will not be received under any circumstances.

Laboratory fees. Laboratory charges, apportioned on the basis of materials used and for certain costs involved in the maintenance and operation of laboratory equipment, differ with the individual student's course, the range of fees in the elementary laboratories being from \$1.50 to \$30 a semester. The fees are stated in the descriptions of the several courses in later pages of this Catalogue.

Other Fees

Late payment fee. For delayed payment of any of the incidental, nonresident tuition, or departmental fees or deposits, \$1. Departmental fees and deposits must be paid by date set for filing registration book.

Application fee, \$3. This fee is charged every applicant for admission to the University, and is payable at the time the first application is filed. Applicants for graduate status must pay this fee, even though it may have been paid once in undergraduate status; see page 34.

Medical examination: original appointment, or deferment arranged in advance, no fee; *fee for a second appointment, \$1.*

Late application for admission, \$2.

Late registration, \$2. (After date set as registration day.)

Late filing of registration book, \$1. (More than five days after registration.)

Late examination in Subject A, \$1.

For courses added or dropped after date set for filing registration book, \$1 for each petition.

For reinstatement of lapsed status, \$5.

For duplicate registration card, \$1.

For late application for teaching assignment, \$1.

For late notice of candidacy for the bachelor's degree, \$2.

For late return of athletic supplies, \$1 minimum.*

For failure to empty locker within specified time, \$1.

Returned check collection, \$1.

Deposit required of applicants for teaching positions who register with the Appointment Secretary: Persons registering with the Appointment Secretary are required to make a deposit of \$5 to cover the clerical cost of correspondence and copying of credentials.

* Supplies or equipment not returned before the close of the fiscal year must be paid for in full; return after that date is not permitted.

Refunds

Refund of a part of the incidental fee is made to a student who withdraws from the University within four weeks from the date of his registration.

Refund on the nonresident fee of \$75 is made in accordance with a schedule on file in the offices of the Registrar and Cashier; dates are computed from the first day of instruction of the semester.

No claim for refund of fees will be considered unless such claim is presented during the fiscal year to which the claim is applicable. No student will be entitled to a refund except upon surrender to the Cashier of his registration certificate and receipt. Students should preserve their receipts.

Rules Governing Residence

The term "nonresident student" is construed to mean any person who has not been a bona fide resident of the state of California for more than one year immediately preceding the opening day of a semester during which he proposes to attend the University.

The residence of each student is determined in accordance with the rules for determining residence prescribed by the provisions of Section 52 of the Political Code of California, provided, however:

1. That every alien student who has not made a valid declaration of intention to become a citizen of the United States, as provided by the laws thereof, prior to the opening day of the semester during which he proposes to attend the University, is deemed to be a nonresident student.

2. That no person is deemed to have made a valid declaration of intention to become a citizen of the United States whose declaration of intention at the time when it is presented in support of an application for classification as a resident student in the University has lost its force or effectiveness, or who can not, under said declaration, without renewing the same or making a new declaration, pursue his declared intention of becoming a citizen of the United States.

Every person who has been, or who shall hereafter be classified as a nonresident student shall be considered to retain that status until such time as he shall have made application in the form prescribed by the Registrar of the University for reclassification, and shall have been reclassified as a resident student.

Every person who has been classified as a resident student shall, nevertheless, be subject to reclassification as a nonresident student and shall be reclassified as a nonresident student whenever there shall be found to exist circumstances which, if they had existed at the time of his classification as a resident student, would have caused him to be classified as a nonresident student. If any student who has been classified as a resident student shall be determined to have been erroneously so classified, he shall be reclassified as a nonresident student, and if the cause of his incorrect classification shall be found to be due to any concealment of facts or untruthful statement made by him at or before the time

of his original classification, he shall be required to pay all tuition fees which would have been charged to him except for such erroneous classification, and shall be subject also to such discipline as the President of the University may approve.

The nonresident tuition fee may be remitted in whole or in part in the case of students in regular graduate status [except in the professional schools, e.g., Jurisprudence, Medicine, Education (leading to the Ed.D. degree), and except in the case of foreign students whose tuition is paid by their governments], who have proved that they are distinguished scholars and who are carrying full programs of work toward the fulfillment of requirements for academic higher degrees. No graduate student in regular graduate status, no matter how distinguished his scholarship may have been, will be exempted from the payment of the tuition fee if he is merely carrying some lower division courses for his cultural advancement.

The term *distinguished scholarship* in connection with the question of exemption from the payment of the tuition fee is interpreted as follows: the scholarship standing must have been excellent throughout a period of no less than two years just preceding the time of application for this privilege. Moreover, only students from institutions of high standing in scholarly work will be considered. Applicants for this privilege will be required to have sent to the Dean of the Graduate Division confidential letters about themselves from persons who are thoroughly acquainted with their personalities and their intellectual achievements. It should be clear from these statements, therefore, that only the decidedly exceptional student will be eligible for the privilege of exemption from the payment of tuition if he is a nonresident. Students exempted from the tuition fee pay only the incidental fee.

The privilege of exemption from the nonresident tuition fee may be revoked at any time at the discretion of the Dean of the Graduate Division if in his judgment a student fails to maintain distinguished scholarship, or if he proves himself unworthy in other respects.

LIVING ACCOMMODATIONS AND GENERAL EXPENSES FOR WOMEN

A list of approved accommodations for women students is prepared for distribution at the beginning of each semester by the Dean of Women and may be obtained at her office, 239 Administration Building. No woman is permitted to complete her registration until her living accommodations have received the approval of the Dean of Women. *Women are not permitted to live in public apartments unless satisfactory arrangements concerning chaperonage are made in advance with the Dean of Women.*

Mira Hershey Hall, made available by the will of the late Miss Mira Hershey, is the only dormitory maintained on the Los Angeles campus. It is conveniently situated on the campus and accommodates 129 women students. Board and

room costs \$45 a month. Applications for residence for 1942-43 should be filed with the Dean of Women as early as possible; no vacancies exist for 1941-42.

A number of desirable privately owned halls of residence offer accommodations to women; two, each with a capacity of fifty students, provide board and room for from \$40 to \$45 a month; others, with capacities ranging from 24 to 99, have housekeeping accommodations for from \$18.75 to \$25 a month. Fifteen dollars a month is suggested as a sufficient amount for food for housekeeping students. Private homes offer housekeeping accommodations for as low as \$15 a month, and board and lodging for \$40 or more a month.

Self-supporting women students usually can get board and lodging in exchange for three hours of household work daily. All self-supporting women should consult the staff of the Dean of Women with respect to their plans.

Extracurricular expenses may be kept at a minimum. The expense of participating in general and honorary or professional organizations need not cost more than \$5 a semester. Membership in a social sorority may be estimated at from \$10 to \$25 a month, in addition to the cost of board and lodging.

The student living at home, although she may have no expense for board and lodging, must plan for transportation and lunch on the campus. While transportation varies according to the location of each student's home, \$10 a month is an average estimate. Lunches may be estimated at \$5 to \$8 a month. Some students reduce or eliminate this expense by bringing their lunches from home.

Personal expenses are obviously variable items. The average woman student's estimate for clothing is from \$100 to \$300 for each University year; for drugs and beauty shop, from \$15 to \$40; for recreation, from \$10 to \$50.

LIVING ACCOMMODATIONS AND GENERAL EXPENSES FOR MEN

The cost of attending the University varies greatly with the individual student; however, the majority of men students living away from home spend between \$600 and \$800 a year. Students classified as nonresidents of California must also pay the tuition fee of \$75 each semester.

The cost of board and room is estimated as from \$35 to \$45 a month. A list of rooming and boarding houses for men is prepared by the Dean of Undergraduates, and may be obtained at Room 202, Administration Building. The University does not maintain on the Los Angeles campus any dormitories for men. Students attending the University and living at home should make an estimate of the cost of transportation and include this item in the year's budget.

The initiation fees for professional fraternities vary from \$5 to \$12, and for social fraternities from \$50 to \$100. The dues for social fraternities average about \$5 a month and the cost of living in a fraternity house averages about \$40 a month. This amount does not include the cost of social affairs which may be given by the fraternity in the course of the year.

There are also coöperative housing units for men in which each student gives

several hours a week to the work of the organization, and thereby greatly reduces his cash outlay for room and board. Information concerning the co-operative units is available at the Office of the Dean of Undergraduates.

PRINCIPAL ITEMS OF EXPENSE ESTIMATED ON A NINE MONTHS' BASIS

Expense Items	Minimum		Moderate		Liberal	
	Men	Women	Men	Women	Men	Women
Incidental Fee.....	\$ 58	\$ 58	\$ 58	\$ 58	\$ 58	\$ 58
Books and Supplies.....	20	20	40	40	60	60
Board and Room or Housekeeping.	180	200	325	315	400	405
Miscellaneous (Recreation, club dues, laundry, drugs, etc.).....	25	30	75	75	200	250
Total.....	\$283	\$308	\$498	\$488	\$718	\$773

NOTE: It is impossible to include in the above figures such variable items as clothes or transportation to and from home, or fees other than the incidental fee. Students classified as nonresidents of the State must also add to their estimated budgets the yearly tuition fee of \$150.

SELF-SUPPORT AND STUDENT EMPLOYMENT

Many students earn part, and a few earn all, of their expenses while attending the University. The University authorities are eager to offer as much encouragement as possible to students who must maintain themselves, but long experience has brought out the fact that the self-supporting student, early in his college life, may have to face unforeseen problems which affect his welfare.

University work demands the best that a student can give to it. The following statements are made, therefore, not to discourage the able student who must do outside work, but to forewarn him with facts and information so that he may plan carefully and intelligently, and by so doing overcome many of the difficulties that might otherwise lead to disappointment and failure.

(1) Whenever possible, it is wise for a student to use his savings to make the first semester of residence in the University one of freedom to give full time to academic work. He may then have an opportunity to adjust himself to new surroundings, to establish sound habits of study, and to maintain a good scholastic standing, and thereby build a foundation for the rest of his University course. By the end of the first semester the student should know the demands of university life and his own capabilities well enough to make it possible to plan, for subsequent semesters, a combined program of studies and work for self-support. Furthermore, a new student usually has difficulty in finding remunerative employment.

(2) The regular undergraduate four-year course based on an average of 15

units of academic work a semester is organized on the supposition that students will give the major part of their time and attention to their studies while attending the University. Therefore, a student who must give considerable time and energy to outside work should consider at the outset the possibility that more than the usual eight semesters (four years) may be required to complete the program for the degree, if he is to maintain his scholastic standing and his health, and to enjoy the advantages of university life.

With reasonable diligence, a student in good health carrying an average program of study in the undergraduate departments can give as much as twelve hours a week to outside employment without seriously interfering with his college work; employment in excess of this amount should be accompanied by a reduction of the academic program carried.

(3) Students who are not physically strong or in good general health should not, under ordinary circumstances, attempt to be wholly self-supporting because of the danger of jeopardizing health and academic progress.

Bureau of Guidance and Placement

Students desiring employment should register with the Bureau of Occupations, 39 Administration Building.

Little can be done in obtaining employment for students who are not actually on the ground to negotiate for themselves. Since, in general, it is difficult for a stranger to get remunerative employment, no student should come to Los Angeles expecting to become self-supporting at once but should have on hand sufficient funds to cover the expenses of at least the first semester.

Board and lodging can frequently be had in exchange for three hours of household work daily. Limited opportunities also exist for obtaining employment on an hourly basis in the following fields: typing and stenography, clerical work, housework, care of children, general manual labor, etc. The rates paid for this kind of employment vary from twenty-five to fifty cents an hour. A student qualified to do tutoring and other specialized types of work can occasionally find employment on a remunerative basis.

The National Youth Administration program is also handled through the Bureau of Occupations and is available to a limited number of needy students with good scholarship who are unable to secure other employment.

Through its full-time placement service, the Bureau of Occupations recommends graduates and students for positions in fields other than teaching or educational research. This service is available to students when they leave the University or if they desire an improvement in their employment situation after having had some experience.

Appointment Office for Teachers. The Appointment Secretary recommends graduates, students, and former students for positions in universities, colleges, junior colleges, high schools, and elementary schools, and for educational research, thereby assisting qualified candidates to obtain permanent employ-

ment or promotion in the work for which they have prepared themselves. A fee of \$5 is charged each candidate for clerical services; there is no expense to school officials seeking teachers through this office. Communications should be addressed to the Manager of the Bureau of Guidance and Placement, 123 Education Building.

The University reserves the right to refuse to extend its cooperation to candidates who apply for positions for which they are manifestly unfit. In every recommendation the aim is to keep in mind the best available persons, remembering candidates already employed as well as those who may be out of employment.

Candidates for positions are urged to inform the office of the result of their candidacy, and of their desires for future promotion or change of occupation. All persons who obtain the services of students through either the Bureau of Occupations or the Office of the Appointment Secretary are urged to inform the Manager of the Bureau of Guidance and Placement concerning the quality of service given.

UNDERGRADUATE SCHOLARSHIPS

The Committee on Scholarships of the University of California at Los Angeles recommends annually for award a limited number of scholarships to undergraduate students in the University of California at Los Angeles. Because of the limited number of scholarships available, the Committee must restrict the awards to students who have been in attendance at least one semester (except for the Alumni Freshman Scholarships described below). The Committee rates all candidates with respect to scholarship, need, and character, and bases its recommendations upon relative ratings of all the candidates applying at any one time. Applications for these scholarships with letters and testimonials, should be filed with the Registrar on or before March 25 preceding the academic year for which the awards are to be made; if received later they will not ordinarily be considered until the following year. A blank form of application, which gives all the necessary information, may be obtained from the Registrar. *No vacancies exist for the year 1941-42.*

The scholarships awarded for the year 1941-42 were as follows:

University Scholarships: twenty-four of \$200 each.

B. B. Campbell Scholarships: four of \$50 each, awarded to freshmen who have completed one semester at the University of California at Los Angeles.

Lena De Groff Scholarships: five of \$75 each.

The Governor Gage Scholarship of approximately \$300.

The Governor Stephens Scholarship of approximately \$300.

The Governor Merriam Scholarship of approximately \$300.

M. Effie Shambaugh Scholarship of \$38.

Walter Loewy Scholarships: two of \$200 each.

Lulie Chilton Scattergood Scholarship of \$154.

Marguerite V. Croll Scholarship of \$100.

Charles Boyer Scholarship of \$100.

Paramount Pictures Scholarship of \$100.

Kappa Alpha Phi Scholarship of \$80.

Chadwick Productions Scholarship of \$50.

Faculty Women's Club Scholarship of \$125.

Lucien N. Brunswig Scholarship of \$75.

Will Rogers Memorial Scholarships: sixteen varying from \$75 to \$250 each.

Will Rogers Memorial Awards: eleven varying from \$100 to \$300 each.

A limited number of scholarships known as the *LaVerne Noyes Scholarships* are available to needy veterans of the World War or their children; twenty were awarded for 1941-42.

Certain scholarships were available for students in the College of Agriculture; for definite information consult the PROSPECTUS OF THE COLLEGE OF AGRICULTURE.

In addition to the above-enumerated scholarships, there are several whose recipients are named by the donors; among them is the *American Legion Auxiliary Scholarship*, which is awarded to the child of a World War veteran.

Alumni Freshman Scholarships

The California Alumni Association makes available each year a certain number of scholarships to entering freshmen. These Alumni Freshman Scholarships consist of cash awards of varying amounts for freshmen who enroll on any of the three campuses. Candidates for the Alumni Freshman Scholarships may receive information by writing to the Executive Manager, California Alumni Association, 301 Stephens Union, University of California, Berkeley. Information concerning similar scholarships available for the Los Angeles campus only may be had from Mr. John B. Jackson, University of California at Los Angeles Alumni Association, 402 Westwood Boulevard, Los Angeles. Applications must be on file on or before February 15 in any one year.

In the selection of the beneficiaries of these awards, the alumni committees in charge will choose applicants not only with substantial scholastic ability but also of high character and outstanding qualities of leadership, who give promise of reflecting credit upon themselves and the University.

GRADUATE SCHOLARSHIPS AND FELLOWSHIPS

For information concerning graduate scholarships, consult the ANNOUNCEMENT OF THE GRADUATE DIVISION, SOUTHERN SECTION.

LOANS

Various organizations and individuals have contributed toward the building up of several student loan funds. The gifts for this purpose are administered by the University in accordance with the conditions laid down by the donors,

and are sufficient to make small loans, for short periods of time and usually without interest, to students in an emergency. For further information, apply to the Dean of Undergraduates or the Dean of Women.

PRIZES

The generosity of alumni and friends of the University also provides each year for competitive prizes and awards in several fields. The following awards were announced at Commencement, June 14, 1941:

Alpha Chi Delta Award. Given by the Alpha Chi Delta Fraternity to the junior woman in economics, commerce or business administration with the highest academic standing attained during the freshman and sophomore years.

Alpha Chi Sigma Prize. Awarded by Alpha Chi Sigma Fraternity on the basis of a competitive examination in freshman chemistry.

Alpha Kappa Psi Medallion Award. Given by the Alpha Kappa Psi Fraternity to the man graduating in business administration with the best scholastic average attained in the last three years of undergraduate study.

Blue Circle C Society Honor Medal. Awarded on the basis of scholarship, character and service.

Chi Omega Prize. Awarded by the Gamma Beta Chapter of Chi Omega Sorority in the fields of economics, political science, sociology or psychology to the outstanding senior woman in one of the above mentioned departments.

Gimbel Prize. A medal and prize given by Mr. Jake Gimbel to the man who has shown the best attitude toward the University in athletic endeavor.

Medals of the Government of France. Awarded for meritorious record in scholarship in French.

Mu Phi Epsilon Prizes. Given by the Los Angeles Alumnae Club of Mu Phi Epsilon to the women students winning the music competition in voice or any musical instrument.

Phi Beta Awards. Given by Phi Beta Fraternity to the outstanding senior for activity and scholarship in the field of music and dramatics.

Phi Chi Theta National Key Award. Given by the Local Chapter of Phi Chi Theta to the junior woman in business administration or commerce with the highest record in scholarship, leadership, and activities.

Phi Lambda Upsilon Prize. Awarded on the basis of a comprehensive examination covering the four-year course of undergraduate chemistry.

Pi Mu Epsilon Prize. Awarded on the basis of a competitive examination in calculus.

PUBLIC LECTURES, CONCERTS, AND ART EXHIBITIONS

As opportunity offers, the University presents to its members and to the public lectures of general and of special or scholarly interest by qualified persons. These lectures are intended to supplement and stimulate the work of all departments of the University.

The musical interests of the University are served by numerous concerts open also to the public. The University organ, installed in 1930 as a gift of an unnamed donor, makes possible the offering of a regular series of programs. In 1940-41 these comprised sixty weekday noon recitals, and seventeen Sunday concerts, besides special concerts and music incidental to other gatherings. In addition to the organ, there are special concerts which in 1941-42 will include recitals by Marian Anderson, Ezio Pinza, the Don Cossack Chorus, Joseph Szigeti and Josef Lhevinne; symphonic concerts by the W.P.A. Southern California Music Project Orchestra, the Los Angeles Philharmonic Orchestra and the Merenblum Junior Orchestra, as well as several dance recitals to be presented by outstanding artists. Programs of an unusual type of music are offered once a month by the Collegium Musicum, University music society. Student musical programs include the University Glee Clubs and the University Bands from the Los Angeles and Berkeley campuses, the University Symphony Orchestra, the A Cappella Choir, and weekly student recitals and hours of recorded music arranged by student music fraternities.

In the past year a group of illustrated lectures was presented under the auspices of the University Extension Division. A series of public Monday night lectures by members of the University faculty was also given.

The Department of Art schedules a series of exhibitions of painting, design, and craftwork in its exhibition hall. These illustrate the work of students, local artists, national exhibitors, and occasionally of old masters. A series of dance recitals is regularly presented under the auspices of the Department of Physical Education for Women and the University Dramatic Society.

Each year the several departments of the University interested in drama present a play. The present series of plays deals with the History of Comedy.

THE ASSOCIATED STUDENTS

The extracurricular activities are administered and controlled by the Associated Students, in which all undergraduates hold membership by virtue of paying at registration the regular University incidental fee. The organization has an executive council composed of a president, two vice-presidents, two representatives of groups, and the chairmen of five activity boards. The activity boards control the activities in definite fields, such as debating, athletics, dramatics, and publications; the council coördinates the work of these boards and administers the general business of the Association. Offices of the Associated Students are in Kerekhoff Hall, a gift to the University of Mrs. William G. Kerekhoff of Los Angeles.

Members are entitled to participation in the affairs of the Associated Students, to a subscription to the *California Daily Bruin*, to free admission to many athletic contests, and to reduced rates to all other athletic contests, as well as to dramatic, social, and similar events coming under the jurisdiction of the Associated Students.

The Students' Coöperative Book Store is owned and operated by the Associated Students.

The *California Daily Bruin* and the *Southern Campus* are the official publications of the students. The *California Daily Bruin* contains news of all campus and college activities, official University announcements, and is under direct charge of an editor and a manager appointed by the Council. The *Southern Campus* is the yearbook and contains a record of the college life of the year. It is edited, managed, and financed by the students.

RELIGIOUS FACILITIES

In the immediate vicinity of the campus, at 10845 LeConte Avenue, is the University Religious Center where official representatives of the Jewish, Catholic, Episcopal, Methodist, Presbyterian, Baptist, Congregational, Disciple, Lutheran, Unitarian, and Latter Day Saints denominations, and the Y.M.C.A. have student headquarters. The Y.W.C.A. occupies its own building, at 574 Hilgard Avenue, near the entrance to the campus; in it are also the headquarters of the Christian Science organization.

At these centers are held religious discussion groups, lectures, Bible classes, social gatherings, luncheons, dinners, and other student meetings.

COLLEGE OF LETTERS AND SCIENCE

THE CURRICULA of the College of Letters and Science are designed to provide opportunities and facilities for broadening the basis of culture, preparing a student for specialized professional studies, and developing intelligence.

Breadth of culture can be attained only through familiarity with the best that has been thought and known in the arts and sciences. To this end the student is required to select courses in the general fundamentals of human knowledge, which are available in the lower division. In the more diverse and abundant offering of the upper division the student is relatively free to continue his liberal education along lines which appear best suited to his aptitudes, needs, and purposes.

Specialization in some field of study is generally regarded as indispensable to a well-rounded education. The pursuit of a special course of study, that is, of a "major," in the upper division necessarily requires a knowledge of antecedent courses known as "prerequisites." With the assistance of his counselor the student is expected to select those lower division courses which are definitely related to his proposed advanced study. Through such guidance and selection, continuity in a chosen field of learning is assured.

The College is vitally interested in the University's broad purposes of developing qualities of leadership, initiative, responsibility, and self-discipline. For this reason, considerable freedom of choice is permitted through a system of electives, that is, of courses not directly related either to the student's major subject or to the basic requirements of the curriculum of the College. A liberal education presupposes a reasonably wide distribution of courses which contribute to a desirable balance of intellectual interest and activity.

With a view to realizing the cultural objectives outlined above, each student in his freshman and sophomore years is required to consult an educational counselor, and during his junior and senior years is required to confer with an official adviser in his major department.

Lower Division

Requirements for the Associate in Arts Degree

The work of the lower division comprises the studies of the freshman and sophomore years. The Associate in Arts degree or its equivalent in the College of Letters and Science is required for admission to the upper division.

A student who transfers from another college of this University or from another institution must meet the lower division requirements; but, if credit of 60 or more units is allowed him, he is given upper division standing and may meet subject shortages concurrently with upper division requirements.

Certain courses taken in the high school are accepted as fulfilling in part or in whole some of the lower division requirements. The student should so arrange his high school program as to reduce the required work in the fields of foreign language, mathematics, and natural science. However, the fulfillment of lower

division requirements in the high school does not reduce the number of units required in the University for the degrees of Associate in Arts (60) and Bachelor of Arts (120).

The requirement of 120 units for the A.B. degree is based on the assumption that the student will normally take 15 units of work each semester, including the prescribed work in military science and physical education. The degree of Associate in Arts will be granted on the completion of 60 units of college work with an average grade of C or higher (of these at least 24 must be earned in residence in the College), and the fulfillment of the following general and specific requirements:

(a) *General University requirements.*[†]

Subject A.[‡]

Military Science and Tactics, or Naval Science and Tactics, 6 units (men).

Physical Education, 2 units.

(b) *Foreign Language.*—(1) At least 15 units in not more than two languages, with not less than six units in any one language. Each year of high school work with grade of at least B in foreign language not duplicated by college work[§] will be counted in satisfaction of three units of this requirement, without, however, reducing the total number of units required for the Associate in Arts degree (60) or for the A.B. degree (120). If a new language is begun in the University it may not apply on this requirement unless course 2 with its prerequisites is completed. Courses given in English by a foreign language department will not be accepted in fulfillment of this requirement.

(2) This requirement may also be satisfied by passing a proficiency examination in one language.

(c) *Matriculation Mathematics.* Elementary algebra and plane geometry. If these subjects were not completed in the high school, they may be taken in the University of California Extension Division or Summer Sessions, but will not be counted as a part of the 60 units.

(d) *Natural Science.* At least 12 units chosen from the following list, of which not less than one unit shall be in laboratory work. Courses marked with an asterisk meet the laboratory requirement. Three units of mathematics not offered in satisfaction of requirement (e) may be substituted for three units of this requirement. Three units of the requirement may be satisfied by any

[†] For information concerning exemption from these requirements apply to the Registrar.

[‡] An examination in Subject A (English Composition) is required of all entrants at the time of their first registration in the University. For further regulations concerning Subject A, see page 38.

[§] Any student who because of lapse of time or other circumstance feels unable to continue successfully a language begun in high school may consult the department of the language concerned regarding the possibility of repeating all or a part of the work for credit. Such credit would count on the 60 units required for the Associate in Arts degree and on the 120 units required for the A.B. degree; but credit is not allowed toward the required 15 units in foreign language for both the high school and college work thus duplicated.

third- or fourth-year laboratory science taken in high school with grade of at least B.

High school science (third- or fourth-year laboratory course).*

Astronomy 1, 2*, 7A, 7B.

Bacteriology 1*, 6.

Biology 1, 12.

Botany 1A*, 1B*.

Chemistry 1A*, 1B*, 2A*, 2B*, 6A*, 6B*, 8.

Entomology 1*.

Geography 3, 3C.

Geology 2, 2L*, 3, 5*.

Paleontology 1.

Physics 1A*, 1B*, 1C*, 1D*, 2A*, 2B*, 4A, 4B.

Physiology 1*, 2*.

Zoology 1A*, 1B*, 18, 35*.

(e) *Three Year-Courses.* A year-course chosen from *three* of the following seven groups. At least one course must be chosen from group 1, 2, or 3. Only the courses specified below are acceptable.

1. English, Public Speaking:

English 1A-1B, 36A-36B.

Public Speaking 1A-1B, 2A-2B.

2. Foreign Language. Courses offered in satisfaction of this requirement may not include any of the work offered as part of the 15-unit requirement in language under requirement (b) above. No high school work may be counted on this requirement.

French, any two consecutive courses from the following: 1A, 1B, 1, 2, 3A, 3B, 3, 25A, 25B.

German, any two consecutive courses from the following: 1A, 1B, 1, 2, 3A, 3B, 3, 7, 25A, 25B.

Greek, 1A-1B, 101, 102.

Italian, any two consecutive courses from the following: 1A, 1B, 1, 2, 3A, 3B.

Latin, any two consecutive courses from the following: A, B, 1, 2, 5A, 5B, 102, 106.

Spanish, any two consecutive courses from the following: 1A, 1B, 1, 2, 3A, 3B, 3, 20, 25A, 25B.

3. Mathematics:

Any two of the following courses: Mathematics C, 2, 6, 7, 8, 3A, 3B, 4A.

4. Social Sciences:

Anthropology 1A-1B.

Economics 1A-1B.

Geography 1A-1B.

History 4A-4B, 5A-5B, 7A-7B, 8A-8B.

Political Science 3A-3B, 31 and 32.

5. Philosophy:

Philosophy 2A-2B, 20 and 21, 22 and 23.

6. Psychology:

Psychology 21 and either 22 or 23.

7. Art, Music:

Art 1A-1B, 2A-2B.

Music 1A-1B, 2A-2B, 35A-35B.

Summer Session Courses. Summer Session courses acceptable in meeting requirements for the Associate in Arts degree are listed each year in the bulletins of the summer sessions.

University Extension. Courses in the University of California Extension Division (either class or correspondence) may be offered in satisfaction of requirements for the Associate in Arts degree provided they bear the same number as acceptable courses in the regular session. Equivalent courses bear the prefix "XL."

Honorable mention with the degree of Associate in Arts. Honorable mention will be granted with the degree of Associate in Arts to students who attain an average of B; that is, at least two grade points for each unit undertaken.

Upper Division

Only those students who have been granted the Associate in Arts degree or who have been admitted to the College with 60 or more units of advanced standing will be registered in the upper division.

The degree of Bachelor of Arts will be granted upon the following conditions:

1. The total number of units in college courses offered for the degree must be at least 120, of which at least 108 must be in courses chosen from the Letters and Science List of Courses (see page 68). Courses numbered in the 300 and 400 series are not included on the List.

No credit is allowed toward the A.B. degree for work taken at a junior college after the student has completed 70 units.

2. The student must attain at least a C average (one grade point for each unit of credit) in all courses taken by him in the University. Courses taken in other institutions are not counted in computing grade-point totals.

3. At least 50 units of college work must be completed after the receipt of the degree of Associate in Arts, or after transfer from a junior college.

4. At least 36 units of upper division work in courses on the Letters and Science List must be completed after the student has attained upper division standing.

5. The requirement in American Institutions must be completed by all candidates for the degree. See page 39.

6. All candidates for the degree must be registered in the College of Letters and Science while completing the final 24 units of work. At least 12 units of the final 24 must be taken in fall or spring sessions. The remaining 12 units may be taken in the University of California summer sessions, either at Berkeley or Los Angeles. This regulation applies to students entering this University from other institutions or from the University of California Extension Division, and to students transferring from other colleges of this University.

7. Students who transfer to the University of California at Los Angeles from other institutions or from the University of California Extension Division with senior standing must complete at least 18 units in upper division courses selected from the Letters and Science List, including at least 12 units in the major department or in the general major. This regulation does not apply to students transferring from other colleges within the University.

8. The student must fulfill the requirements of either (a) or (b):

(a) A departmental major or curriculum of at least 24 units in one of the subjects listed under the heading Organized Majors and Curricula for the Degree of Bachelor of Arts (see page 69).

(b) A general major consisting of not less than 36 upper division units selected from the Letters and Science List of Courses; these units to be chosen from not more than three departments, with not more than 15 units in any one department.

Students desiring to enroll in the general major should consult the office of the Dean of the College, 232 Administration Building.

Each student is required to take at least one course in his major or curriculum during each semester of his final year.

9. No student may change his major or curriculum after the opening of his final semester.

10. Any department offering a major in the College of Letters and Science may require from candidates for the degree a general final examination in the department.

Students who fail in the lower division to attain a C average in any department may be denied the privilege of a major in that department. If in the opinion of the major department any student cannot profitably continue in the major, the Dean may permit a change in the major or may, if circumstances warrant, require the student to withdraw from the College.

Letters and Science List of Courses

At least 108 units offered for the degree of Bachelor of Arts must be in subjects chosen from the Letters and Science List of Courses, and the 36 units in upper division courses (numbered 100-199) required in the upper division must be selected from the same list.

Any course not included in the Letters and Science List of Courses but required or accepted by a department as part of its major or as a prerequisite therefor, will, for students offering a major in that department at graduation, but for no others, be treated as if it were on the Letters and Science List of Courses.

The following list refers to the courses as given in the departmental offerings for the year 1941-42:

Agriculture. Agricultural Economics 3, 104; Entomology 1, 134; Soil Science 110; Plant Pathology 120.

Anthropology and Sociology:

Anthropology. All undergraduate courses.

Sociology. All undergraduate courses.

Art. 1A-1B, 2A-2B, 4A-4B, 21, 24A-24B, 32A-32B, 42, 121A-121B, 131A-131B, 134A-134B, 144A-144B, 151A-151B, 161A-161B, 164A-164B, 174A-174B.

Astronomy. All undergraduate courses.

Bacteriology:

Bacteriology. All undergraduate courses.

Public Health. All undergraduate courses.

Botany. All undergraduate courses.

Business Administration. 1A-1B, 131, 132, 140, 145, 153, and 180.

Chemistry. All undergraduate courses except 10.

Classics:

Latin. All undergraduate courses.

Greek. All undergraduate courses.

Economics. All undergraduate courses.

Education. 101A-101B, 102, 106, 110, 111, 112, 114, 119, 170, 180.

English:

English. All undergraduate courses.

Public Speaking. All undergraduate courses.

French. All undergraduate courses.

Geography. All undergraduate courses.

Geology. All undergraduate courses.

Germanic Languages:

German. All undergraduate courses.

Scandinavian Languages. All undergraduate courses.

History. All undergraduate courses.

Home Economics. All undergraduate courses except 108, 125, 150, 175.

Italian. All undergraduate courses.

Mathematics. All undergraduate courses.

Military Science and Tactics. All undergraduate courses.

Music. All undergraduate courses except 7A-7B, 46ABCD, 108A-108B, 115A-115B.

Naval Science and Tactics. All undergraduate courses.

Oceanography. All undergraduate courses.

Philosophy. All undergraduate courses.

Physical Education for Men. 1, 3.

Physical Education for Women. 2, 4, 44, 114A-114B, 120, 133, 135, 136, 140, 180, 193.

Physics:

Physics. All undergraduate courses.

Meteorology. All undergraduate courses.

Political Science. All undergraduate courses.

Psychology: All undergraduate courses.

Spanish:

Spanish. All undergraduate courses except 10.

Portuguese. All undergraduate courses.

Zoölogy. All undergraduate courses.

ORGANIZED MAJORS AND CURRICULA IN THE COLLEGE OF LETTERS AND SCIENCE

A major (or curriculum) consists of a substantial group of coördinated upper division courses. The upper division unit requirement may represent courses in one or more departments. The details of the program must be approved by the officer in charge.

Special attention is directed to the courses listed as preparation for the major. In general, it is essential that these courses be completed before upper division major work is undertaken. In any event they are essential requirements for the completion of the major.

Not more than 30 units of upper division courses taken in one department after receiving the degree of Associate in Arts will be counted toward the bachelor's degree. *Note:* In economics, this limitation is inclusive of courses in business administration.

The major must, in its entirety, consist (1) of courses taken *in resident instruction* at this or another university (fall, spring, and summer session), or (2) of courses taken in the University of California Extension Division with numbers having the prefix XL, XB, or X.

The student must attain an average grade of C (1 grade point for each unit of credit) in all courses offered as part of the major (or curriculum).

Courses numbered in the 300 series (teachers' courses) or in the 400 series (professional courses) are not accepted as part of the major.

See further under Regulations for Study Lists, on page 42.

The College offers majors or curricula leading to the degree of Bachelor of Arts in the following fields:

Curriculum in Applied Physics
 Curriculum in American Culture
 and Institutions (see below)
 Anthropology
 Astronomy
 Bacteriology
 Botany
 Chemistry
 Economics
 English
 French
 Geography
 Geology
 German
 Greek
 History

Curriculum in International
 Relations (see below)
 Latin
 Mathematics
 Curriculum in Medical Technology
 (with major in Bacteriology)
 Music
 Philosophy
 Physics
 Physics-Meteorology
 Political Science
 Curriculum in Public Service (see
 below)
 Psychology
 Sociology
 Spanish
 Zoölogy

The requirements of the several majors are stated with the departmental offerings, beginning on page 115. In addition, requirements of majors and curricula are listed in the ANNOUNCEMENT OF THE COLLEGE OF LETTERS AND SCIENCE.

CURRICULUM IN AMERICAN CULTURE AND INSTITUTIONS

Lower Division

Required: English 1A-1B (6), Geography 1A-1B (6), History 7A-7B (6) or 8A-8B (6) or 4A-4B (6), Political Science 3A-3B (6) or Economics 1A-1B (6). Recommended: Anthropology 1A-1B (6), Astronomy 1 (3), Bacteriology 6 (2), Biology 1 (3), 12 (3), Chemistry 2A-2B (8), Economics 1A-1B (6) (see above), English 36A-36B (6), History 39 (2), 46 (3), Physics 4A-4B (6), Political Science 3A-3B (6) (see above), 10 (3), 34 (3), Sociology 30A-30B (6), Zoölogy 18 (2).

Upper Division

Curriculum requirements: From Group I.....	15 units
From Group II.....	12 units
From Group III.....	15 units
Total.....	42

The 199 courses in all departments shall be accepted as applying to groups I, II, and III below; but the gross count of 199 courses shall not exceed 6 units.

I. *Historical Development*

Required: Geography 121 (3) and twelve units selected from Anthropology 104 (3), 105 (3), Geography 111 (3), 122A-122B (6), 171A-171B (6), His-

tory 152A-152B (6), 153A-153B (6), 156 (3), 162A-162B (6), 171 (3), 172 (3), 173 (3), 174 (3), 181 (3).

II. Cultural and Intellectual Development

Required: English 111 (3), Spanish 184 (3), and six units selected from Art 151A-151B (4), Astronomy 100 (3), Botany 151 (2), Education 102 (3), English 130A-130B (4), 131 (3), 132 (3), 190A-190B (4), Geology 107 (2), History 107 (3), Mathematics 104 (3), Music 142 (2), Philosophy 102 (3), 114 (3), Physical Education 136 (2), Psychology 101 (3), Public Health 101A-101B (6), Public Speaking 165 (3).

III. Political, Economic and Social Development

Fifteen units selected from Economics 107 (2), 131A-131B (4), 132 (3), 150 (3), 155 (2), Education 185 (3), History 112A-112B (6), 164A-164B (4), Political Science 113 (3), 125 (3), 126 (3), 141 (3), 143 (2), 146 (2), 156 (3), 158 (2), 157A-157B (6), 162 (3), 163 (3), 181 (3), Sociology 186 (3), 189 (2).

CURRICULUM IN INTERNATIONAL RELATIONS

This curriculum is designed primarily for students in the College of Letters and Science whose interests, while not specialized, fall in the field of foreign relations and diplomacy. Students interested in preparing for the American Foreign Service examinations should consult the adviser.

Lower Division

Required: Political Science 3A-3B (3-3); History 4A-4B, 5A-5B, 7A-7B, or 8A-8B (3-3); and Economics 1A-1B (3-3). Recommended: Political Science 31 (3), 32 (3); Geography 1A-1B (3-3).

Upper Division

The curriculum comprises 36 upper division units, distributed as follows:

I. General requirements (21 units): Political Science 125 (3), 127 (3), 133A-133B (3-3); History 144-145, 148A-148B, or 153A-153B (3-3); and Geography 181 (3).

II. Field requirements: at least nine units in one of the four following fields of specialization—

(a) *Far Eastern Affairs*: Political Science 136 (3), 138 (3); History 191A-191B (3-3); Geography 124 (3).

(b) *Latin American Affairs*: Political Science 126 (3), 151 (3); History 162A-162B (3-3); Geography 122A-122B (3-3).

(c) *European Affairs*: Political Science 154 (3), 155 (3); History 148A-148B (3-3) (if not offered under I, above), 146A-146B (3-3), 142 (3), 143 (3); Geography 123A-123B (2-2).

(d) *British Empire Affairs*: Political Science 153 (2); History 153A-153B (3-3) (if not offered under I, above), 152A-152B (2-2), 158A-158B (3-3); Geography 121 (3).

III. Electives: six additional units chosen from the courses listed above or from Political Science 110 (3), 112 (3); History 131A-131B (3-3); Economics 195 (3).

Candidates for the degree in this curriculum will be required to give evidence

of their ability to read the current literature in the field in one modern language: French, German, Spanish, or Italian. With permission, candidates may offer Oriental or Slavic languages.

CURRICULUM IN PUBLIC SERVICE

The Curriculum in Public Service is designed to be of assistance to students who wish to qualify themselves for positions in government work. It should be noted that a large percentage of government positions are open only through competitive examinations. The curriculum, therefore, is designed to allow the student to coördinate a program drawn from several departments in preparation for a general class of positions. While the curriculum is primarily related to Political Science, it is designed to allow a broader training in administrative work than is permitted a departmental major.

Lower Division

Required: Business Administration 1A-1B (3-3), Economics 1A-1B (3-3), Political Science 3A-3B (3-3). In certain fields, other courses are prerequisite to upper division courses included in the curriculum:

Public Welfare—Sociology 30A-30B.

Public Personnel—Psychology 21, 23.

Public Relations—Six units of lower division history.

Recommended: Economics 40 (3), English 1A-1B (3-3), Public Speaking 1A-1B (3-3), Mathematics 8 (3), Statistics 1 (3), Political Science 34 (3).

Upper Division

Required: Thirty-six units of upper division work, including: Business Administration 140 (unless Economics 40 has been taken), Political Science 141, 156, 163, 181. The program shall be selected from one of the fields:

Public Management

Public Personnel Administration

Public Welfare Administration

Public Relations

Financial Administration

Variations in the programs may be made with the approval of the adviser. For information regarding specific courses in each field, consult the advisers, or refer to the ANNOUNCEMENT OF THE COLLEGE OF LETTERS AND SCIENCE, Los Angeles.

THE GENERAL MAJOR

To meet the needs of students who do not desire to specialize, the College provides a liberalized curriculum to be known as a "general major," consisting of 36 units in upper division courses (together with their prerequisites) chosen from the Letters and Science List. These 36 units are to be chosen from not more than three departments, with not more than 15 units in any one department. An average grade of C is required in each departmental group of courses comprising the general major.

Because of its flexibility, this plan makes a special appeal to many students

who have professional objectives not identified with any particular major, such as elementary teaching, law, journalism, and librarianship, as well as to those who desire only a broad general culture.

HONORS

Honorable Mention with the degree of Associate in Arts.

1. Honorable mention is granted with the degree of Associate in Arts to students who attain at least an average of two grade points for each unit undertaken.
2. The list of students who receive honorable mention with the degree of Associate in Arts is sent to the chairmen of departments.
3. A student who gains honorable mention has thereby attained the honors status for his first semester in the upper division.

Honors Students in the Upper Division.

1. An honors list is prepared in the fall semester, and also in the spring semester if the Committee on Honors so decides. This list is published in the CATALOGUE OF OFFICERS AND STUDENTS. The department of the student's major is named in the list.
2. The honors list includes the names of:
 - (1) Students who have received honorable mention with the degree of Associate in Arts and who are in their first semester of the upper division.
 - (2) Upper division students who have an average of at least two grade points for each unit undertaken in all undergraduate work at the University of California at Los Angeles.
 - (3) Other upper division students specially approved for listing in the honors status by the Committee on Honors, either upon recommendation made to the Committee by departments of instruction, or upon such other basis as the Committee may determine.

Honors with the Bachelor's Degree.

1. Honors are granted at graduation only to students who have completed the major with distinction, and who have a general record satisfactory to the Committee on Honors.
2. Before Commencement each department determines, by such means as it deems best (for example, by means of a general final examination), which students it will recommend for honors at graduation, and reports its recommendations to the Registrar.
3. Students who, in the judgment of their departments, display marked superiority in their major subject, may be recommended for the special distinction of highest honors.
4. The Committee on Honors will consider departmental recommendations and will confer with the several departments about doubtful cases. The Committee is empowered at its discretion to recommend to the Committee

on Graduation Matters that honors be not granted to any student who has failed to attain a B average in the major, or in the upper division, or in all undergraduate work.

5. The list of students to whom honors or highest honors in the various departments have been awarded is published in the COMMENCEMENT PROGRAMME.

PREPARATION FOR VARIOUS PROFESSIONAL CURRICULA

Certain courses given at the University of California at Los Angeles may be used as preparatory to admission to the professional colleges and schools of the University in Berkeley and in San Francisco.

CURRICULUM OF THE COLLEGE OF CHEMISTRY

In addition to the major in chemistry in the College of Letters and Science, the first two years of the curriculum of the College of Chemistry, leading to the B.S. degree, are offered at Los Angeles. To complete this curriculum, the student must transfer to the Berkeley departments of the University of California at the end of his second year. Before entering upon this program, he should consult the adviser for students in chemistry; ordinarily the student in chemistry finds more freedom in his program by enrolling in the College of Letters and Science.

Preparation. Students who propose ultimately to enter the College of Chemistry must include in their high school programs physics (1 unit), chemistry (1 unit), mathematics, including trigonometry and two years of algebra (3½ units), German or French (2 units), and geometrical drawing (1 unit). Students without this preparation will ordinarily not be allowed to enroll in the College of Chemistry.

A satisfactory reading knowledge of scientific German before the junior year is essential. A reading knowledge of French will also be of advantage.

PREDENTAL CURRICULA

The College of Dentistry offers three curricula: the first and second lead to the degrees of Bachelor of Science and Doctor of Dental Surgery, with a major in restorative dentistry or preventive dentistry, and the third (limited to women students) provides training in dental hygiene and leads to the Bachelor of Science degree.

The academic (undergraduate) and professional curriculum leading to the degrees of B.S., D.D.S., covers six years. The degree of Bachelor of Science is awarded at the end of five years—two years in the College of Letters and Science at Berkeley or Los Angeles, followed by three years of the four-year professional curriculum in the College of Dentistry at San Francisco—and the degree of Doctor of Dental Surgery is awarded after one additional year (the fourth year of the professional curriculum) in San Francisco.

For the training of dental hygienists a two-year professional curriculum is offered. Every applicant for admission to this two-year professional curricu-

lum in dental hygiene is required to present credentials covering two years of academic instruction comparable in all respects to the first two years of instruction in the six-year dental curricula. On completion of the curriculum for dental hygienists, the degree of Bachelor of Science will be awarded. The ANNOUNCEMENT OF THE COLLEGE OF DENTISTRY contains detailed information about the curriculum in dental hygiene.

The student seeking admission to one of the six-year curricula is advised to take the following subjects in high school: English, 3 units; history, 1 unit; mathematics, 3 units (algebra, plane geometry, and trigonometry); chemistry, 1 unit; physics, 1 unit; foreign language, 3, or preferably, 4 units.

Applicants for admission to the College of Dentistry must have completed at least 60 units of college study, including the requirements (2) to (5) inclusive listed below.

The student in the University of California preparing himself for admission to the College of Dentistry should complete the requirements for the degree of Associate in Arts in the College of Letters and Science (see pages 63-66).

Requirements for First and Second Years

(1) General University requirements*

Subject A (see page 38)

Military Science and Tactics (men) 6 units

Students in the Naval Unit will substitute for 6 units of military science, 10 units of naval science. (Not required of students who enter with two years of advanced standing.)

Physical Education 2 units

(Required at the University of California at Los Angeles.)

(2) Foreign language†

Not more than two languages 15 units

(3) A full year of study in each of three of the following groups

[at least one chosen from groups (a), (b), or (c)]:‡

(a) English or public speaking;

(b) Foreign language, additional to (2) above;

(c) Advanced mathematics;

(d) Social sciences (anthropology, economics, geography, history, political science);

(e) Philosophy;

(f) Psychology;

(g) Art or music 18 units

(4) Chemistry (the numbers in parentheses refer to courses at the

University of California which fulfill requirements): inorganic (1A-1B), 10 units, and organic (8), 3 units 13 units

(5) Additional science: At least 5 units in one of the following:

physics (2A-2B)§, zoölogy with laboratory (1A-1B), physiology (1 and 2) 5-8 units

* The requirement of American Institutions is also prerequisite to the bachelor's degree (see page 39).

† This requirement may be partially satisfied in high school (see page 64).

‡ Note requirement (e) for the Associate in Arts degree and the list of courses accepted in satisfaction of this requirement (see page 65).

§ Trigonometry is prerequisite to this course.

Students entering the College of Dentistry must have a scholarship average of at least grade C in all work of college level.

In planning his program, the student is advised to complete as many of the required subjects as possible in the first year, including inorganic chemistry. The remaining required science should be taken in the second year. It is also recommended that he choose as an elective subject a course in either a physical or a biological science. This should not be in the same field as the science offered under requirement (5) above.

Information concerning the third, fourth, fifth, and sixth years in the curricula leading to the degree of Bachelor of Science and Doctor of Dental Surgery in this college, will be found in the **ANNOUNCEMENT OF THE COLLEGE OF DENTISTRY**. Address the Dean of the College of Dentistry, University of California Medical Center, San Francisco, California.

PRELEGAL CURRICULA

Professional instruction in law in the University of California is given in the School of Jurisprudence in Berkeley and in the Hastings College of the Law in San Francisco.

Admission to the School of Jurisprudence in candidacy for the degree of Bachelor of Laws in the three-year curriculum is limited to students holding an approved bachelor's degree in arts or science with a minimum scholarship average of 2.0 (B average); the degree may be obtained in the College of Letters and Science of the University of California at Los Angeles. The School of Jurisprudence also offers a graduate curriculum of one year leading to the degree of Doctor of Science of Law (J.S.D.), open only to applicants who hold both an academic bachelor's degree and an approved professional degree in law.

The Hastings College of the Law offers a curriculum of three years leading to the degree of Bachelor of Laws; admission to this college is limited to holders of the degree of Associate in Arts or its equivalent. The College of Letters and Science of the University of California at Los Angeles grants this degree of Associate in Arts upon completion of the requirements stated on page 63.

PREMEDICAL CURRICULUM: THREE YEARS

It is assumed that as preparation for this curriculum the student will have completed in the high school the following subjects: English, 3 units; history, 1 unit; mathematics, 2 units (elementary algebra and plane geometry); chemistry, 1 unit; physics, 1 unit; foreign language (preferably French or German), 2 units. The requirements for the degree of Associate in Arts may be met more easily if the foreign language has been pursued four years in the high school. It is desirable that a course in freehand drawing be taken in high school. If possible, the student should also complete in high school intermediate algebra, $\frac{1}{2}$ unit, and trigonometry, $\frac{1}{2}$ unit, although these courses may be taken in the University. Trigonometry is prerequisite to the premedical courses in physics.

It is important for students to bear in mind that the class entering the Medical School is limited; in the past there have been a great many more applicants than could be admitted. Premedical students who, upon the conclusion of their third (junior) year, find themselves thus excluded from the Medical School, will be unable to obtain the bachelor's degree in the College of Letters and Science at the end of the fourth year, unless they plan their program with this contingency in mind. They should, therefore, either enter a departmental major at the beginning of the junior year, at the same time meeting all premedical requirements, or include in their premedical program a sufficient number of appropriate courses in some major department. Provision for the completion of such a major does not prejudice the student's eligibility for admission to the Medical School.

For matriculation in the Medical School—the five-year professional curriculum leading to the degree of Doctor of Medicine—the student must have attained senior standing in the premedical curriculum in the College of Letters and Science (see page 78).

All applicants for admission to the Medical School are required to take the Medical Aptitude Test of the Association of American Medical Colleges. This examination is given annually at various colleges and universities, including the University of California. The date upon which the examination is to be held in Los Angeles will be announced later.

Applications for admission to the Medical School for any academic year must be filed with the Registrar, University of California, Berkeley, not later than January 15, prior to the opening of the fall session, and must be accompanied by a draft or money order for \$3 in payment for the application fee. A deposit of \$50 will be required at the time of acceptance of an applicant to the Medical School. This deposit may be refunded if the student fails to meet the requirements but it is not refundable if he accepts appointment to another medical school.

The number of students who may be admitted to each first-year class from institutions outside the state of California is limited to five, and of these five not more than one will be selected from institutions of any one state.

Owing to the limitation of enrollment in the classes of the Medical School, candidates are selected on the basis of scholarship rank, Medical Aptitude Test score, and personal rating based on interviews with a committee appointed by the President of the University.

The Committee on Admissions to the Medical School is authorized to refuse admission to students who have low academic records and to those of obvious physical, mental, or moral disability. Successful candidates must pass a physical examination before registering in the Medical School. It is advisable for premedical students at the end of their freshman year to consult the University Physician to determine whether they have any physical disabilities which would impair their chances for success in the medical profession.

An applicant for admission to the Medical School who in any year is rejected

because of inferior scholarship may at once present a second application for admission. With this application he should submit a detailed statement of the studies and other employments, if any, with which he intends to further prepare for the work of the Medical School. If his plan receives the approval of the Committee on Admissions, he is listed with other applicants for admission at the beginning of the next academic year and the success of his candidacy will depend upon his scholarship rank as a member of that group.

An accepted applicant who is unable to begin his work in the Medical School in August, or who actually enters but finds it necessary to withdraw in his first year, loses his place and, if he desires to begin work in a later year, is required to reapply with the group of applicants for that year. Successful candidates must pass a satisfactory medical examination before registering in the School. Students in attendance in San Francisco are examined annually.

The State law governing the practice of medicine in California prescribes that every person, before practicing medicine or surgery, must produce satisfactory testimonials of good moral character and a diploma issued by some legally chartered medical school, whose requirements meet in every respect the Medical Practice Act of California as attested by the last annual approval of the California State Board of Medical Examiners. The requirements for matriculation in the University of California Medical School cover those set by the Association of American Medical Colleges, provided the high school program includes physics and chemistry.

For further information see the annual ANNOUNCEMENT OF THE MEDICAL SCHOOL, to be obtained from the Dean's office, University of California Medical School, Medical Center, Third and Parnassus avenues, San Francisco.

The following tabulated curriculum represents a satisfactory arrangement of work to meet the entrance requirements for the Medical School:

Premedical Program

A. For students who have completed *two years* of foreign language in high school.

	<i>First Year</i>	
	Units first semester	Units second semester
Subject A (examination or course in Subject A) .....	..	..
Military or Naval Science (for men)	1½	1½
Physical Education	½	½
Chemistry 1A-1B	5	5
*English 1A-1B or Public Speaking 1A-1B	3	3
†Foreign language	5	3 or 5
Electives as necessary to make up units .....	..	..
	<hr/> 16	<hr/> 16

* If the student fails to pass the examination in Subject A it will be necessary to postpone English 1A-1B or Public Speaking 1A-1B until he has completed the course in Subject A, for which no units are allowed.

† The Medical School requirement is 10 units of credit in either French or German, and the Associate in Arts requirement is 15 units of foreign language in not more than two languages. These may be satisfied partly in the high school. The student's program should be made to satisfy these requirements.

Second Year

	Units first semester	Units second semester
Military or Naval Science (for men)	1½	1½
Physical Education	½	½
Zoölogy 1A-1B	5	5
Year course (Requirement "e" for the Associate in Arts degree)	3	3
Year course (Requirement "e" for the Associate in Arts degree)	3	3
Chemistry 8	3	..
Chemistry 6A .....	..	3
	<hr/> 16	<hr/> 16

Third Year

American Institutions 101	2	..
Physics 2A-2B	4	4
Zoölogy 4	2	..
Electives	8	12
	<hr/> 16	<hr/> 16

B. For students who have completed *four years* of foreign language in high school.

First Year

Subject A (examination or course in Subject A) .....	..	..
Military or Naval Science (for men)	1½	1½
Physical Education	½	½
Chemistry 1A-1B	5	5
*English 1A-1B or Public Speaking 1A-1B	3	3
Year course (Requirement "e" for the Associate in Arts degree)	3	3
Year course (Requirement "e" for the Associate in Arts degree)	3	3
	<hr/> 16	<hr/> 16

Second Year

Military or Naval Science (for men)	1½	1½
Physical Education	½	½
Zoölogy 1A-1B	5	5
Chemistry 8	3	..
Chemistry 6A .....	..	3
Electives (Foreign language if necessary to complete 15 units for Associate in Arts degree)	6	6
	<hr/> 16	<hr/> 16

Third Year

American Institutions 101	2	..
Physics 2A-2B	4	4
Zoölogy 4	2	..
Electives	8	12
	<hr/> 16	<hr/> 16

*If the student fails to pass the examination in Subject A it will be necessary to postpone English 1A-1B or Public Speaking 1A-1B until he has completed the course in Subject A, for which no units are allowed.

SOCIAL WELFARE

Graduate training is now required in almost all fields of social welfare work. Only the undergraduate preparation for this training is offered on the Los Angeles campus. The Department of Social Welfare at Berkeley offers a curriculum subsequent to the bachelor's degree, leading at the end of the first year to the Certificate in Social Welfare, and at the end of the second year to the degree of Master of Arts.

Admission to the first year's graduate work at Berkeley is limited to students who (a) hold the bachelor's degree and are eligible for admission in full graduate standing at the University of California; (b) are not more than 35 years of age*; (c) are in good health, as indicated by a certificate from the University of California Health Service; (d) have completed the following courses or their equivalents, or have shown by qualifying examinations that they have an adequate knowledge of the subject matter of such courses:

1. Economics 1A-1B (Elements of Economics);
2. Psychology 21 (General Psychology);
3. Economics 150 (Labor Economics) or some other courses in social economics, such as Sociology 181 (Care of Dependents);
4. Two units of work in clinical or abnormal psychology;
5. Economics 40 (Economic and Social Statistics) or Psychology 107A (Mental Measurements) or Statistics 1 (Elementary Statistics) or Education 114 (Educational Statistics).

Candidates must also satisfy the Admissions Committee of the Department of Social Welfare that they are in other respects suitably prepared for admission.

Not all applicants who qualify under the foregoing provisions will necessarily be admitted to the certificate program, since total enrollment is limited to the number for whom suitable field work training can be arranged. For some time admissions to the curriculum have been considerably smaller than the number of applicants. However, there has been a steady increase in the number of full-time students. Preference is given to those qualified applicants who appear to be most suitable for the profession of social work.

The major for the A.B. degree is not specified, but one of the following is recommended: Curriculum in Public Service taken in Public Welfare Administration; the General Major taken in three of the following fields: economics, political science, psychology, sociology†; or the Major in Economics, Political Science, Psychology, or Sociology. Either the Curriculum in Public Service or the General Major is ordinarily to be preferred, the choice depending upon the student's particular objective within the field. Students planning to enter

* This requirement may be waived for those persons who through experience in the field have demonstrated their capacity for social work.

† In certain cases, the inclusion of home economics in the General Major is recommended.

graduate work in social welfare should confer at the beginning of their undergraduate studies with the counselor in social work.

The certificate program in social welfare may be combined with a program leading to the General Secondary Teaching Credential. This will ordinarily require three or four semesters of graduate work. Students planning to take this combined program should, as early as possible in the undergraduate period, obtain the advice of the Educational Adviser in the School of Education as well as of the counselor in social work.

For information as to admissions procedure and details of the graduate curricula at Berkeley, consult the ANNOUNCEMENT OF THE DEPARTMENT OF SOCIAL WELFARE which may be obtained from the Department of Social Welfare, 2400 Allston Way, University of California, Berkeley, California. Students who plan to take their professional work at other institutions should secure the appropriate announcements from those institutions and plan their undergraduate program in accord with the admissions requirements of the school or college concerned.

JOURNALISM

The University of California at Los Angeles does not have a curriculum in journalism; a student who desires to prepare himself in this field should enroll in the College of Letters and Science and with the assistance of his adviser, arrange a program containing fundamental courses in English, economics, history, political science, modern languages, and science.

RELIGION

Students having a cultural or professional interest in religion and religious education will find in the offerings of various departments many courses germane to these fields of study. In completing the requirements for a degree, including the requirements for a departmental or general major, a student can by judicious selection acquire basic preparation for various forms of religious leadership.

OTHER PROFESSIONAL CURRICULA IN THE UNIVERSITY

Architecture. In order to be admitted to the School of Architecture in Berkeley, the student must have at least junior standing and should normally have completed the requirements for the degree of Associate in Arts of the College of Letters and Science at Berkeley or Los Angeles, including such prerequisites to upper division courses in architecture as may be prescribed by the faculty of the School of Architecture. Only the academic courses in this program may be taken in the College of Letters and Science at Los Angeles; consequently, the student desiring a major in architecture is advised to enroll at Berkeley in order to complete the curriculum in four years.

Librarianship. The School of Librarianship in Berkeley offers a curriculum of two years subsequent to the bachelor's degree, leading at the end of the first

year to the Certificate in Librarianship, and at the end of the second year to the degree of Master of Arts. The A.B. degree of the University of California (Los Angeles or Berkeley) or its equivalent, full graduate standing in the University, and one year each of college French and German are required for admission.

Public Health. The University offers a professional curriculum in public health, based on matriculation in the Medical School, leading to the degree of Doctor of Medicine at the end of five years, and to the degree of Doctor of Public Health in two additional years. Students of medicine in the University of California may present one year of the specific public health program in fulfillment of the fifth year in the Medical School, thereby reducing by one year the time required for the degree of Doctor of Public Health.

COLLEGE OF BUSINESS ADMINISTRATION

COURSES WHICH CONSTITUTE the curricula of the College of Business Administration are designed to give students who choose to work toward the Bachelor of Science degree a well-balanced introduction to professional careers in business. Certain fundamental courses are included in the requirements for the degree of Associate in Arts which should give the student the proper background for more technical offerings when the upper division is reached. At the beginning of the junior year the student selects a major field in which advanced work will be completed in the more specialized professional fields of accounting, banking and finance, marketing, or management and industry. While the greatest value of such specialization is largely dependent upon a wise choice in one of those basic fields, students who desire to obtain a more general business training may work toward that end by taking the general business major. With the approval of the Dean the major may be changed not later than the beginning of the senior year. Details covering all phases of the work offered in the College are set forth on the following pages, under Lower Division and Upper Division Requirements.

Every student, upon his matriculation in the University, is assigned to an adviser who will gladly assist him in the selection and arrangement of his course of study, and to whom he may go when problems of a social or a scholastic nature arise. While the student may occasionally be summoned to confer with his adviser, it is his privilege at all times to seek an interview during the hours designated on the adviser's door card.

Special Secondary Teaching Credential in Business Education. Candidates for the bachelor's degree in the College of Business Administration may secure the Special Secondary Teaching Credential in Business Education by completing certain additional requirements, as set forth in the ANNOUNCEMENT OF THE SCHOOL OF EDUCATION, LOS ANGELES.

Summer Session courses. Students who wish to satisfy the specific subject requirements in the summer sessions, may use only those courses which are the equivalent of courses offered in the fall or spring sessions listed as acceptable in meeting requirements and which are designated by the same numbers with the prefix "S."

University Extension. Students who desire to satisfy the specific subject requirements in the University of California Extension Division may use only those courses which are the equivalents of courses offered in the fall or spring sessions listed as acceptable in meeting the requirements.

Approved courses for electives in the College. All undergraduate courses in the Letters and Science List (see page 68), will be accepted for credit toward the B.S. degree. A maximum of 6 units of electives aside from the preceding will be accepted for credit toward the degree.

Program limitation. A student who is not restricted in his study list and who is not on probation may present a study list aggregating 12 to 18 units a

semester without special permission with respect to quantity of work, save that in his first semester of residence the maximum must not exceed 16 units. A student who is not under the supervision of the Committee on Reinstatement but has a deficiency in the work of the previous semester is limited to 16 units. All courses in military or naval science and physical education and repeated courses are to be counted in the totals.

Lower Division

Requirements for the Degree of Associate in Arts

The degree of Associate in Arts of the College of Business Administration or its equivalent is required for admission to the upper division of the College. It is granted to students who have completed 64 units of college work (of which at least 24 were completed in residence in the College), with a grade-point average in all work done in the University of not lower than 1.00 (a C average), and who have satisfied requirements (a) to (e) below. While some of these requirements may be satisfied by work in the high school, work done prior to graduation from high school will not be counted as part of the 64 units.

(a) *General University requirements:*

Subject A.

Military Science and Tactics (or Naval Science and Tactics), 6 units (men).

Physical Education, 2 units.

(b) *Either:*

Foreign Language. At least 16 units in one foreign language. Each year of high school work in this language, not duplicated by college courses taken by the student, will count as 3 units in satisfaction of this requirement, but will not reduce the total number of units for the Associate in Arts degree or the B.S. degree.

Or:

Natural Science. At least 14 units chosen from the following list, including not less than 4 units of college courses with laboratory work. [Courses marked with an asterisk (*) meet the laboratory requirement.] One year of chemistry or physics completed in the high school will each count as 3 units in satisfaction of the natural science requirement, but will not reduce the total number of units for the degree of Associate in Arts or the B.S. degree.

High school chemistry.

High school physics.

Chemistry 2A-2B, 8 units.*

Physics 2A-2B, 8 units.*

Zoölogy 1A, 5 units.*

Botany 1A, 4 units.*

Astronomy 1, 3 units.

Biology 1, 3 units.

Geology 2, 3 units.

(c) *Social Science*. At least 6 units in social science chosen from the following list:

Political Science 3A-3B, 6 units.

History 4A-4B, 6 units; 7A-7B, 6 units; 8A-8B, 6 units; 46, 3 units.

Psychology 21, 3 units; 22 or 23, 3 units.

(d) *Required courses*:

Business Administration 1A-1B, 6 units.

Economics 1A-1B, 6 units.

English 1A, 3 units.

Geography 5A-5B, 6 units.

Mathematics 8, 3 units.

Mathematics 2, 3 units.

Public Speaking 1A, 3 units.

(e) *Matriculation Mathematics*. Elementary algebra and plane geometry. If these subjects were not completed in the high school, they may be taken in the University of California Extension Division or Summer Sessions, but will not be counted as a part of the 64 units.

Upper Division

The Associate in Arts degree is required as a prerequisite to registration in the upper division, except for students who have been granted 64 or more units of advanced standing; such students may complete the remaining lower division requirements while registered in the upper division. Except for such students there must be completed at least 50 units of credit after qualifying for the Associate in Arts degree. All students must complete a minimum of 36 upper division units chosen from the list of approved courses for electives.

(a) *University requirement*: American Institutions 101, or its equivalent, is required of all candidates for the degree of Bachelor of Science (see page 39).

(b) *General requirements*:

Junior required courses: Business Administration 18A-18B, 120, 140, 160A, 180.

Economics 135.

Senior required course: Business Administration 100.

(c) *Special Elective*. Three units chosen from the following:

Business Administration 110, 116, 117, 132,* 145.

Economics 131A-131B, 132, 150, 154, 171, 173.

(d) *At least nine upper division units in one of the five following majors*:

(1) *Accounting*: Business Administration 160B, 161, 162, 163, 165.

(2) *Banking and Finance*: Business Administration 131, 132, 133, 139.

(3) *Marketing*: Business Administration 184, 185, 186; Economics 195.

(4) *Management and Industry*: Business Administration 121A-121B, 125, 144, 153.

* Finance majors may not take this course to meet the Special Elective requirement.

(5) *General Business*: Business Administration 125, 131, 160B, 184.

The major must be started not later than the beginning of the second semester prior to the date of graduation.

(e) All candidates for the B.S. degree are required to take at least 12 units of electives outside the Department of Business Administration, chosen from the Letters and Science List of Courses (see page 68). These electives may consist of either lower or upper division courses.

(f) *Scholarship requirements*: A candidate for graduation is required to meet the following minimum scholarship requirements:

- (1) At least a C average in all work undertaken in the University.
- (2) At least a C average in all upper division courses taken in the Department of Business Administration.
- (3) At least a C average in all subjects undertaken in the major.

Summary—Units and Grade-Point Requirements Bachelor of Science Degree

Lower division requirements.....64 units with 64 grade points

Upper division requirements:

General requirements..... 27 units

Major requirement..... 9 units

University requirement..... 2 units

Electives 18 units

—

Total..... 56 units

Total minimum requirements for B.S.

degree.....120 units with 120 grade points

HONORS

The Executive Committee of the College will recommend for Honors or Highest Honors such students as it may judge worthy of that distinction.

COLLEGE OF AGRICULTURE

THE COLLEGE OF AGRICULTURE of the University of California offers at Los Angeles the Plant Science curriculum and the major in Horticulture leading to the Bachelor of Science degree. This major is not available on the other campuses where the College of Agriculture offers instruction. Courses in floriculture and ornamental horticulture will shortly be provided on the Los Angeles campus so as to make possible specialization within the major in any one of three coördinate fields—subtropical fruits, flower crops, and ornamental plants. Graduate work is also offered which leads to the Master of Science and Doctor of Philosophy degrees in Horticultural Science.

Students electing other majors in the Plant Science curriculum—Agronomy, Fruit Products, Genetics, Irrigation, Plant Pathology, Pomology, Truck Crops, and Viticulture—may spend the freshman and sophomore years at Los Angeles and then transfer to the campus, Berkeley or Davis, where their major work is offered. The same is true of students electing other curricula in the College of Agriculture—Animal Science, Agricultural Economics, Agricultural Education, Entomology, Forestry, and Soil Science—and the curriculum in Agricultural Engineering. Students who plan to major in Landscape Design are advised to transfer to Berkeley at the beginning of the sophomore year. Students who register at Los Angeles with the intention of later transferring to Berkeley or Davis to pursue other curricula or to obtain majors in the Plant Science curriculum other than Horticulture are requested to consult the PROSPECTUS OF THE COLLEGE OF AGRICULTURE and the appropriate advisers in Agriculture at Los Angeles.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN AGRICULTURE

PLANT SCIENCE CURRICULUM, MAJOR IN HORTICULTURE

The candidate for the degree of Bachelor of Science in the College of Agriculture must complete the following requirements:

(1) Four years of university residence. The senior year must be spent in the College of Agriculture at this University.

The student should note that in order to complete the work in agriculture within the normal four-year period, prerequisites must be systematically met and the proper sequence of courses followed. Unnecessary delay will thereby be avoided. It is advisable, therefore, for the student who wishes to receive his bachelor's degree in agriculture at the University of California to take as much of his undergraduate program as possible in the University.

(2) One hundred and twenty-four semester units of university work, with at least an equal number of grade points, in addition to matriculation units and Subject A. (The Subject A examination in English Composition is required

of every undergraduate student on or before his first registration in the University.) Further regulations concerning Subject A are given on page 38.

(3) Thirty-six of the 124 units must be in upper division courses (courses numbered 100-199). Not more than 4 units may be in lower division physical education courses.

(4) Nine units of mathematics, including trigonometry. Matriculation work may be offered toward this requirement, with each year of high school work valued at 3 units. The student normally satisfies this requirement before the end of his sophomore year in the University.

(5) American Institutions. The student may meet this requirement by passing an examination for which no credit is given, or by completing one of the following courses: American Institutions 101, History 171A-171B, History following courses: American Institutions 101, History 171 and 172, History 172 and 173, History 179, Political Science 3A, or the equivalents of these courses given in University Extension.

(6) In addition to requirement (4) above, every student must complete the requirements as listed under the following curriculum:

PLANT SCIENCE CURRICULUM

(a) Students must complete the following:

	Units
Chemistry	16
Botany and Plant Physiology.....	12
Physics	6
Bacteriology	4
Economics	6
Genetics	4
Plant Pathology	4
Plant Nutrition (Soil Science 110)	4
Entomology	4
Zoölogy	4
Geology	3
Military and Physical Education.....	8
	<hr/>
	75

(b) Students also must take a major with the minimum of 12 units of upper division work in Horticulture.

Freshman and Sophomore Years

During the freshman and sophomore years the following schedule will normally be followed. For examples of programs in other curricula of the College of Agriculture students should consult the PROSPECTUS OF THE COLLEGE OF AGRICULTURE and the appropriate advisers for agricultural students at Los Angeles.

The College of Agriculture requirements of graduation are the same whether the student registers at Berkeley, Davis, or Los Angeles.

Example of Program—Plant Science Curriculum

<i>Freshman Year</i>		Units first semester	Units second semester
Military or Naval Science (for men).....		1½	1½
Physical Education		½	½
Botany 1A-1B		4	4
Chemistry 1A-1B		5	5
Physics 2A-2B or 4A-4B		4 or 3	4 or 3
Economics 1A .....		..	3
Geology 2.....		3 or 4	..
		18	18 or 17
<i>Sophomore Year</i>			
Military or Naval Science (for men).....		1½	1½
Physical Education		½	½
Botany 6, 7		3	4
Chemistry 6A, 8.....		3	3
Zoölogy 1A.....		5	..
Bacteriology 1 .....		..	4
Economics 1B .....		..	3
Horticulture 2		3	..
Horticulture 10 .....		..	2
		16	18

There is no Associate in Arts degree in the College of Agriculture. Consequently students who are unable to meet the above-outlined program of study during the first two years may take some of the requirements in their junior or senior years. It should be noted, however, that any great departure from the above program may delay graduation beyond the normal four-year period.

Junior and Senior Years

The additional required courses—Entomology 134, Zoölogy 130 and 131 (Genetics), Soil Science 110, Plant Pathology 120, and American Institutions 101—together with such electives in any department as may be approved by the major adviser will be taken during the junior and senior years. Entomology 1, normally taken in the sophomore year, may be substituted for course 134 and Plant Pathology 130 for course 120. For elective courses in other departments the latter pages of this Catalogue should be consulted.

Students should consult the major adviser concerning the 12 units required for the major in Horticulture.

OTHER CURRICULA

The requirements in the other curricula offered by the College of Agriculture will be found in the PROSPECTUS OF THE COLLEGE OF AGRICULTURE. Programs suitable for the conditions at Los Angeles may be had from the appropriate advisers in Agriculture, who should be consulted.

HONORS

Students who become candidates for the bachelor's degree in the College of Agriculture may be recommended for honors on the basis of the quality of the work done in the regular curriculum.

I. *Honorable mention with Junior Standing* (that is, to students who have completed 64 units in their freshman and sophomore years).

- (1) Honorable mention is granted with junior standing to students who attain at least an average of two grade points for each unit of credit undertaken. Such students will remain in honors status unless their average for all work at the end of any semester falls below two grade points for each unit undertaken.
- (2) The list of students who receive Honorable Mention is sent to the chairman or study-list officer of the College before the beginning of the next semester. The list of those in honors status is published in the **CATALOGUE OF OFFICERS AND STUDENTS**.

II. *Honors with the Bachelor's Degree.*

- (1) Honors are granted at graduation only to students in honors status who have completed the major with distinction, and who have a general record satisfactory to the Committee on Honors.
- (2) Students who, in the judgment of the Committee on Honors, show marked superiority in their major subject may be recommended for the special distinction of Highest Honors.
- (3) A list of students to whom Honors or Highest Honors in the College have been awarded is published in the **COMMENCEMENT PROGRAMME**.

COLLEGE OF APPLIED ARTS

THE COLLEGE OF APPLIED ARTS was established on the Los Angeles campus of the University of California to meet a demand for curricula of a specialized character which have to a considerable extent technical or professional appeal, and to maintain and develop certain curricula leading to special secondary teaching credentials. In keeping with the policy of the University to serve the needs of the community and the State, it is expected that the curricular offerings will be broadened from time to time.

With the discontinuance of the Teachers College July 1, 1939, the College of Applied Arts began to offer four-year curricula in art and music leading to the Bachelor of Arts degree, and in home economics, mechanic arts and physical education leading to the Bachelor of Science degree. A group major in dance leading to the degree of Bachelor of Science was added in 1940-41, and a curriculum in drama leading to the degree of Bachelor of Arts will be added in 1941-42. In addition, for properly qualified graduate nurses, a curriculum has been established leading to the Bachelor of Science degree. In all of these curricula except Public Health Nursing and the group major in dance it will be possible to secure the Special Secondary Teaching Credential by following closely regulations laid down by the School of Education. It should be noted, however, that it is now possible to obtain the degree without working for the teaching credential.

Certain lower division curricula are listed in the offering of the College of Applied Arts. These include preengineering, premining, prenursing, preop-tometry, and prepharmacy. These curricula may be used as preparation for admission to the professional colleges and schools of the University in Berkeley and in San Francisco.

REQUIREMENTS FOR GRADUATION

Lower Division

Requirements for the Degree of Associate in Arts

The work of the lower division comprises the studies of the freshman and sophomore years. The degree of Associate in Arts or its equivalent is required for admission to the upper division of the College of Applied Arts.

A student who transfers from another college of this University or from another institution must meet the requirements for the degree of Associate in Arts; but, if credit of 60 or more units is allowed him, he is given upper division standing and may meet subject shortages concurrently with degree requirements.

Certain courses taken in the high school are accepted as fulfilling in part or in whole some of the requirements for the degree of Associate in Arts. The student should so arrange his high school program as to reduce the required work in foreign language. However, the fulfillment of lower division require-

ments in the high school does not reduce the number of units required in the University for the degree of Associate in Arts (60) or for the bachelor's degree (120).

The bachelor's degree requirement of 120 units is calculated on the assumption that the student will normally take 15 units of work each semester, including the prescribed work in military science and physical education.

The degree of Associate in Arts will be granted on the completion of 60 units of college work (of which at least 24 were completed in residence in the College) with a grade-point average in all work done in the University of not less than 1.00 (a "C" average), and the fulfillment of the following general and specific requirements:

(a) *General University requirements.*†

Subject A.‡

Military Science and Tactics, or Naval Science and Tactics, 6 units (men).

Physical Education, 2 units.

(b) *Either:*

(b₁) *Foreign Language.* At least 15 units in one foreign language. Each year of high school work in this language of grade B or higher not duplicated by college work§ will count as 3 units in satisfaction of this requirement, but will not reduce the total number of units for the degree of Associate in Arts or the bachelor's degree. Courses given in English by a foreign language department will not be accepted in satisfaction of this requirement.

OR

(b₂) *Natural Science.* At least 12 units chosen from the following list, of which not less than 3 units must be in courses with laboratory work. Courses marked with an asterisk (*) apply on the laboratory requirement.

Astronomy 1, 2*, 7A-7B.

Bacteriology 1*, 6.

Biology 1, 12.

Botany 1A*, 1B*.

Chemistry 1A*, 1B*, 2A*, 2B*, 6A*, 6B*, 8, 9*, 10*.

Entomology 1*.

† For information concerning exemption from these requirements apply to the Registrar.

‡ An examination in Subject A (English Composition) is required of all entrants at the time of their first registration in the University. For further regulations concerning Subject A, see page 88.

§ Any student who because of lapse of time or other circumstance feels unable to continue successfully a language begun in high school may consult the department of the language concerned regarding the possibility of repeating all or a part of the work for credit. Such credit would count on the 60 units required for the degree of Associate in Arts and on the 120 units required for the degree; but credit is not allowed toward the required 15 units in foreign language for both the high school and college work thus duplicated.

Geography 3.

Geology 2, 2L*, 3, 5*.

Paleontology 1.

Physics 1A*, 1B*, 1C*, 1D*, 2A*, 2B*, 4A, 4B.

Physiology 1*, 2*.

Zoölogy 1A*, 1B*, 35*.

OR

- (b.) A combination of *Foreign Language* and *Natural Science* to be distributed as follows:

Foreign Language. At least 15 units in not more than two languages, with not less than 6 units in any one language. Each year of high school work with grade B or higher not duplicated by college work will be counted in satisfaction of 3 units of this requirement, without, however, reducing the total number of units required for the degree of Associate in Arts (60) or for the bachelor's degree (120). Courses given in English by a foreign language department will not be accepted in fulfillment of this requirement. If a new language is begun in the University the student must complete a full year's work in this language; namely, the completion of course 2 with its prerequisites.

Natural Science. At least 9 units chosen from the natural science list set forth above, of which not less than three units must be in courses with laboratory work. Three units of mathematics not offered in satisfaction of (d) 3 below may be substituted for three units of this requirements.

- (c) *Matriculation Mathematics.* Elementary algebra and plane geometry. If these subjects were not completed in the high school, they may be taken in the University of California Extension Division or Summer Sessions, but will not be counted as a part of the 60 units.

- (d) *Three Year-Courses.* A year-course chosen from each of three of the following seven groups, at least one of which must be chosen from 1, 2 or 3. Only the courses specified below are acceptable.

1. English, Public Speaking:

English 1A-1B, 36A-36B

Public Speaking 1A-1B, 2A-2B

English 1A and Public Speaking 1A, English 1A and Public Speaking 2A, English 1A and 40, Public Speaking 1A and 2A.

2. Foreign language (courses offered in satisfaction of this requirement may not include any of the work offered as part of the requirement

Undergraduate Curricula

in language under requirement (b) above. No high school work may be counted on this requirement).

French, any two consecutive courses from the following:

1, 1A, 1B, 2, 3, 3A, 3B, 25A, 25B.

German, any two consecutive courses from the following:

1, 1A, 1B, 2, 3, 3A, 3B, 6A, 6B, 25A, 25B.

Greek, 1A-1B, 101, 102.

Italian, any two consecutive courses from the following:

1, 1A, 1B, 2, 3A, 3B.

Latin, any two consecutive courses from the following:

A, B, 1, 2, 5A, 5B, 102, 106.

Spanish, any two consecutive courses from the following:

1, 1A, 1B, 2, 3, 3A, 3B, 20, 25A, 25B.

3. Mathematics:

Any two of the following courses: Mathematics C, 2, 6, 7, 8, 3A, 3B, 4A, Statistics 1.

4. Social Sciences:

Anthropology 1A-1B

Economics 1A-1B

Geography 1A-1B, 5A-5B

History 4A-4B, 5A-5B, 7A-7B, 8A-8B

Political Science 3A-3B, 31 and 32

Sociology 30A-30B.

5. Psychology 21, 22.

6. Philosophy:

Philosophy 1A-1B, 2A-2B, 3A-3B.

7. Music and Art (acceptable only for students when the specific sequence is not the major):

Art 1A-1B, 2A-2B, 4A-4B.

Music 1A-1B, 2A-2B, 10A-10B, 11A-11B, 35A-35B.

Summer Session Courses. Summer session courses acceptable in meeting requirements for the degree of Associate in Arts are listed each year in the bulletins of the summer sessions.

University Extension. Courses in the University of California Extension Division may be offered in satisfaction of requirements for the degree of Associate in Arts provided they bear the same number as acceptable courses in the regular session. (Equivalent courses bear the prefix "XL".)

Upper Division

Students entering the College from another institution with sixty or more units of advanced standing as determined by the local subcommittee of the Board of Admissions will be permitted to enroll in the upper division.

*Requirements for Graduation in Addition to Those for
the Degree of Associate in Arts*

The bachelor's degree (see item 5 below) will be granted upon the following conditions:

1. The minimum number of units for the degree is 120. The student must attain at least a C average, that is, he must have obtained at least as many grade points as there are units in the total credit value of all courses undertaken by him in the University of California.
2. He must have completed all lower division requirements of the College of Applied Arts.
3. He must have completed the course in American Institutions 101 (or its equivalent).
4. After the receipt of the degree of Associate in Arts or the equivalent, the candidate must have completed at least 50 units of college work, of which at least 42 must be in upper division courses.
5. For the degree of Bachelor of Arts, he must have completed, with a scholarship average of at least one grade point for each unit of credit, a major of 36 units* of coördinated upper division courses approved by the Department of Art or the Department of Music or the Committee on the Curriculum in Drama, and must have been recommended by such department or committee.

For the degree of Bachelor of Science, the candidate must have completed, with a scholarship average of at least one grade point per unit, a major of 36 units* of coördinated upper division courses approved by the Department of Home Economics, the Department of Mechanic Arts, or the Department of Physical Education, and must have been recommended by his department.

Each student is required to take at least 6 units in his major (either 3 units each semester or 2 units one semester and 4 units the other) during his last or senior year.

6. The candidate must have completed one minor of not less than 20 units of coördinated courses (aside from courses taken in education), not less than 6 of which shall be in upper division courses.
7. All candidates for the degree must complete the final 24 units of work in the College of Applied Arts. At least 12 units of the final 24 must be taken in fall or spring sessions. The remaining 12 units may be taken in the University of California summer sessions. This regulation applies to students entering this University from other institu-

* Courses in education which have been used in satisfaction of requirements for a teaching credential may not be counted as a part of the 36-unit major.

tions or from the University of California Extension Division, and to students transferring from other colleges of this University.

8. Students who transfer to the University of California at Los Angeles from other institutions or from the University of California Extension Division with senior standing must complete at least 18 units in upper division courses in the College of Applied Arts, including at least 12 units in the major department. This regulation does not apply to students transferring from other colleges within the University.
9. No student is permitted to change his major after the opening of the last semester of his senior year.
10. Any department offering a major in the College of Applied Arts may require from the candidates for the degree a general final examination in the department.

Students who fail in the lower division to attain at least a C average in any department may be denied the privilege of a major in that department.

The major department may submit to the Dean of the College the name of any student who in the opinion of the department cannot profitably continue in the major, together with a statement of the basis for this opinion, and the probable cause of the lack of success. The Dean may permit a change in the major, or may, with the approval of the President, require the student to withdraw from the College.

Requirements for Graduation in the Public Health Nursing Curriculum

The degree of Bachelor of Science will be granted, upon recommendation of the Faculty of the College of Applied Arts, to students who have completed, with at least 120 units of work, the following requirements:

1. The student must be a graduate of an approved school of nursing.
2. The student must complete the equivalent of the requirements for the degree of Associate in Arts of the College of Applied Arts or of the College of Letters and Science at Los Angeles, or at Berkeley.
3. The student must complete at least 60 units of such additional work as may be prescribed by the Committee on Curricula in Nursing including the specific courses for the year of specialization in public health nursing as outlined in the Curriculum in Public Health Nursing. Not more than 30 units of work completed in a school of nursing other than that of the University of California will be accepted in partial satisfaction of this requirement.
4. The final year must be spent in study in the academic departments of the University of California (at Los Angeles) subject to the approval of the Committee on Curricula in Nursing.
5. The field work in Public Health Nursing must be completed satisfactorily before the bachelor's degree is granted.

ORGANIZED MAJORS AND CURRICULA

A major or curriculum consists of 36 units of coördinated upper division courses. The upper division unit requirement may represent courses in one or more departments. The details of the program must be approved by the officer in charge.

Special attention is directed to the courses listed as preparation for the major. In general, it is essential that these courses be completed before upper division major work is undertaken. In any event they are essential requirements for the completion of the major.

The major must, in its entirety, consist (1) of courses taken in *resident instruction* at this or another university (fall, spring, and summer sessions), or (2) of courses with numbers having the prefix XL, XB, or X taken in the University of California Extension Division.

The student must attain an average grade of C (1 grade point for each unit of credit) in all courses offered as part of the major (or curriculum).

Departmental majors are offered in the following fields:

Art	Music
Home Economics	Physical Education for Men
Mechanic Arts	Physical Education for Women.

Detailed statements of the requirements for these majors, as well as the work to be taken in preparation for them, will be found in the departmental announcements in this Catalogue, and also in the ANNOUNCEMENT OF THE COLLEGE OF APPLIED ARTS.

GROUP MAJOR IN DANCE

The Group Major in Dance is designed to give students an opportunity to study in an area involving art, English, music, philosophy, physical education and psychology as related to dance. This curriculum is not planned to train professional dancers, but rather to offer those interested in dance a program of study in contributing fields.

Preparation for the Group Major.—Required: Art 1A-1B, 2A-2B, 48, English 36A-36B, Physical Education 31. Recommended: Biology 1, Chemistry 2A-2B, English 1A-1B, French 1, 2, Music 2A-2B, Philosophy 1A-1B or 2A-2B or 3A-3B, Physiology 1, Psychology 21, 22, Zoölogy 35.

The Group Major.—Required: Art 101 or 183, English 114A-114B, Philosophy 136, Psychology 138 and 171, Physical Education 114A, 120, 130A-130B, 133, 135, 149, and three units to be selected from Physical Education 104A-104B, 114B, 131, 140, 172, 180, 190, 192A. Recommended minor: either English or art; English 31, 117J, 153, or Art 101 (or 183A), 168A-168B and four units to be chosen on recommendation of the Committee on Group Major in Dance.

CURRICULUM IN DRAMA

The Curriculum in Drama offers students an opportunity to study in an area involving basic training in English literature, oral and literary interpretation, play production and directing, and some experience in design, supervision, and costume of the theater. This curriculum is not designed to train students professionally for the stage, but to offer those interested a program of coordinated courses in the field of the theater arts. It is an excellent preparation for the English-speech field major looking toward the general secondary teaching credential.

Preparation for the Major.—Art 48, English 4A-4B or 5A-5B, 36A-36B, Physical Education 31, Public Speaking 2A-2B.

The Major.—English 114A-114B, 117J, six units to be selected from 151L, 156, 157, 167, 177, 187, 190A, 190B; Public Speaking 111C, 155A-155B, 156; and nine units to be selected from Art 101B, 168A, 168B, 173, 183A, 183B, Philosophy 136A-136B, Psychology 138, 177, Public Speaking 111D, 122.

CURRICULA FOR NURSES**Combined College and Nursing Curriculum**

The University offers through the Colleges of Letters and Science (Los Angeles or Berkeley), the College of Applied Arts (Los Angeles), and the School of Nursing and University Hospital in San Francisco, a curriculum leading to the degree of Bachelor of Science and a Certificate in Nursing. Normally the work of the first two years is taken in the College of Letters and Science or the College of Applied Arts, and the final years in the University of California School of Nursing in San Francisco. For further information concerning the curriculum, see the ANNOUNCEMENT OF THE SCHOOL OF NURSING, which may be obtained from the Director of the School of Nursing, Medical Center, San Francisco, California.

Registered nurses, who have graduated from approved schools of nursing, and who meet the University matriculation requirements may receive the degree of Bachelor of Science in three or more years upon completing with an average grade of not lower than C, the lower division requirements in the College of Applied Arts or of the College of Letters and Science at Los Angeles or Berkeley, and a three-semester program of specialization in nursing. In this program the student is offered a choice of electives: public health nursing (which may be taken at Los Angeles or Berkeley), and nursing education (at Berkeley and San Francisco). A Certificate in Public Health Nursing (see below) or in Nursing Education may be obtained with an additional semester of field work.

CURRICULUM IN PRENURSING

A suggested program for the two years of academic work at Los Angeles is given below; additional information concerning the lower division require-

ments will be found on previous pages. The program for the year of specialization for students who elect public health nursing is given on page 100.

<i>First Academic Year</i>	Units first semester	Units second semester
Subject A (if required).....	..	..
Physical Education 4.....	$\frac{1}{2}$	$\frac{1}{2}$
Foreign Language or Electives.....	..	3-5
English 1A-1B (or Public Speaking 1A-1B or 2A-2B).....	3	3
Economics 1A-1B.....	3	3
Chemistry 2A-2B.....	4	4
Biology 1.....	3	..
Physical Education 2.....	2	..
Normal total.....	15 $\frac{1}{2}$	15 $\frac{1}{2}$

Second Academic Year

Physical Education 4.....	$\frac{1}{2}$	$\frac{1}{2}$
Psychology 21, 22.....	3	3
Physiology 1, 2.....	5	..
Zoölogy 35.....	..	3
Bacteriology 1.....	..	4
Physical Education 44.....	2	..
‡Home Economics 11A.....	..	3
‡Home Economics 32.....	..	2
‡Foreign Language or Electives.....	3-5	..
Normal total.....	15 $\frac{1}{2}$	15 $\frac{1}{2}$

Nursing Education. The professional curriculum in Nursing Education is open to regular students who have received the degree of Associate in Arts (or the equivalent) in the College of Letters and Science (Los Angeles or Berkeley) and who have been graduated by schools of nursing approved by the University of California; also to candidates for the B.S. degree who have completed the first four years of the five-year curriculum in nursing. The curriculum requires one or more years with an additional four months of field practice and leads to the Certificate in Nursing Education. For further information, consult the ANNOUNCEMENT OF THE SCHOOL OF NURSING.

CURRICULUM IN PUBLIC HEALTH NURSING

Admission to the Curriculum in Public Health Nursing is limited to students meeting requirements as follows:

1. Nurse registration in California or in the state of the student's residence.
2. Matriculation in the University as a regular student. Both elementary algebra and plane geometry are required. Send State Registration Certificate (and self-addressed stamped envelope for its return) with application to the Office of Admissions, University of California, Los Angeles.

‡ Elective for students planning to enter the School of Nursing, University of California.

† Inclusion of Sociology 30A-30B is recommended.

3. Completion of Sociology 30A-30B (or Economics 1A-1B by permission) and Psychology 21, 22, or approved equivalent courses. To such students the Certificate in Public Health Nursing will be awarded upon satisfaction of the following requirements and approval of the Committee on Curricula in Nursing.

(a) Completion of a total of not less than 36 units with a scholarship average of C, or higher, including

Sociology	5 units
Educational Psychology	3 units
Growth and Development of the Child.....	3 units
Public Health and Preventive Medicine.....	6 units
Principles and Practice in Public Health Nursing.....	3 units
Administration and Organization in Public Health Nursing...	3 units
Elements of Nutrition.....	2 units
Social Case Work	2 units

(b) American Institutions

(c) Continuous field service in public health nursing for a period of sixteen weeks*

Both the program of courses and the plan of field work must be approved by the Committee on Nursing Curricula.

The following program is required:

Year of Specialization in Public Health Nursing

(For Registered Nurses)

	Units first semester	Units second semester
American Institutions	2	..
Sociology 120, 181.....	3	2
Psychology 110	3	..
Education 111 .....	..	3
Public Health 101A-101B.....	3	3
Public Health Nursing 418, 419.....	3	3
Public Health Nursing 402.....	..	2
Home Economics 32.....	2	..
Electives .....	..	3
Total	16	16

For one semester of the following year there will be given field work in public health nursing, to carry 6 units of credit. (See page 134.)

Satisfactory completion of the three-semester program by a registered nurse, who has graduated from an approved school of nursing, and who in addition has met the lower division requirements in the College of Applied Arts, will lead to the bachelor's degree. It should be noted in connection with lower division work that the University accords no credit for "semiprofessional" or "terminal" courses.

* This course is a requirement for the degree of Bachelor of Science for students in the Public Health Nursing Curriculum but does not count toward the minimum unit requirement for the degree.

HONORS

Honorable Mention with the degree of Associate in Arts.—Honorable mention shall be granted with junior standing to students who attain at least an average of two grade points for each unit of work undertaken. Such students shall remain in honors status during the remainder of the undergraduate course unless the average for all work at the end of any semester falls below two grade points for each unit undertaken.

The list of students who receive Honorable Mention with the degree of Associate in Arts shall be sent to the chairmen of departments.

Honors Students in the Upper Division. The honors list shall include the names of:

- (a) Students who received Honorable Mention with the degree of Associate in Arts and who are in their first semester of the upper division.
- (b) Upper division students who have an average of at least two grade points for each unit undertaken in all undergraduate work in the University of California.
- (c) Other upper division students specially approved for listing in the honors status by the Committee on Honors, either upon recommendation made to the Committee by departments of instruction, or upon such other basis as the Committee may determine.

Honors with the Bachelor's Degree.

- (a) Honors shall be granted at graduation only to students who have completed the major with distinction, and who have a general record satisfactory to the Committee on Honors. Departmental recommendations shall be reported to the Registrar.
- (b) Students, who in the judgment of their departments, display marked superiority in their major subject, may be recommended for the special distinction of Highest Honors. Departmental recommendations shall be reported to the Registrar.
- (c) The Committee on Honors is empowered at its discretion to recommend to the Committee on Graduation Matters that Honors be granted only to students who have attained a B average or higher in the major, or in the upper division, or in all undergraduate work.
- (d) A list of students to whom Honors or Highest Honors in the various departments have been awarded shall be published in the COMMENCEMENT PROGRAMME.

PREPARATION FOR VARIOUS PROFESSIONAL CURRICULA

Certain courses given at the University of California at Los Angeles may be used as preparatory to the professional colleges and schools of the University in Berkeley and in San Francisco.

PREENGINEERING CURRICULA

Entrants to Engineering and to Mining will be seriously handicapped in undertaking the courses of the freshman year in these curricula unless they have completed *all* of the following subjects in high school: plane geometry, 1 unit; elementary algebra, 1 unit; algebraic theory, $\frac{1}{2}$ unit; trigonometry, $\frac{1}{2}$ unit; solid geometry, $\frac{1}{2}$ unit; physics, 1 unit; chemistry, 1 unit; geometrical drawing, 1 unit. Without this preparation it will be difficult or impossible to complete the required curriculum in four years, because the student cannot register for certain freshman and sophomore courses to which matriculation subjects are prerequisite. Beginning August, 1941, two years of high school algebra will be required.

CIVIL ENGINEERING

<i>Freshman</i>	Units first semester	Units second semester
Subject A (if required) .....	..	..
§ Military Science 1A-1B	1½	1½
Physical Education	½	½
Mathematics 8, 3AB	3	6
Physics 1A-1B	3	3
Chemistry 1A-1B	5	5
Mechanical Engineering 2	3	..
Total	16	16

Sophomores

§ Military Science 2A-2B	1½	1½
Mathematics 4A-4B	3	3
Physical Education	½	½
Astronomy 3 .....	..	1
Civil Engineering 8 .....	..	2
Physics 1C-1D	3	3
Geology 5 .....	..	4
Civil Engineering 1LA-1LB	2	2
Civil Engineering 1FA-1FB	1	1
Civil Engineering 3 (Summer Session) .....	..	(3)
† Mechanical Engineering 1	3	..
† Chemistry 8	3	..
Elective .....	..	..
	—	—
	*	*

* Normal total, 16 units.

† Mechanical Engineering 1 is required only in the Transportation and Irrigation Engineering groups; Chemistry 8 is required only in the Sanitary and Municipal Engineering group.

§ Students in the Naval Unit will substitute Naval Science 1A-1B (freshman year), 2A-2B (sophomore year), 2½ units per semester. For these students Astronomy 3 is not required.

MECHANICAL, ELECTRICAL, AND AGRICULTURAL ENGINEERING

	<i>Freshman</i>	Units first semester	Units second semester
Subject A (if required) .....	..	..	..
Military Science 1A-1B (or Naval Science 1A-1B)	1½	1½	1½
Physical Education	½	½	½
Mathematics 8, 3AB	3	6	6
Physics 1A-1B	3	3	3
Chemistry 1A-1B	5	5	5
Civil Engineering 1LA	2	..	..
Civil Engineering 1FA	1	..	..
	<hr/>	<hr/>	<hr/>
	<i>Sophomore</i>	16	16
Military Science 2A-2B (or Naval Science 2A-2B)	1½	1½	1½
Physical Education	½	½	½
Mathematics 4AB	6	..	..
Mathematics 10AB .....	..	4	4
Physics 1C-1D	3	3	3
Civil Engineering 8	2	..	..
Mechanical Engineering 10B .....	..	2	2
Mechanical Engineering 2, 6	3	3	3
Electives .....	..	..	..
	<hr/>	<hr/>	<hr/>
		*	*

PREMINING

Students in the College of Mining may elect one of four curricula: (1) Mining Engineering; (2) Metallurgy; (3) Economic Geology; and (4) Petroleum Engineering. Each is a four-year curriculum and leads to the degree of Bachelor of Science with the completion of 139 units of work.

These four curricula have a common requirement for the first year, after which the student is expected to elect the one in which he wishes to specialize. In the second year the courses listed at the beginning of the column are common requirements for all students in the College of Mining. In addition to these, each student is required to take the courses listed under his particular option.

	<i>Freshman</i>	Units first semester	Units second semester
Subject A (if required) .....	..	..	..
§ Military Science 1A-1B	1½	1½	1½
Physical Education	½	½	½
Mathematics 8, 3AB	3	6	6
Chemistry 1A-1B	5	5	5
† Mining 5A-5B	(1)	(1)	(1)
Physics 1A-1B	3	3	3
Mechanical Engineering D	2	..	..
	<hr/>	<hr/>	<hr/>
		15	16

* Normal total, 16 units.

‡ Students intending to major in Agricultural Engineering should omit Civil Engineering 8 and Mechanical Engineering 10B, and adjust their programs so as to include Economics 1A-1B and Geology 2.

† Mechanical Engineering D is the nearest substitute for Mining 5A-5B offered at the University of California at Los Angeles.

§ For military science, students in the Naval Unit will substitute Naval Science 1A-1B (freshman year), 2A-2B (sophomore year), 2½ units per semester.

	Units first semester	Units second semester
Sophomore		
§Military Science 2A-2B	1½	1½
Physical Education	½	½
Mathematics 4A-4B	3	3
Physics 1C-1D	3	3
Geology 5	4	..
Mineralogy 3A-3B	3	3
Civil Engineering 11A-11B	2	2
Civil Engineering 11FA-11FB	1	1
Civil Engineering 3 (Summer Session) .....	..	(3)
Courses listed in one of the options below .....	..	..
	—	—
	‡	‡

MINING

†Metallurgy 2 .....	..	(3)
†Mining 1A-1B	(3)	..
Mechanical Engineering 1	3	..
Mechanical Engineering 2 .....	..	3

METALLURGY

Chemistry 6A-6B	3	3
Mechanical Engineering 1	3	..

ECONOMIC GEOLOGY

Chemistry 6A-6B	3	3
Paleontology 1	2	..
Mechanical Engineering 2 .....	..	3

PETROLEUM ENGINEERING

Chemistry 6A	3	..
Mechanical Engineering 2 .....	..	3

PREOPTOMETRY

The University offers a four-year program in optometry, leading to the degree of Bachelor of Science and the Certificate of Completion in Optometry. The first two years may be taken at Los Angeles; the last two must be taken in the School of Optometry at Berkeley. The following curriculum outline should be followed, with such choice of electives as will meet the requirement for the degree of Associate in Arts in the College of Letters and Science, which is prerequisite to admission to the School of Optometry:

‡ Normal total, 17 to 18 units.

† Mining 1A-1B and Metallurgy 2 are not offered at the University of California at Los Angeles. It is suggested that Chemistry 6A-6B be taken.

§ For military science, students in the Naval Unit will substitute Naval Science 1A-1B (freshman year), 2A-2B (sophomore year), 2½ units per semester.

First Year

	Units first semester	Units second semester
Subject A (English composition).....	..	..
Military Science or Naval Science (men).....	1½	1½
Physical Education	½	½
Chemistry 1A-1B	5	5
Public Speaking 1A-1B.....	3	3
Physics 2A-2B	4	4
Mathematics 8, C.....	3	2
Normal total	17	16

Second Year

Military Science or Naval Science (men).....	1½	1½
Physical Education	½	½
Mathematics 3A .....	..	3
Psychology 21, 22.....	3	3
Physiology 1, 2.....	5	..
Foreign Language	5	5
Electives .....	..	..
Normal total	16	16

PREPHARMACY CURRICULUM

The College of Pharmacy offers a four-year curriculum leading to the degree of Bachelor of Science in Pharmacy.

The first year of the four-year curriculum may be taken in the University at Berkeley, Davis, or Los Angeles, or in another institution of approved standing. The courses of the final three years are given in the College of Pharmacy in San Francisco (with one exception—Physics 3A-3B is taken in Berkeley). Students who plan to take the first year's work in an institution other than the University of California, should consult the ANNOUNCEMENT OF THE COLLEGE OF PHARMACY in order to make certain that the requirements will be fulfilled.

Matriculation requirements. The requirements for admission to the four-year curriculum are the same as the requirements for admission to the academic departments of the University as stated in this Catalogue. The minimum age at which applicants will be admitted to this College is sixteen years. It is recommended that applicants present credit in Subject A (English Composition); English, 3 units; history, 1 unit; mathematics (algebra and plane geometry), 2 or 2½ units; chemistry, 1 unit; physics, 1 unit, or mathematics (including trigonometry), 3 units; German or French, 2 units; Latin, 2 units; biology, 1 unit. In addition a year of freehand drawing is recommended.

Graduation. The degree of Bachelor of Science in Pharmacy is granted upon completion of four years of residence and 129 units of credit. The student must also have obtained as many grade points as there are units of credit in all courses undertaken. For other requirements, see the ANNOUNCEMENT OF

Undergraduate Curricula

THE COLLEGE OF PHARMACY, which may be had by addressing the Dean's Office, University of California College of Pharmacy, Medical Center, San Francisco, California.

<i>Program of First Year</i> (At Los Angeles)		Units first semester	Units second semester
Subject A (if required).....	..	..	..
Physical Education	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Military Science (for men).....	$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{2}$
Chemistry 1A-1B	5	5	5
Botany 1A-1B	4	4	4
Mathematics 8, C†.....	3	2†	2†
‡English 1A-1B or Public Speaking 1A-1B.....	3	3	3
Electives .....	..	..	..
Normal total	17	16	16

† Required only of students who do not offer trigonometry for matriculation.

‡ German may be substituted for English 1A-1B or Public Speaking 1A-1B provided German has not been taken in high school. Students are advised to take two years of German in high school when possible.

THE GRADUATE DIVISION

SOUTHERN SECTION

THE UNIVERSITY OF CALIFORNIA offers in the Graduate Division, Southern Section, advanced study leading to the degrees of Master of Arts, Master of Science, and Doctor of Philosophy, and to the certificates of completion for the general secondary and junior college teaching credentials. For more complete information concerning the work of the Division, and concerning the requirements for higher degrees, consult the ANNOUNCEMENT OF THE GRADUATE DIVISION, SOUTHERN SECTION, which may be had upon application to the Registrar of the University of California, Los Angeles, California.

DEFINITION OF ACADEMIC RESIDENCE

Every regular graduate student must register for, attend, and complete upper division courses (courses in the 100 series) or graduate courses (200 series) amounting to at least 4 units a week for each semester, in order to satisfy the minimum residence requirement in candidacy for any higher degree or certificate issued by the University. The corresponding minimum program for a summer session (or intersession) is 2 units.

STUDY-LIST LIMITS

In order to counteract the tendency to accumulate credits by sacrificing thoroughness and the high scholarly attainment which comes only through intense application, the University restricts the number of units in which a student may enroll.

A graduate student in a regular session is limited to 16 units when he takes only upper division courses, to 12 units when he takes only graduate courses, and to a total made up in the proper proportion of 12 to 16—as for example, 6 graduate and 8 upper division—when he takes both upper division and graduate courses.

Teaching assistants and others employed approximately on half time are limited to three-fourths of these totals. Four units of upper division or graduate courses is the program limit for graduate students engaged on full time in other occupations.

REQUIREMENTS FOR THE MASTER'S DEGREE

Preparation. The candidate's preliminary training for the degree of Master of Arts or Master of Science should be substantially the equivalent of that represented by the corresponding bachelor's degree. In the University of California, the bachelor's degree indicates eight years of systematic high school and college work distributed according to the University's requirements for the particular college or course in which the degree is offered.

If the candidate's undergraduate course has been deficient in breadth of

fundamental training and fails to provide a proper foundation for advanced work in the department or departments of his choice, it probably will be necessary for him to take specified undergraduate courses before he may be admitted to regular graduate status.

The degree. The Master of Arts degree is awarded for the completion of requirements in any of the major subjects of graduate study at the University of California at Los Angeles except agriculture, business administration, and home economics, in which the degree of Master of Science is given. Students in mathematics or science, however, who have fulfilled the requirements for the Bachelor of Science degree, as well as those for the master's degree, may be awarded the degree of Master of Science.

Major fields. The major fields for the master's degree are:

Agriculture (Subtropical Horticulture)	French	*Oceanography
Applied Physics	Geography	Philosophy
Art	Geology	Physical Education
Botany	German	Physics
Business Administration	History	Physics-Meteorology
Chemistry	Home Economics	Political Science
Economics	Latin	Psychology
Education	Mathematics	Spanish
English	Microbiology	Zoölogy
	Music	

Application for advancement to candidacy. Advancement to candidacy must occur not later than one semester prior to the completion of requirements for the degree. Students are warned that such advancement is not automatic, but requires a formal application distinct from registration. A date one week after the filing of study lists is set each semester for application for candidacy by those who hope to qualify for degrees at the close of that session.

Amount and distribution of work. A student must pursue one of the following plans at the option of the department of his major field for fulfillment of the requirements for the master's degree. Under either plan all requirements for the degree must be satisfied within a calendar year from the time of completion of the course requirement.

Plan I: Thesis Plan. At least 20 semester units and a thesis are required. The units must be taken in graduate or upper division undergraduate courses, and at least 8 of the 20 must be in strictly graduate work in the major subject. No unit credit is allowed for the thesis. It is expected that the work of the graduate course, or courses, together with the thesis will not be less than half of the work presented for the degree. After these general and the special departmental requirements are met, the student may take any course in the 100

* At Scripps Institution of Oceanography, La Jolla.

or 200 series, although he is subject to his major department's guidance in the distribution of his work among the departments. In addition, the major department may require any examination which seems necessary to test the candidate's knowledge of his field.

Plan II: Comprehensive Examination Plan. Twenty-four units of upper division and graduate courses are required, of which at least 12 units must be in strictly graduate courses in the major subject. After these general and the special departmental requirements are met, the student may take any course in the 100 or 200 series, although he is subject to his major department's guidance in the distribution of his work among the departments. A comprehensive final examination in the major subject, its kind and conduct to be determined by the department concerned, is taken by each candidate.

Scholarship. Only courses in which the student is assigned grades A, B, or C are counted in satisfaction of the requirements for the master's degree. Furthermore, the student must maintain an average of two grade points a unit in those courses and also in all others elected at the University subsequent to the bachelor's degree; this includes upper division or lower division courses taken in unclassified status. Three grade points for each unit of credit are given to grade A, two points to grade B, one point to grade C, none to grades D, X, and F. (See under Grades of Scholarship, page 44.)

Foreign Language. A reading knowledge of a modern foreign language (other than that of the major subject, if the major is a foreign language) is required of each candidate for the master's degree; this requirement must be satisfied before the student is admitted to candidacy. The department of the candidate's major must approve the language selected. In specific instances the Dean of the Graduate Division may authorize the substitution of Latin for a modern language upon the recommendation of the department of the student's major. The examination is to be conducted by the language department in question.

Residence. The minimum period of academic residence required is one year, of which at least one semester must be spent at Los Angeles. The requirement may be satisfied in part by residence in the University's summer sessions, each of which counts as one-fourth of a year, or in the Graduate Division, Northern Section.

A student is not regarded as in residence unless he is actually attending, in a regular session, regularly authorized university exercises amounting to at least 4 units of upper division or graduate work, or at least 2 units of similar work in a summer session.

Ordinarily all of the work for the master's degree is expected to be done in residence, but a graduate of this University or any other approved candidate may complete part of his work in absence, subject to the approval of the Graduate Council, the regulations on study in absence, and the minimum residence requirement of one year.

The thesis. The thesis is the student's report, in as brief a form as possible, of the results of his original investigation. Although the problems for master's degree candidates are of limited scope, they must be attacked in the same systematic and scholarly way as problems of greater magnitude, as, for example, one under investigation by a candidate for the doctor's degree. Before beginning his work on a thesis, the student must receive the approval of his major department and the instructor concerned, on the subject and general plan of investigation. Detailed instructions concerning the physical form in which theses must be submitted may be had upon application to the Dean of the Graduate Division.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

Students who desire to become candidates for the doctor's degree should bear in mind that the degree of Doctor of Philosophy is granted by the University of California not for the fulfillment of technical requirements alone, such as residence and the completion of fundamental courses within a chosen field, but more for the student's general grasp of the subject matter of a large field of study and his distinguished attainments within it, for his critical ability, his power to analyze problems and to coördinate and correlate the data from allied fields to serve the progress of ideas. In addition, he must demonstrate, through his dissertation, the ability to make an original contribution to the knowledge of his chosen field, and throughout his career as a graduate student must prove himself capable of working independently.

Fields of study for 1941-42. The fields of study open to candidates for the degree of Doctor of Philosophy are chemistry, English, geology, Germanic languages, history, horticultural science, mathematics, microbiology, oceanography, philosophy, physical-biological science, physics, political science, psychology, Romance philology, and zoölogy. Other fields and departments will be added as circumstances warrant.

Preparation. A prospective candidate for this degree must hold a bachelor's degree from one of the colleges of this University, based on a curriculum that includes the requirements for full graduate status in the department of his major subject, or must have pursued successfully an equivalent course of study.

Residence. The minimum residence requirement for the doctor's degree is two years, one of which, ordinarily the second, must be spent in continuous residence at the University of California at Los Angeles. (See also *Program of Study*, below.)

Foreign language. A reading knowledge of French and German is required of every candidate for the Ph.D. degree and this requirement must be satisfied before he takes the qualifying examinations for advancement to candidacy. In special cases, with the consent of the department of the candidate's major and the Dean of the Graduate Division, another language may be substituted for

one of those mentioned, provided the language selected has a clear bearing on the candidate's field of research. The examination is to be conducted by the language department in question, and certification by the language department of the successful completion of this examination must be attached to the student's application for permission to take the qualifying examinations for the Ph.D. degree.

Program of study. The student's program of study must be approved by the Graduate Council, must embrace a field of investigation previously approved by his department or interdepartment group, and extend over the full period of study. However, recommendation for the degree is based on the attainments of the candidate rather than duration of his study, and ordinarily not less than three full years will be needed to finish the work.

Notice of Ph.D. degree candidacy. As early as possible, preferably at the end of the first semester of graduate study, the student should declare his intention of proceeding to candidacy for the Ph.D. degree. This notification should be given to the department or interdepartment group of the student's field of study and to the Dean; forms for the purpose may be had at the office of the Dean of the Graduate Division.

Guidance committees. On receiving such notification an informal guidance committee will be appointed by the department or interdepartment group of the student's field of study to assist the student in making out his program and in preparing him for the qualifying examinations. This committee must give its written approval to the department before the student is permitted to take these examinations and it ceases to exist as soon as he has passed the qualifying examinations.

Qualifying examinations. Before he is admitted to candidacy, the student must pass a series of qualifying examinations, both written and oral. The written examinations may be administered by the department of the student's field of study, but the oral examination must be conducted by his doctoral committee (see below). The qualifying oral examination is never open to the public.

Doctoral committees. Upon nomination of the department or interdepartment group of the student's field of study a doctoral committee will be appointed by the Graduate Council. This committee conducts the qualifying oral examination (in some cases also the written examinations), supervises and passes upon the student's dissertation, and conducts the final oral examination. For this final oral examination additional members may be appointed to the committee by the Dean of the Graduate Division in consultation with the department.

Advancement to candidacy. The candidate must file his application, properly approved by the committee conducting the qualifying examinations, and must report in person to the Dean of the Graduate Division who determines whether all formal requirements have been met.

A minimum period of resident study approximately equivalent to two semes-

ters must intervene between the date of formal advancement to candidacy and the date of the final examination.

The dissertation. A dissertation on a subject chosen by the candidate, bearing on his principal study and showing his ability to make independent investigation, is required of every candidate for the degree. In its preparation the candidate is guided by his doctoral committee, which also passes on the merits of the completed dissertation, and the approval of this committee, as well as that of the Graduate Council, is required before he is recommended for the degree. Special emphasis is laid on this requirement. The degree is never given merely for the faithful completion of a course of study, however extensive.

The dissertation must be typewritten or printed. Specific instructions concerning the form may be obtained from the Dean of the Graduate Division. Two copies of the approved dissertation (if it is typewritten, the original and the first carbon) must be filed with the Dean two weeks before the proposed date of the final examinations, for later deposition in the University Library. In certain instances, however, the Graduate Council may authorize the final examination to be taken before the dissertation is accepted.

Final examination. The candidate's final examination is conducted by his doctoral committee. The examination is oral and deals primarily with the relations of the dissertation to the general field in which its subject lies. Admission to the final examination may be restricted to committee members, members of the Academic Senate, and guests of equivalent academic rank from other institutions.

THE BACHELOR'S DEGREE FOR GRADUATE STUDENTS

Graduate students may be recommended as candidates for the degree of Bachelor of Arts or Bachelor of Science on completing at least 24 units during one or more years of attendance upon such courses of instruction as are regularly pursued by seniors in the University of California, and on performing such additional work and passing such examinations as may appear necessary to the Executive Committee of the appropriate college. Candidates for a bachelor's degree may register as graduate students with the permission of the Graduate Council, but their course of study will be subject to the jurisdiction of the college concerned, which college shall set requirements and shall also make recommendation for the degree. In all cases candidates must satisfy the requirement of 36 units of advanced studies in the College of Letters and Science, or their equivalent in the colleges of applied science, not all of which, however, need have been completed while in residence at this University. No person will be recommended for a bachelor's degree who shall not have satisfied substantially, at the time of procedure to the degree, the conditions imposed upon undergraduate students at the University of California.

SCHOOL OF EDUCATION

LOS ANGELES

THE SCHOOL OF EDUCATION, established on the Los Angeles campus July 1, 1939, offers professional curricula to students preparing for teaching service in elementary and secondary schools, and for experienced teachers desiring preparation for educational administration, research, or other specialized phases of public school education. The School of Education makes provision for all types of teacher training formerly offered in the Teachers College, which was discontinued on June 30, 1939.*

Applicants for admission to the School of Education must be students in good standing in the University of California, must have completed the requirements for the degree of Associate in Arts in one of the colleges of the University, or the equivalent, and must be approved by a physician of the University of California as having met the health requirements of the State Board of Education.

Although admission to curricula of the School of Education is contingent upon the attainment of full junior standing, as defined above, representatives of the School will be glad to advise students interested in the most effective preparation for various teaching fields, during their freshman and sophomore years. All such students are urged to consult the Dean of the School of Education as early as possible in their academic careers.

The School of Education offers curricula leading to certificates of completion and state credentials authorizing service in the following fields:

1. Kindergarten-Primary
2. Elementary
3. Junior High School
4. Special Secondary in the fields of:
 - a. Art
 - b. Business Education
 - c. Homemaking
 - d. Industrial Arts
 - e. Music
 - f. Physical Education
 - g. Trade and Industrial Education
5. General Secondary
6. Junior College
7. Elementary School Administration

* Students holding teaching credentials issued by the Los Angeles State Normal School or by the Teachers College of the University of California, and students registered in the Teachers College who have completed at least 12 units in regular sessions prior to July 1, 1939, may qualify for the degree, Bachelor of Education, on the basis of the requirements in effect during the academic year 1938-39, provided that these requirements are completed prior to September 15, 1943. After that date the degree Bachelor of Education will not be awarded.

8. Secondary School Administration

9. Special Supervision.

It is no longer possible for new students to enroll in the Teachers College. Students planning to prepare for kindergarten-primary or elementary school teaching may enroll either in the College of Letters and Science, or if their major interests lie in the fields of art, homemaking, industrial arts, music, or physical education, in the College of Applied Arts. Those enrolling in the College of Letters and Science should choose the general major, or a major related to the curriculum of the elementary schools.

Students desiring to prepare for the special secondary credential, which is limited to one field, should enroll in the College of Applied Arts if the proposed major is art, homemaking, industrial arts, music, or physical education. Those desiring the special secondary credential in business education may register either in the College of Business Administration, or the College of Letters and Science with a major in economics.

Candidates for the general secondary credential may enroll for their undergraduate work in the College of Letters and Science, the College of Agriculture, the College of Business Administration, or the College of Applied Arts (if the major is art, homemaking, music, or physical education).

It is highly desirable that all students preparing for teaching consult the Educational Counselor of the School of Education as early as possible in their academic careers, in order that their programs of study may be efficiently planned.

A complete statement of curricula, requirements, and procedures in the School of Education will be found in the ANNOUNCEMENT OF THE SCHOOL OF EDUCATION, LOS ANGELES, which may be obtained at the office of the Dean, 231 Education Building on the Los Angeles campus, or by mail upon application to the Registrar of the University of California, Los Angeles, California.

ANNOUNCEMENT OF COURSES FOR THE ACADEMIC YEAR 1941-42

CLASSIFICATION AND NUMBERING

COURSES ARE CLASSIFIED and numbered as follows:

Undergraduate courses. These are of two kinds, lower division and upper division.

A lower division course (numbered 1-49, or sometimes indicated by a letter if the subject is one usually given in high school) is open to freshmen and sophomores, and does not count as upper division work in any department.

An upper division course (numbered 100-199) is advanced study in a field which has been pursued in the lower division, or elementary work in a subject of sufficient difficulty to require the maturity of upper division students.

Graduate courses (numbered 200-299) are open only to students accepted in regular graduate status. As a condition for enrollment in a graduate course the student must submit to the instructor in charge of the course evidence of satisfactory preparation for the work proposed; adequate preparation will consist normally of the completion of at least 12 units of upper division work basic to the subject of the graduate course, irrespective of the department in which such basic work may have been completed. Students in unclassified graduate status are not admitted to graduate courses.

Teachers' courses (numbered 300-399). The designation 300-399 denotes highly specialized courses dealing with methods of teaching specific subjects. Such courses are acceptable toward academic degrees only within the limitations prescribed by the various colleges.

ABBREVIATIONS

In the following list of courses, the credit value of each course in semester units is indicated by a number in parentheses after the title. A unit of registration is one hour of the student's time at the University, weekly, during one semester, in lecture or recitation, together with the time necessary in preparation therefor; or a longer time in laboratory or other exercises not requiring preparation. The session in which the course is given is shown by Roman numerals: I for the first semester, and II for the second semester. A course given throughout the year is designated: Yr. The assignment of hours is made in the **SCHEDULE OF CLASSES AND DIRECTORY** to be obtained at the time of registration.

Year courses. A course given throughout the year is designated by a double number. Economics 1A-1B is an example. Each half of the course constitutes a semester's work. The first half is prerequisite to the second unless there is an explicit statement to the contrary. The instructor makes a final report on the student's work at the end of each semester. Unless otherwise noted, the student may take the first half only and receive final credit for it.

AGRICULTURE

WILLIAM H. CHANDLER, Ph.D., Professor of Horticulture.

ROBERT W. HODGSON, M.S., Professor of Subtropical Horticulture.

CLAUDE B. HUTCHISON, M.S., LL.D. D.Agr. (hon.c.) Professor of Agriculture (Chairman of the Department).

RALPH H. SMITH, Ph.D., Professor of Entomology.

*SIDNEY H. CAMERON, Ph.D., Associate Professor of Subtropical Horticulture.

FREDERICK F. HALMA, Ph.D., Associate Professor of Subtropical Horticulture.

MARTIN R. HUBERTY, Engr., Associate Professor of Irrigation.

DAVID APPLEMAN, Ph.D., Assistant Professor of Plant Nutrition.

KENNETH F. BAKER, Ph.D., Assistant Professor of Plant Pathology.

WALTER E. LAMMERTS, Ph.D., Assistant Professor of Ornamental Horticulture.

PIERRE A. MILLER, M.S., Assistant Professor of Plant Pathology.

ARTHUR F. PILLSBURY, Engr., Assistant Professor of Irrigation.

JACOB B. BIALE, Ph.D., Instructor in Subtropical Horticulture.

RICHARD M. BOHART, Ph.D., Instructor in Entomology.

OTIS F. CURTIS, JR., M.S., Instructor in Floriculture.

GUSTAV A. L. MEHLQUIST, Ph.D., Instructor in Floriculture.

ROY J. SMITH, Ph.D., Instructor in Agricultural Economics.

Letters and Science List.—Agricultural Economics 3, 104, Entomology 1, 134, Plant Pathology 120, Soil Science 110. For regulations governing this list see page 68.

Upper Division Courses.—All upper division courses announced by this department presuppose at least junior standing in the College of Agriculture. Juniors and seniors in other colleges may elect such courses in the Department of Agriculture as they are qualified to pursue.

Preparation for the Major in Horticulture.—Horticulture 2 or the equivalent, and the requirements in the Plant Science Curriculum (see pages 87, 88 of this Catalogue, or the PROSPECTUS OF THE COLLEGE OF AGRICULTURE).

The Major in Horticulture.—Twelve units of upper division courses. Inclusion of Horticulture 100, 101, and 102 is recommended for those who plan to specialize in fruit culture.

Preparation for Other Majors in the Plant Science Curriculum.—See the PROSPECTUS OF THE COLLEGE OF AGRICULTURE and consult the appropriate advisers for students in Agriculture.

Laboratory Fees.—Entomology 1, 134, \$2; Plant Pathology 120, 130, \$2; Soil Science 113, \$10; Horticulture 100, \$3; 101, \$2.

AGRICULTURAL ECONOMICS

LOWER DIVISION COURSE

3. Agricultural Background of American Civilization. (2) II.

Mr. Roy J. Smith

The character of American agriculture; its evolution from pioneer life to modern industry; principal types; European background; technology on the farm; population and migration; rural and urban relationships; economic and social problems; agrarian movements and governmental activities.

* In residence second semester only, 1941-42.

UPPER DIVISION COURSES

101A. Principles of Marketing Agricultural Products. (3) I.

Prerequisite: Economics 1A-1B.

Mr. Roy J. Smith

Nature of the problems, types of marketing agencies, principal marketing functions and their combination, marketing costs and margins, price quotations and speculation in farm products. Government in its relation to marketing; consideration of proposals for improvement.

104. Agricultural Economics. (3) I.

Mr. Roy J. Smith

Prerequisite: Economics 1A-1B.

A study of the application of the principles of economics to the problems of agricultural production.

118. Farm Management: Business Organization. (3) II. Mr. Roy J. Smith

The place, purpose and scope of organization; community and farm basis; farm enterprise; selecting farms; planning and equipping; capital needs; earnings.

ENTOMOLOGY

LOWER DIVISION COURSE

1. General Entomology. (4) II.

Mr. Bohart

Lectures, three hours; laboratory, three hours. Fee, \$2.

Recommended: Zoölogy 1A.

A general course designed to provide the student with a well-rounded knowledge of entomology, including the fundamental facts and principles of insect life and control.

UPPER DIVISION COURSES

134. Insects Affecting Subtropical Fruit Plants. (4) II.

Mr. Ralph H. Smith

Lectures, two hours; laboratory, six hours. Fee, \$2.

Recommended: Zoölogy 1A; Entomology 1 or 124 (Berkeley or Davis).

Specialized study of the biology, damage caused by, and control of the more important insects affecting citrus and other subtropical fruit plants.

199A-199B. Special Study for Advanced Undergraduates. (2-4; 2-4) Yr.

Mr. Ralph H. Smith, Mr. Bohart

Prerequisite: senior standing and the consent of the instructor.

HORTICULTURE

LOWER DIVISION COURSES

2. Elements of Fruit Production. (3) I.

Mr. Hodgson

Lectures, three hours.

Prerequisite: Botany 1A-1B or equivalent.

This course is equivalent to Pomology 2A, given at Berkeley and at Davis.

The principles and practices of fruit growing, with special reference to subtropical regions. The climatic, soil, and moisture requirements and adaptations of fruit trees; selection of site, propagation, planting, orchard management practices, harvesting, and preparation for market. Survey of the industry in the United States.

10. Plant Propagation. (2) II.

Mr. Cameron

Laboratory, six hours.

Prerequisite: Botany 1A-1B and course 2, or the equivalent.

The principles of plant propagation, with special reference to horticultural plants.

UPPER DIVISION COURSES

- 100. Systematic Pomology. (4) I.** Mr. Halma
Lectures, two hours; laboratory, six hours. Fee, \$3.
Prerequisite: course 2, or the equivalent.
The botanical classification and relationships of the principal fruits; horticultural races and groups; growth and bearing habits; bud and fruit morphology; varietal characters.
- 101. Citriculture. (4) II.** Mr. Hodgson
Lectures, three hours; laboratory, three hours; four Saturday field trips. Fee, \$2.
Prerequisite: Chemistry 1A-1B, course 2 or the equivalent.
The characteristics of the citrus fruits and their responses to environmental influences and cultural practices; the economics of the citrus fruit industry.
- *102. Major Subtropical Fruits Other Than Citrus. (3) I.** Mr. Hodgson, Mr. Halma
Lectures, three hours; three Saturday field trips.
Prerequisite: course 2 or the equivalent.
A survey of the knowledge concerning the requirements and responses of the major subtropical fruit plants other than *Citrus*; the economics of their industries. The fruits considered will include the walnut, pecan, almond, fig, olive, avocado, date, and oriental persimmon.
- 104. Advanced Horticulture. (3) II.** Mr. Cameron
Lectures and discussions, three hours.
Prerequisite: course 2 or the equivalent, Botany 7 or the equivalent, course 100, and course 102.
An analysis of the knowledge concerning the responses of fruit trees to environmental and cultural influences, with special reference to subtropical regions.
- 107. Minor Subtropicals and Hardy Tropicals. (2) I.** Mr. Hodgson
Lectures, two hours; one Saturday field exercise.
Prerequisite: course 2 or the equivalent; course 100 recommended.
A survey of the knowledge concerning the requirements and responses of the minor subtropical fruit plants and the hardy tropicals. The fruits considered will include the pomegranate, tuna or prickly pear, passion fruit or granadilla, loquat, cherimoya, guava, jujube, white sapote, feijoa, pistachio, macadamia, carob, litchi, mango, and papaya.
- 112. Fruit Physiology and Storage Problems. (2) I.** Mr. Biale
Lectures and discussions, two hours.
Prerequisite: the consent of the instructor.
Ripening processes of fruit on the tree; maturity standards and tests; ripening and respiration as affected by ethylene gas treatment; chemical and physiological changes at low temperatures; cold storage and refrigerated gas storage; rôle of volatile substances; differences in species and varietal responses.
- 199A-199B. Special Study for Advanced Undergraduates. (2-4; 2-4) Yr.** The Staff
Prerequisite: senior standing and the consent of the instructor.

* Not to be given, 1941-42; to be given in 1942-43; offered in alternate years.

GRADUATE COURSES

- 255A-255B. Seminar in Horticulture. (1-1) Yr. Mr. Biale in charge
 281A-281B. Research in Horticulture. (1-6; 1-6) Yr. The Staff

IRRIGATION

UPPER DIVISION COURSES

110. Principles of Irrigation. (4) I. Mr. Huberty
 Lectures, three hours; laboratory, three hours.
 Prerequisite: Physics 2A-2B or the equivalent.
 Irrigation as a factor in agriculture; effect of soil characteristics upon the movement and storage of water; the availability of soil moisture to plant growth; development of the farm irrigation water supply. To fill a need of subtropical horticulture majors, some time is spent on the study of the origin, evolution, characteristics, classification, and conservation of soils.
 199A-199B. Special Study for Advanced Undergraduates. (2-4; 2-4) Yr.
 Mr. Huberty, Mr. Pillsbury
 Prerequisite: senior standing and the consent of the instructor.

PLANT PATHOLOGY

UPPER DIVISION COURSES

120. Plant Diseases. (4) I. Mr. Baker
 Lectures, two hours; laboratory, six hours. Fee, \$2.
 Prerequisite: Botany 1A-1B or the equivalent, and Bacteriology 1.
 A general fundamental course treating of the nature, cause, and control of plant diseases.
 130. Diseases of Subtropical Fruit Plants. (4) I. Mr. Miller
 Lectures, three hours; laboratory, three hours. Fee, \$2.
 Prerequisite: Botany 1A-1B or the equivalent, and Bacteriology 1.
 Course 120 is recommended.
 The pathology of citrus and other subtropical fruit plants. The distribution, economic importance, nature, cause, and control of the principal diseases.
 199A-199B. Special Study for Advanced Undergraduates. (2-4; 2-4) Yr.
 Mr. Miller, Mr. Baker
 Prerequisite: senior standing and the consent of the instructor.

SOIL SCIENCE

UPPER DIVISION COURSES

110. The Soil as a Medium for Plant Growth. (4) II. Mr. Appleman
 Lectures, three hours; one additional period to be arranged.
 Prerequisite: Chemistry 1A-1B, 8.
 Nutritional requirements of plants; studies of the absorption of mineral elements by plants, and related processes; chemical composition of soils; current views of the soil solution and of base exchange; factors determining productivity of soils; soil and plant interrelations.
 113. Soil Chemistry in Relation to Plant Growth. (3) II. Mr. Appleman
 Lecture, one hour; laboratory, six hours. Fee, \$10.
 Prerequisite: Chemistry 1A-1B, 6A; course 110 (may be taken concurrently).
 199A-199B. Special Study for Advanced Undergraduates. (2-4; 2-4) Yr.
 Mr. Huberty, Mr. Appleman
 Prerequisite: senior standing and the consent of the instructor.

ANTHROPOLOGY AND SOCIOLOGY

KNIGHT DUNLAP, Ph.D., Professor of Psychology (Chairman of the Department of Anthropology and Sociology).

RALPH L. BEALS, Ph.D., Assistant Professor of Anthropology.

HARRY HOIJER, Ph.D., Assistant Professor of Anthropology.

CONSTANTINE PANUNZIO, Ph.D., Assistant Professor of Sociology.

LEONARD BLOOM, Ph.D., Assistant Professor of Sociology.

Letters and Science List.—All undergraduate courses in anthropology and sociology are included in the Letters and Science List of Courses. For regulations concerning this list, see page 68.

MAJOR IN ANTHROPOLOGY

Preparation for the Major.—Required: Anthropology 1A–1B and at least 6 units chosen from a list of approved courses. Copies of this list may be obtained from the adviser or from the chairman of the department.

The Major.—Courses 101A–101B, 102, 105, and 6 units chosen from upper division courses in anthropology; and 6 additional units which may be chosen from upper division courses in anthropology or sociology, or from an approved list of related courses in other departments. Copies of this list may be obtained from the adviser or from the chairman of the department.

MAJOR IN SOCIOLOGY

Preparation for the Major.—Required: Economics 1A–1B, Sociology 30A–30B, and in addition a year-course in philosophy or in another social science. Economics 40 is required of all majors in sociology (unless they are prepared to take Economics 142), but it may be taken in either lower or upper division.

The Major.—Twenty-four upper division units, including not less than 18 units in sociology. The remaining 6 units may be selected from courses in sociology or from the following: Anthropology 125, Economics 100A, 106, 107, 150, 152. Certain courses in other departments may also be accepted towards completion of the major if they form part of a connected plan of study approved by the department.

Social Work.—Students interested in social work should familiarize themselves with the requirements of the Department of Social Welfare at Berkeley or consult with their advisers. The major in sociology may be offered in partial satisfaction of the requirements for admission to the Curriculum in Social Welfare at Berkeley, as well as at other institutions, but in addition there are usually a number of specific course requirements which are not satisfied by the major in sociology. See also page 80.

ANTHROPOLOGY**LOWER DIVISION COURSES****1A. General Anthropology. (3) I.****Mr. Beals**

Origin, antiquity, and races of man; physical anthropology; race problems.

1B. General Anthropology. (3) II.**Mr. Hoijer**

Origin and growth of culture. Problems in invention, material culture, social institutions, religion, language.

UPPER DIVISION COURSES

Courses 1A, 1B or the equivalent are prerequisite to all upper division courses, except for majors in economics, geography, history, political science, psychology, or sociology.

101A-101B. World Ethnography. (3-3) Yr. Mr. Beals

A descriptive survey of representative primitive cultures, including backward people of civilized countries.

102. Methods and Theories of Anthropology. (3) II. Mr. Beals

Illustrations from specific problems and from the work of outstanding anthropologists.

103. Culture History. (3) I. Mr. Beals

A general survey of the origin and development of early civilizations of the Old World: Europe, Asia, Africa, Oceania.

***104. Civilizations of Mexico. (3) II.** Mr. Beals

Ancient civilizations and modern peoples; archeology, art, architecture, mode of life, social institutions, and religion.

105. The American Indian. (3) I. Mr. Hoijer

An introductory survey of the Indians of North and South America; origins, languages, civilizations, and history.

125. Primitive Society. (3) I. Mr. Hoijer

A survey of the social institutions of the simpler peoples of the world: marriage and the family, division of labor, totems and clans, social stratification, economic organizations, political institutions, etc.

139. Africa. (3) I. Mr. Hoijer

A survey of the ethnology of Africa south of the Sahara.

147. Oceania. (3) II. Mr. Hoijer

The aboriginal peoples and cultures of Australia, Malaysia, Melanesia, Micronesia, and Polynesia.

151. Archeological Methods. (2) II. Saturdays. Mr. Beals

Open to men only with the consent of the instructor. Enrollment is limited, but if vacancies exist, prerequisites will be waived for students with adequate background in geology, paleontology, or zoölogy. Students must arrange for transportation when necessary and supply part of their own field equipment.

A study of problems and methods of archeology. A large portion of the work will consist of museum visits and supervised participation in the excavation of local archeological sites.

199A-199B. Special Problems in Anthropology. (2-2) Yr.

Mr. Beals in charge

Prerequisite: six units of upper division anthropology, and the consent of the instructor.

RELATED COURSE IN ANOTHER DEPARTMENT

General Philology and Linguistics 170. Introduction to Linguistics. (3) II.

See page 175.

Mr. Hoijer

* Not to be given, 1941-42; probably to be given in 1942-43.

SOCIOLOGY**LOWER DIVISION COURSE****30A-30B. Social Institutions. (3-3) Yr.** Mr. Panunzio in charge

This course or its equivalent is prerequisite for admission to upper division courses in sociology. Students presenting credit for another elementary course in sociology may, by special permission, take 30A-30B for credit also.

The social institutional order; the originating factors, functions and problems of marriage, the family, government, and other institutions.

UPPER DIVISION COURSES

Course 30A-30B or its equivalent is a prerequisite to all upper division courses in sociology except 142.

120. Social Pathology. (3) I, II. Mr. Bloom

Social and societal maladjustment, the agencies and methods of prevention, treatment, and control.

121. Social Processes. (3) I, II. Mr. Panunzio

A theoretical study of group structure and functioning: the processes of contact, interaction, association, and dissociation as they operate among individuals in groups.

142. Marriage and the Family. (3) I. Mr. Bloom

The marriage-family system: development, modern functions, characteristics, and maladjustments.

143. Urban Sociology. (3) II. Mr. Bloom

Urban and rural cultures in their present-day manifestations; salient differing characteristics: their interdependence, interaction, and societal significance.

181. Care of Dependents. (2) I. Mr. Bloom

Prerequisite: course 120.

Poverty as a social and societal maladjustment; proposed agencies and methods of prevention, treatment, and control of various classes of dependents.

182. Crime and Delinquency. (2) II. Mr. Bloom

Prerequisite: course 120.

Forms and causes of juvenile and adult crime; programs and methods of prevention, treatment, and control.

186. Demography. (3) I. Mr. Panunzio

Prerequisite: course 121 and senior standing.

A study of the quantity, migration, concentration, and quality of modern Western people with particular reference to sociological phenomena.

189. Race and Culture. (2) II. Mr. Panunzio

Prerequisite: senior standing.

The contact and interaction of races and cultures in the modern world, with particular reference to social consequences of amalgamation, hybridization, cultural assimilation, conflict, accommodation.

199A-199B. Special Problems in Sociology. (2-2) Yr.

Mr. Panunzio in charge

Prerequisite: six units of upper division sociology taken in the University with at least a B average, and the consent of the instructor.

Contemporary sociological theories and research methods; theoretical or field investigation of a special phenomenon or problem.

ART

- GEORGE JAMES COX, R.C.A., Professor of Art (Chairman of the Department).
 ROBERT S. HILPERT, M.A., Associate Professor of Art Education.
 LOUISE PINKNEY SOOY, Associate Professor of Fine Arts.
 NELLIE HUNTINGTON GERE, Associate Professor of Fine Arts, Emeritus.
 JAMES H. BREADED, JR., M.A., Assistant Professor of Art.
 HELEN CLARK CHANDLER, Assistant Professor of Fine Arts.
 *HELMUT HUNGERLAND, Ph.D., Assistant Professor of Fine Arts.
 BESSIE E. HAZEN, Ed.B., Assistant Professor of Fine Arts, Emeritus.
 LAURA F. ANDRESON, M.A., Instructor in Fine Arts.
 ANNITA DELANO, Associate in Fine Arts.
 CLARA BARTRAM HUMPHREYS, M.A., Associate in Fine Arts.
 ANNIE C. B. MCPHAIL, Ed.B., Associate in Fine Arts.
 BELLE H. WHITICE, Associate in Fine Arts.
 GERTRUDE WICKES, M.A., Associate in Art.
 IDA ABRAMOVITCH, Ed.B., Assistant in Art.
 WILLIAM F. BOWNE, Ed.B., Assistant in Art.
 DOREEN BAVERSTOCK DE WITT, A.B., Assistant in Art.
 ROBERT TYLER LEE, Assistant in Art and Assistant in Dance.
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- ARTHUR M. JOHNSON, Ph.D., Associate Professor of Botany.
 NATALIE WHITE, M.A., Supervisor of Training, Art.

The College of Applied Arts

Preparation for the Major. Courses 1A-1B, 2A-2B, 4A-4B, 14A-14B, 32A-32B, and four units chosen from the following: 15, 21, 22, 48.

The Major. Thirty-six units of coördinated upper division courses which may be taken in one of five specified curricula:

(1) *Curriculum in Appreciation and History.*

Courses 101A-101B, 121A-121B, 131A-131B, 144A-144B, 151A-151B, 161A-161B, 174A-174B; and eight units to be approved by the departmental adviser.

(2) *Curriculum in Painting or Commercial Art.*

Courses 121A-121B, 134A-134B, 135, 144A-144B, 164A-164B, 165A, 174A-174B; and twelve units to be approved by the departmental adviser selected from 101B, 131A-131B, 161A-161B, 165B, 182A-182B, 183A-183B, 199A-199B.

(3) *Curriculum in Industrial Design.*

Courses 101A, 117A-117B, 121A-121B, 127A-127B, 132A-132B, 147A-147B, 156A, 177; and ten units to be approved by the departmental adviser.

* Absent on leave, 1941-42.

(4) Curriculum in Interior Decoration and Costume Design.

Courses 101A-101B, 121A-121B, 156A-156B, 173, 183A-183B, 186A-186B; and fourteen units to be approved by the departmental adviser, selected from 117A, 127A, 132A-132B, 147A, 164A-164B, 174A-174B; Home Economics 108, 164A, 175; Business Administration 180, 186; Mechanic Arts 101.

(5) Curriculum in Teaching of Art.

Courses 117A, 121A-121B, 127A, 132A, 147A 156A, 165A, 168A, 173, 180; and fourteen units to be approved by the departmental adviser.

The College of Letters and Science

Programs for the General Major.—Two programs are offered in partial satisfaction of the requirements for the general major:

(A) *History and Appreciation of Art*; lower division preparation, courses 1A-1B, 2A-2B, 32B; the major, 12 to 15 units chosen from courses 101A-101B, 121A-121B, 131A-131B, 151A-151B, 161A-161B.

(B) *Painting*; lower division preparation, courses 2A, 4A-4B, 14A, 32B; the major, 12 to 15 units chosen from courses 134A-134B, 144A-144B, 164A-164B, 174A-174B.

Letters and Science List.—Courses 1A-1B, 2A, 2B, 4A, 4B, 21, 24A-24B, 32A-32B, 42, 121A-121B, 131A, 131B, 134A-134B, 144A-144B, 151A-151B, 161A-161B, 164A-164B, and 174A-174B are included in the Letters and Science List of Courses. For regulations governing this list, see page 68. A major in art is not offered in the College of Letters and Science.

The Graduate Division

Requirements for the Master's Degree.—For the general requirements, see page 107. The Department of Art follows either Plan I, 20 units of graduate work and a thesis, or Plan II, 24 units of graduate work (including 4 units of an advanced project in the laboratory field as approved by the department) and a comprehensive examination.

Laboratory Fees.—Courses 117A, 117B, 147A, 182A, 182B, 330, \$2; 164A, 164B, \$4.

LOWER DIVISION COURSES

1A-1B. Art and Civilization (2-2) Yr.

Mr. Cox

The origin and function of the arts and their practical relation to contemporary civilization.

2A. Art Structure. (2) I, II.

Miss McPhail

Fundamental course in creative design and color theory.

2B. Art Structure. (2) I, II.

Miss McPhail, Miss Andreson

Prerequisite: course 2A.

Basic study of the elements of art as related to two-dimensional decorative design, applicable to industrial techniques and processes.

4A. Drawing. (2) I, II.

Mr. Bowne

The application of free and mechanical perspective to the problems of drawing and industrial design.

- 4B. Drawing.** (2) I, II. Mr. Bowne, Mrs. Abramovitch
Prerequisite: course 4A.
Objective drawing of natural forms from observation and memory.
- 14A. Water-color Painting.** (2) I. Mrs. Abramovitch
Prerequisite: courses 1A, 2A, 2B, 4A, 4B.
Still life; the study of water-color techniques; observation of color as related to form, light, and space.
- 14B. Water-color Painting.** (2) II. Miss Chandler
Prerequisite: course 14A.
Development of techniques as related to industrial design, costume, and interior decoration.
- 15. Lettering.** (2) I, II. Mr. Kingrey
Prerequisite: courses 1A, 2B.
The design of lettering; composition using type forms; simple problems in layout.
- 21. Costume and House Furnishing.** (2) I, II. Mrs. Sooy and the Staff
Lectures and demonstrations.
Appreciative study of modern dress and modern house furnishing.
- 22. Design in Three Dimensions.** (2) I, II. Miss Andreson
Prerequisite: courses 1A, 2A, 2B.
The fundamental processes of the major crafts; principles of design as related to three-dimensional form; experiments in the use of plastic materials in abstract composition.
- 24A-24B. Introduction to Scientific Illustrating.** (3-3) Yr. Mr. Johnson
Lectures, two hours; laboratory, three hours.
Prerequisite: the consent of the instructor.
Illustration with particular reference to the life sciences; emphasis upon the various techniques in use, and upon the relation of biological forms to design in art.
- 32A-32B. Design in Painting.** (2-2) Beginning either semester.
Prerequisite: courses 1A, 2B, 4B. Miss Delano, Mr. Bowne
The development of the ability to compose imaginatively with line, space, and color.
- 42. Introduction to Art.** (3) I, II. Mrs. Humphreys, Mr. Hilpert
Not open to students whose major is art.
An exploratory course to develop an understanding and appreciation of art as an aspect of all activities of daily life.
- 48. Art of the Theater.** (2) I, II. Mrs. De Witt
The visual art of the theater; use of materials and equipment of the modern stage.

UPPER DIVISION COURSES

- 101A. History of Furniture.** (2) I. Mrs. Sooy
The history of furniture from ancient to modern times.
- 101B. History of Costume.** (2) II. Mrs. Sooy
The history of costume from ancient to modern times.

- 117A-117B. Ceramics. (2-2) Yr.** Miss Andreson
 Fee, \$2 a semester.
 Prerequisite: course 22.
 Pottery, related to art and industry.
- 121A-121B. Survey of the History of Art. (2-2) Yr.** Mr. Breasted
 Prerequisite: course 1A.
 A critical study of important phases in the development of Western art after 1500.
- 127A-127B. Bookbinding. (2-2) Yr.** Miss Whitice
 Practical work in bookbinding, using various types of book construction and binding materials.
- 131A. Art Epochs: Gothic and Renaissance. (2) I.** Mr. Breasted
- 131B. Art Epochs: Romantic and Modern. (2) II.** Mr. Breasted
- 132A-132B. Design in Industry. (2-2) Yr.** Miss Delano
 Prerequisite: course 22.
 Study of materials, processes and functions of the art industries, leading to original design.
- 134A-134B. Landscape Painting. (2-2) Yr.** Miss Delano
 The development of personal vision and individual expression as applied to landscape painting. Survey of modern and traditional schools.
- 135. Book Illustration. (2) II.** Miss Chandler
 Prerequisite: courses 144A, 164A.
 Pen and ink, wood engraving, and color.
- 144A-144B. Oil Painting. (2-2) Yr.** Miss Chandler
 Prerequisite: course 14A.
 The techniques of oil painting; development of perception and understanding of the essential qualities of form, light, color, and their integration in painting.
- 147A. Weaving. (2) I.** Miss Whitice
 Fee, \$2.
 Prerequisite: course 22.
 History and development of weaving; experience with techniques and processes.
- 147B. Weaving. (2) II.** Miss Whitice
 Prerequisite: course 147A.
 A continuation of course 147A.
- *151A-151B. The Art of Latin America. (2-2) Yr.** _____
- 156A. Interior Decoration. (2) I, II.** Miss Wickes
 Lectures, laboratory, and demonstrations.
 Prerequisite: course 21.
 The consideration of the home as a unit; the arrangement of garden, house, floor plan, and furniture as functional and decorative problems.
- 156B. Interior Decoration. (2) II.** Miss Wickes
 Prerequisite: course 156A.
 The study of the historical periods in relation to interior decoration; adaptation and original design.

* Not to be given, 1941-42.

- 161A-161B. Oriental Art.** (2-2) Yr. Mr. Breasted
Prerequisite: course 1A and the consent of the instructor.
Selected problems from phases of Oriental art.
- 164A-164B. Life Drawing.** (2-2) Yr. Mr. Cox
Fee, \$4 a semester.
Objective drawing and expressive interpretation of the human figure; its use in original composition.
- 165A. Advertising Illustration.** (2) I. Mr. Kingrey
Prerequisite: courses 15, 32B.
Design for advertising; emphasis upon type forms and composition; posters, booklets, layouts, etc.
- 165B. Advertising Illustration.** (2) II. Mr. Kingrey
Prerequisite: course 165A.
Psychological factors in design and their relationship to merchandising.
- 168A. Design for Theater Productions.** (2) I, II. Mr. Lee
Prerequisite: course 48.
The use of form, space, and color in the theater terms, and the employment of historical material.
- 168B. Supervision of Theater Productions.** (2) I, II. Mr. Lee
Prerequisite: course 168A.
A practical course in supervision and organization with experience in design and execution of actual productions.
- 173. Costume of the Theater.** (2) I. Mrs. Sooy
The decorative, historical, and psychological aspects of creative costume.
- 174A-174B. Painting: Mediums and Techniques.** (2-2) Yr. Miss Chandler
Prerequisite: senior standing.
Further experience in coordinating all the factors entering into a painting, and a technical study of methods and materials.
- *177. Metal Craft.** (2) II. Miss Whitice
Prerequisite: course 132A.
Original work in copper, brass, and silver.
- 180. Theory and Philosophy of Art Education.** (2) II. Mrs. Sooy
Economic and social significance of aesthetic development. A comparative study of existing theories and practices.
- 182A-182B. Design in Sculpture.** (2-2) Yr. Mr. Cox
Fee, \$2 a semester.
Prerequisite: courses 22, 164A-164B.
Problems in creative expression; modelling of figures in terra cotta; portraiture.
- 183A-183B. Modern Costume.** (2-2) Yr. Mrs. Sooy
Prerequisite: course 21.
- 186A. Advanced Interior Decoration.** (2) I. Miss Wickes
Prerequisite: course 156B.
The study of color harmonies and form arrangements; the influence of fashion in interior decoration.

* Not to be given, 1941-42.

186B. Advanced Interior Decoration. (2) II.**Miss Wickes**

Prerequisite: course 186A.

The technique of interior decoration; shop practice through actual problems in interior design in stores and homes.

199A-199B. Special Studies for Advanced Students. (2-2) Yr.**Mr. Cox, Mrs. Sooy, Miss Chandler, Mr. Hilpert**

Prerequisite: senior standing, an average grade of B or higher in courses in art, and the consent of the instructor.

Advanced individual work upon specific problems connected with art and education.

GRADUATE COURSES**260A-260B. Seminar in Contemporary Art. (2-2) Yr.****Mr. Cox and the Staff**
A consideration of the social, economic, psychological, and philosophical (ethical and religious) influences shaping contemporary art.**271A-271B. Advanced History of Art: Seminar. (2-2) Yr. Mr. Breasted****299A-299B. Special Studies for Advanced Students. (1-6; 1-6) Yr.****Mr. Cox, Mrs. Sooy, Miss Chandler, Mr. Hilpert****PROFESSIONAL COURSES IN METHOD****330. Art Handicraft Education. (3) I, II.****Miss White, Miss Whitice**

Fee, \$2.

370A. Principles of Art Education. (2) I, II.**Mr. Hilpert**

A study of objectives, child growth and development; general educational principles as related to art education.

370B. Principles of Art Education. (2) I, II.**Mrs. Humphreys**

A study of method and the curriculum in art education.

ASTRONOMY

FREDERICK C. LEONARD, Ph.D., Associate Professor of Astronomy (Chairman of the Department).

SAMUEL HERRICK, JR., Ph.D., Instructor in Astronomy.

JOSEPH KAPLAN, Ph.D., Professor of Physics.

Letters and Science List.—All undergraduate courses in astronomy are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

Preparation for the Major.—Required: general astronomy (Astronomy 7A-7B); general physics (Physics 1A-1B-1C-1D or, in exceptional cases, Physics 2A-2B); plane trigonometry, plane analytic geometry, and differential and integral calculus (Mathematics C, 3A, 3B, and 4A). Recommended: first-year English (English 1A-1B), and a reading knowledge of French or German.

The Major.—At least 18 upper division units of astronomy, of which 15 must be chosen from courses 102, 105, 107, 115, and 117A-117B, and as many more upper division units as are required to total 24, chosen from courses in astronomy, physics, or mathematics, according to some definite plan approved by the Department of Astronomy.

LOWER DIVISION COURSES

There are two courses in general elementary astronomy, namely, a semester course, Astronomy 1, without prerequisites, and a year course, Astronomy 7A-7B, with prerequisites in physics and mathematics. Students, particularly those majoring, or intending to major, in mathematics or a physical science, who have the prerequisites for Astronomy 7A-7B, are advised to take that course rather than Astronomy 1, which is not open to students who have had Astronomy 7A-7B.

1. **Elementary Astronomy.** (3) I, II. Mr. Leonard, Mr. Herrick
Lectures, three hours; discussion section, one hour.

The general principles and the fundamental facts of astronomy, with particular emphasis on the solar system.

2. **Practice in Observing.** (1) I. Mr. Leonard, Mr. Herrick
Prerequisite: course 1, and plane trigonometry, or credit or registration in course 7A or 7B.

Practical work for beginners, including constellation studies, telescopic observations of celestial objects, laboratory exercises cognate to the material of courses 1 and 7A-7B, and regularly scheduled excursions to the neighboring observatories and planetarium.

3. **Practical Astronomy for Engineering Students.** (1) II. Mr. Herrick
An observing period, 7:15-10 p.m., will be substituted occasionally for the regular class period.

Prerequisite: Civil Engineering 1FA and credit or registration in Civil Engineering 1FB.

A course for students of civil engineering; the principles of practical astronomy and spherical trigonometry as they relate to the needs of such students; solution of the fundamental problems of practical astronomy; use of the *Almanac*; and computing.

7A-7B. General Astronomy. (3-3) Yr.**Mr. Leonard**

Prerequisite or concurrent: A college course in physics and Mathematics 3A.

The general principles and the fundamental facts of astronomy in all of its branches, with special emphasis on the solar system, developed and discussed in detail. This course is designed especially for students majoring, or intending to major, in mathematics or a physical science, and is required of those preparing to major in astronomy. Course 7B may be taken before 7A with the consent of the instructor.

Course 2 may be elected for observational work in connection with this course.

UPPER DIVISION COURSES

Lower division courses in astronomy are not prerequisite to upper division courses unless specified.

100. The Historical Development of Astronomy. (3) I.**Mr. Herrick**

Prerequisite: course 1 or a college course in physics.

Astronomical and related science: its historical development, utilization of the scientific method, and effect upon the thought of certain periods. This course is designed especially for students whose major subject is philosophy or a social science.

102. Stellar Astronomy. (3) I.**Mr. Leonard**

Prerequisite: course 7A-7B or 117A.

A general review of stellar astronomy, with special emphasis on the results of modern researches.

105. Spherical Astronomy. (3) II.**Mr. Leonard, Mr. Herrick**

Prerequisite: course 2, 3, or 7A, and Mathematics 3B.

Spherical trigonometry and its applications to astronomy; the fundamentals of spherical astronomy, including such subjects as the celestial sphere and its systems of coördinates, time, and the correction of observations; the use of star maps, star catalogues, and almanacs.

107. The Reduction of Observations. (3) I.**Mr. Leonard, Mr. Herrick**

Prerequisite: Mathematics 3B-4A.

Analytical, arithmetical, and graphical methods employed in the handling of numerical and observational data, including the theory of errors and least squares and its application to the solution of astronomical, physical, chemical, and engineering problems.

108. Interpolation. (3) II.*Mr. Herrick**

Prerequisite: Mathematics 3B-4A.

The more serviceable formulae of interpolation and their application in the use of astronomical, physical, chemical, and engineering tables; development of the formulae of numerical differentiation and integration and their employment in the construction of tables; practice in making extensive calculations, with special aim at accuracy and speed.

115. The Determination of Orbits. (3) II.**Mr. Herrick**

Prerequisite: Mathematics 3B-4A.

The theory and calculation of the orbits and ephemerides of comets and minor planets.

* Not to be given, 1941-42.

117A-117B. Astrophysics. (3-3) Yr.**Mr. Kaplan**

A laboratory period will occasionally be substituted, by appointment, for one of the regular class periods.

Open to students whose major subject is some physical science or mathematics.

A general review of spectroscopy and astronomical physics, with special emphasis on the solar system during the first semester. This course is acceptable in partial fulfillment of the requirements of the major in physics; 117A is a requirement of the major in meteorology.

118. Meteoritics. (3) II.**Mr. Leonard**

Open to students whose major subject is some physical science, particularly astronomy, geology, or chemistry.

The science of meteorites and meteors.

199. Special Studies in Astronomy or Astrophysics. (1 to 3) I, II.**The Staff (Mr. Leonard in charge)**

Prerequisite: the consent of the instructor.

Investigation of special problems or presentation of selected topics chosen in accordance with the preparation and the requirements of the individual student. Astronomy 199, Sec. 2, "Special Studies in Astrophysics," is acceptable in partial fulfillment of the requirements of the major in physics.

BACTERIOLOGY

THEODORE D. BECKWITH, Ph.D., Professor of Bacteriology (Chairman of the Department).

ANTHONY J. SALLE, Ph.D., Associate Professor of Bacteriology.

ELINOR LEE BEEBE, R.N., Ph.D., Assistant Professor of Public Health Nursing.

† CLAUDE E. ZOBELL, Ph.D., Assistant Professor of Marine Microbiology.

MERIDIAN RUTH BALL, Sc.D., Instructor in Bacteriology.

HELEN M. CROCKETT, M.S.S., Lecturer in Medical Social Case Work.

ORREN LLOYD-JONES, M.D., Lecturer in Public Health Nursing.

———, Field Supervisor and Assistant in Public Health Nursing.

CHARLES R. SCHRODER, D.V.M., Research Associate in Bacteriology.

Letters and Science List.—All undergraduate courses in bacteriology and public health are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

Preparation for the Major.—Bacteriology 1, Chemistry 1A–1B, Zoölogy 1A–1B, Botany 1A or 1B, Physics 2A–2B, French or German. Recommended: Chemistry 6A, 8, 9; Zoölogy 4.

The Major.—Bacteriology 103 (4 units), 199A (2 units); either 199B (2 units) or 195 (2 units) or 105 (4 units); also 16 units of upper division work in related subjects, these to be selected from the following series: Bacteriology 104, 105, 106; Public Health 101A, 101B; Botany 105A, 119, 126, 191A, 191B; Zoölogy 101, 105, 106, 107, 107C, 111, 111C, 118; Chemistry 107A, 107B, 109A, 109B; Home Economics 159; Soil Science 110. Courses are to be chosen with the approval of the department.

Curriculum for Medical Technicians.—For details, see the ANNOUNCEMENT OF THE COLLEGE OF LETTERS AND SCIENCE, LOS ANGELES.

Curricula in Pre-Nursing and in Public Health Nursing.—For details, see the ANNOUNCEMENT OF THE COLLEGE OF APPLIED ARTS.

Laboratory Fees.—Course 1, \$12.50; 103, \$15; 105, \$10; 199A, 199B, \$8; Public Health Nursing 402, \$20

LOWER DIVISION COURSES

1. Fundamental Bacteriology. (4) I, II.

Mrs. Ball, Mr. Salle

Fee, \$12.50.

Prerequisite: Chemistry 1A.

Early history of bacteriology; effects of physical and chemical agencies upon bacteria; biochemical activities of bacteria; the bacteriology of the air, water, soil, milk and dairy products, other foods; industrial applications. The laboratory exercises include an introduction to bacteriological technique.

Students who have credit for course 6 will receive only three units for course 1.

† Member of the staff of the Scripps Institution of Oceanography, La Jolla.

6. General Bacteriology. (2) II.

Mr. Beckwith

A cultural course for nontechnical students.

Students who have credit for course 1 will receive only one unit for course 6.

UPPER DIVISION COURSES**103. Advanced Bacteriology. (4) I.**

Mr. Beckwith

Fee, \$15.

Prerequisite: course 1.

The more advanced principles of the life activities, growth, and morphology of bacteria. The etiology of disease.

104. Soil Bacteriology. (2) II.

Mr. ZoBell

Prerequisite: course 1.

The microscopic flora of soil: the morphology, function, and metabolism of soil bacteria.

105. Serology. (4) II.

Mrs. Ball

Fee, \$10.

Prerequisite: course 103.

A lecture and laboratory course dealing with the theory and practice of serological methods. Limited to twelve students.

106. Metabolism of Bacteria. (2) I.

Mr. Salle

Prerequisite: course 1 and Chemistry 8.

Chemical composition of bacteria; influence of physicochemical conditions on growth; bacterial processes and enzymatic mechanisms. This course consists of lectures and discussions.

195. Proseminar. (2) I, II.

Mr. Beckwith

Prerequisite: course 103.

Library problems.

199A-199B. Problems in Bacteriology. (2-2) Yr.

Fee, \$8 a semester.

Mr. Beckwith, Mr. Salle, Mrs. Ball

Prerequisite: the consent of the instructor.

MICROBIOLOGY**GRADUATE COURSES****210. Advanced Bacterial Physiology. (8) II.**

Mr. Salle

Prerequisite: Bacteriology 106.

Physiological activities of microorganisms in the light of more advanced principles.

251A-251B. Seminar in Microbiology. (2-2) Yr.

Mr. Beckwith, Mr. Ball, Mr. Plunkett

293A-293B. Research in Microbiology. (2-5; 2-5) Yr.

Mr. Beckwith, Mr. Ball, Mr. Plunkett

PUBLIC HEALTH**UPPER DIVISION COURSES****101A. Public Health and Preventive Medicine. (3) I.**

Mr. Lloyd-Jones

Prerequisite: Bacteriology 1 or Zoölogy 1A; or, for students in the Public Health Nursing Curriculum, the consent of the instructor.

Beginnings and backgrounds of medicine. Nature of infection and immunity. Discussion of the most important communicable diseases with special emphasis on their control and prevention.

101B. Public Health and Preventive Medicine. (3) II. Mr. Lloyd-Jones
Prerequisite: Bacteriology 1 or Zoölogy 1A; or, for students in the Public Health Nursing Curriculum, the consent of the instructor.

Development, organization and administration of public health; social trends of medicine; collection and interpretation of vital statistics; environmental sanitation; principles of epidemiology with some special control programs such as tuberculosis, venereal disease, mental hygiene, degenerative diseases.

PUBLIC HEALTH NURSING

PROFESSIONAL COURSES

402. Family Case Work as Related to Public Health Nursing. (2) II.

Class work, field and observation study.

Miss Crockett

This course is planned to familiarize the public health nurse with the processes of social case work as carried on by social agencies, the approach to problems of family and community relationship, and the application of social case work methods in the public health nursing field.

418. Principles and Practice in Public Health Nursing. (3) I. Miss Beebe

A general view of public health nursing as illustrated by its present scope and methods. A study of the objectives of public health nursing, applied to all phases of the services, including maternity, infancy, preschool, school, and industrial.

419. Administration and Organization of Public Health Nursing. (3) II.

Miss Beebe

The history and development of public health nursing to meet individual, family, and community health needs. The policies and trends in the organization of national, state, local, municipal, and rural public health nursing services; application of these policies to official and nonofficial agencies.

420. Field Experience in Public Health Nursing. (6) I, II.

Not offered in the summer.

Miss Beebe, ———

Fee, \$20.

Prerequisite: completion of the academic program for the Public Health Nursing Certificate.

Sixteen weeks of continuous supervised field assignment with designated affiliating agencies of the Los Angeles vicinity. Students carry no outside work or other study during the field program. This period does not affect the residence requirement.

BOTANY

OLENUS L. SPONSLER, Ph.D., Professor of Botany (Chairman of the Department).

CARL C. EPLING, Ph.D., Associate Professor of Botany and Curator of the Herbarium.

ARTHUR W. HAUPT, Ph.D., Associate Professor of Botany.

ARTHUR M. JOHNSON, Ph.D., Associate Professor of Botany and Director of the Botanical Garden.

ORDA A. PLUNKETT, Ph.D., Assistant Professor of Botany.

FLORA MURRAY SCOTT, Ph.D., Assistant Professor of Botany.

Letters and Science List.—All undergraduate courses in this department are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

Preparation for the Major.—Botany 1A-1B, 6 and 7, Chemistry 1A-1B or 2A-2B, German 1, 2. In addition to these courses, certain phases of botanical work require Geology 3, 5, Physics 2A-2B, Bacteriology 1, and Zoölogy 1A.

The Major.—Seventeen units of upper division botany, including courses 105A-105B and 106A-106B; and in addition, seven units in botany or related courses—bacteriology, chemistry, geology, paleontology, and zoölogy—to be chosen with the approval of the department.

Laboratory Fees.—Course 7, \$3; 6, 111, 113, 120, \$2.

LOWER DIVISION COURSES

1A. General Botany. (4) I, II.

Mr. Haupt, Miss Scott

Lectures, two hours; laboratory, four hours.

An introduction to the structure, functions, and environmental relations of the seed plants.

1B. General Botany. (4) II.

Mr. Haupt, Miss Scott, Mr. Plunkett

Lectures, two hours; laboratory, four hours.

Prerequisite: course 1A.

The evolution of the plant kingdom, dealing with the comparative morphology of all the great plant groups.

6. Plant Anatomy. (3) I.

Miss Scott

Lecture, one hour; laboratory, six hours. Fee, \$2.

The microscopic structure of the higher plants with particular reference to the development and differentiation of vegetative tissues.

7. Plant Physiology. (4) II.

Mr. Sponsler

Lecture, two hours; laboratory, six hours. Fee, \$3.

Prerequisite: course 6, and chemistry.

Experimental work designed to demonstrate various activities of the plant.

9. Anatomy of Flowers and Fruits. (3) II.

Mr. Johnson

Lecture, one hour; laboratory, six hours.

36. Forest Botany. (3) I.

Mr. Johnson

Lecture, one hour; laboratory, six hours, or equivalent field work.

Identification and distribution of the dominant woody species of California. For forestry majors and others interested in conservation, flood control, and soil erosion.

UPPER DIVISION COURSES

Botany 1A, 1B are prerequisite to all upper division courses.

- 103. Botany of Economic Plants. (2) I.** Mr. Johnson
Designed for students of economics, geography, agriculture, and botany. The general morphology, classification, ecology and geographic distribution, origin, and uses of economic plants.
- 105A. Algae and Bryophytes. (4) I.** Mr. Haupt, Mr. Plunkett
Lectures, two hours; laboratory, six hours.
A study of the structure, development, and phylogenetic relationships of the principal orders of fresh water and marine algae, and of liverworts and mosses.
- 105B. Morphology of Vascular Plants. (4) II.** Mr. Haupt
Lectures, two hours; laboratory, six hours.
Structure, development, and phylogenetic relationships of the principal groups of pteridophytes and spermatophytes.
- 106A-106B. Angiosperms. (3-3) Yr.** Mr. Epling
Lecture, one hour; laboratory, six hours, and additional field work to be arranged.
A survey of the chief orders and families of the flowering plants involving a study of their gross structure, phylogenetic classification, and geographical distribution. Designed for botany majors, teachers of nature study, and students in the College of Agriculture.
- *111. Plant Cytology. (3) I.** Mr. Haupt
Lecture, one hour; laboratory, six hours. Fee, \$2.
Prerequisite: courses 6, and 105A or 105B.
Structure and physiology of the cell.
- 113. Physiological Plant Anatomy. (3) II.** Miss Scott
Lecture, one hour; laboratory, six hours. Fee, \$2.
Prerequisite: courses 6 and 7.
A study of the tissues of the higher plants in relation to function; a survey of the visible structural and reserve materials of the plant body.
- 119. Mycology. (3) I.** Mr. Plunkett
Lecture, one hour; laboratory, six hours.
Structure, development, and classifications of the important genera and species of fungi. For students in botany, bacteriology, agriculture, and forestry.
- 120. Phytopathology. (3) II.** Mr. Plunkett
Lecture, one hour; laboratory, six hours. Fee, \$2.
Prerequisite: course 119.
A study of bacterial and fungous diseases of plants.
- 126. Medical Mycology. (3) II.** Mr. Plunkett
Lecture, one hour; laboratory, six hours.
Prerequisite: course 119 and Bacteriology 1.
An introduction to the morphology, physiology, and taxonomy of the fungi which cause diseases in man and the domestic animals. This course is designed for students in bacteriology, parasitology, and medicine; it is limited to ten students.

* Not to be given, 1941-42.

- 151. History of Botany. (2) II.** Mr. Johnson
Prerequisite: senior standing; limited to students with major in botany.
- 152. Ecological Phytogeography. (3) II.** Mr. Johnson
Lecture, two hours; laboratory and field, three hours.
Prerequisite: course 106A-106B.
Field and laboratory studies of plant communities and their relation to the environment.
- 153A-153B. Advanced Systematic Botany. (2-2) Yr.** Mr. Epling
A systematic survey of the flowering plants by a comparison of the two principal schemes of relationship; origin of the group and concept of speciation.
- 190. Research Methods in Morphology. (2) I.** Mr. Haupt
Laboratory and conferences.
For students of senior and graduate standing.
- 191A-191B. Molecular Structure of Biological Materials. (2-2) Yr.** Mr. Sponsler
Prerequisite: senior standing, or the consent of the instructor; Physics 2A-2B, Chemistry 8, and Botany 1A-1B or Zoölogy 1A-1B, and in addition advanced courses in biological fields.
An adaptation of our knowledge of atomic and molecular structure to our biological conceptions of protoplasm and cell parts.
- 199A-199B. Problems in Botany. (2-2) Yr.**
Prerequisite: senior standing. The Staff (Mr. Sponsler in charge)

GRADUATE COURSES

- 252A-252B. Seminar in Principles and Theories of Botany. (2-2) Yr.** Mr. Sponsler
- 253A-253B. Seminar in Special Fields of Botany. (1-1) Yr.** The Staff
- 253C-253D. Second Seminar in Special Fields of Botany. (1-1) Yr.** The Staff
- 278A-278B. Research in Botany. (2-6; 2-6) Yr.** The Staff

RELATED COURSE IN ANOTHER DEPARTMENT

- Art 24A-24B. Introduction to Scientific Illustrating. (3-3) Yr.** Mr. Johnson

BUSINESS ADMINISTRATION

HOWARD SCOTT NOBLE, M.B.A., C.P.A., Professor of Accounting (Chairman of the Department of Business Administration).

FLOYD F. BURTCHETT, Ph.D., Associate Professor of Banking and Finance.

RALPH CASSADY, JR., Ph.D., Associate Professor of Marketing.

***IRA N. FRISBEE, M.B.A., C.P.A.**, Associate Professor of Accounting.

***JOHN C. CLENDENIN, Ph.D.**, Assistant Professor of Banking and Finance.

A. GERHARD EGGE, LL.B., Assistant Professor of Business Law.

WILBERT E. KARRENBROCK, Ph.D., Assistant Professor of Accounting.

VERNON D. KEELER, Ph.D., Assistant Professor of Management and Industry.

GEORGE W. ROBBINS, M.B.A., Assistant Professor of Marketing.

SAMUEL J. WANOUS, Ph.D., Assistant Professor of Commercial Practice and Business Education.

WILLIAM F. BROWN, Ph.D., Instructor in Marketing.

———, Instructor in Management and Industry.

HAROLD J. NEHER, M.S., Associate in Accounting.

ESTELLA B. PLOUGH, Associate in Commercial Practice.

HARRY SIMONS, M.A., C.P.A., Lecturer in Accounting.

The College of Business Administration

Preparation for the Major.—Business Administration 1A-1B, Economics 1A-1B, English 1A, Public Speaking 1A, Mathematics 8 and 2, Geography 5A-5B. Other requirements in the lower division will be found on page 84.

The Upper Division.

1. General requirements: (a) in the junior year, courses 18A-18B, 120, 140, 160A, 180, and Economics 135; (b) in the senior year, course 100.

2. Special elective: three units chosen from the following: courses 110, 116, 117, 132 (except for finance majors), 145, 154; Economics 131A-131B, 132, 150, 171, 173.

3. Nine upper division units in one of the following five majors: Accounting, Banking and Finance, Management and Industry, Marketing, General Business. (For courses offered in the various majors, see page 85.)

4. See (e) and (f), page 86, for requirements concerning electives and minimum scholarship standing.

Electives.—All undergraduate courses in the Letters and Science List (see page 68), will be accepted for credit toward the B.S. degree. A maximum of 6 units of electives aside from the preceding will be accepted for credit toward the degree.

The College of Letters and Science

Letters and Science List.—Courses 1A-1B, 131, 140, 145, 153, and 180. For regulations governing this list, see page 68.

* In residence second semester only, 1941-42.

The Graduate Division

Requirements for Admission to Graduate Status.

The general requirements (see paragraph 1 above), or their equivalent, as well as the general University requirements, are prerequisite to admission to graduate status in the Department of Business Administration.

Departmental Requirements for the Master of Science Degree.

1. At least 6 units of the 24 required for the degree must be taken outside the Department of Business Administration.

2. At least 6 units of the 12 units of graduate courses (200 series) required, must be taken outside of the "field of specialization," and divided between at least two other fields.

3. The Department favors the comprehensive examination plan. For further information concerning graduate work consult the ANNOUNCEMENT OF THE GRADUATE DIVISION, SOUTHERN SECTION.

Requirements for Teaching Credentials.

Candidates for the Special Secondary Credential in commerce or for the General Secondary Credential with a major or minor in business education should consult the ANNOUNCEMENT OF THE SCHOOL OF EDUCATION, LOS ANGELES.

Fees.—Business Administration 140, \$3; Commerce A, \$6; Commerce B, \$10; Commerce 16, \$2.50.

LOWER DIVISION COURSES

1A-1B. Principles of Accounting. (3-3) Beginning either semester.

Two hours lecture, and two hours laboratory. Mr. Noble and Staff
Prerequisite: sophomore standing.

2A-2B. Accounting Laboratory. (1-1) Yr.

Mrs. Plough

Should be taken concurrently with course 1A-1B.

18A-18B. Business Law. (3-3) Beginning either semester.

Mr. Eger

Prerequisite: junior standing.

Law in its relationship to business. Essentials of the law of contracts, agency, bailments, sales, negotiable instruments, partnerships, and private corporations.

UPPER DIVISION COURSES

Business Administration 1A-1B and Economics 1A-1B are prerequisite to all upper division courses.

†100. **Theory of Business.** (2) I, II.

Mr. Cassady, Mr. Clendenin, Mr. Burtchett

Prerequisite: senior standing.

Not open for credit to students who have taken or are taking Economics 100A.

Influence of certain fundamental laws in economics upon the practical processes of production, distribution, the price system, profits, and wages. The coordination of business activities under imperfect competition. The nature of social and economic forces which modify and direct business policies.

† Open only to students registered in College of Business Administration and to graduate students who have had the necessary preliminary preparation.

110. Real Estate Principles. (3) II.

Mr. Clendenin

A survey of the business methods, economic problems, and legal background of real estate operation. Topics studied include ownership estates, liens, mortgages, leases, taxes, deeds, escrows, title problems, brokerage, subdivisions, appraisals, and zoning and building ordinances.

Visiting professional and business men give special lectures.

†116. General Laws Relating to Property. (3) I.

Mr. Eger

Prerequisite: course 18A-18B.

Distinctions between real and personal property, types of ownership, methods of acquisition and disposal, separate and community property, title, control and management of community property and liability for debts.

†117. The Law of Wills, Estates, and Trusts. (3) II.

Mr. Eger

Prerequisite: course 18A-18B.

Succession to property by will and in the absence of will; types, requirements, and revocation of wills; legacies and devices; executors and administrators; probate and administration of estates and special rights of surviving spouse and children; nature, kinds, and formation of trusts; relations between trustees and beneficiary and with third persons, and termination of trusts; corpus and income problems affecting life tenants and remaindermen.

120. Business Organization. (3) I, II.

Mr. Cassady, Mr. Keeler

A study of the business unit and its functions from the points of view of both society and management. The coordination of production, finance, marketing, personnel, and accounting in a going business. The relation of the enterprise to the industry in general, to the business cycle, to law and government, and to the public.

†121A. Industrial Management. (3) I.

Mr. Keeler

Prerequisite: course 120.

A study of the evolution and development of the industrial system. The application of scientific management and scientific methodology. A consideration of modern methods of approach to present day production problems.

†121B. Industrial Management. (3) II.

Mr. Keeler

Prerequisite: course 121A.

The work of the second half-year consists of the combination of classroom discussions and field trips. Written reports and class discussions are designed to correlate the theory and practice of modern factory management.

†125. Organization and Management Problems. (3) I.

Prerequisite: senior standing.

A case method study of the practical problems involved in the organization and management of business enterprises. Emphasis is placed upon the correlation of functions and activities in the organization of operating departments.

131. Corporation Finance. (3) I.

Mr. Burchett

Prerequisite: Economics 135.

A study of the financial structures and financial problems of business corporations. The instruments and methods of financing a corporation will be considered in their social, legal, and economic effects as well as in their effects on the corporation and the shareholders.

† Open only to students registered in College of Business Administration and to graduate students who have had the necessary preliminary preparation.

132. Investments. (3) I.

Mr. Burtchett

Prerequisite: Economics 135.

The principles underlying investment analysis and investment policy; the chief characteristics of civil and corporate obligations and stocks. Investment trusts and institutional investors, forms, problems, and policies. Relation of money markets and business cycles to investment practice.

†133. Investment and Financial Analysis. (3) II.

Mr. Clendenin

Prerequisite: course 131 or 132; Economics 135.

Examination of specific securities and projects from an investment point of view; sources of information on investment matters; the writing of investment analysis and reports. Examples of financial practices involved in mergers, reorganizations, recapitalization plans, etc. Reading assignments and class discussions will be devoted mainly to actual recent cases.

†139. Applied Business Finance. (3) II.

Mr. Burtchett

Prerequisite: Economics 135.

An intensive study of the financial operations of business; work of the credit department, the comptroller's or treasurer's office; preparation of financial reports for stockholders and for public authorities; credit analysis; credit bureaus and their services; consumer installment contracts and financing; bank relations in general. This course emphasizes the short-term financial problems and practices of all types of business enterprise.

140. Business Statistics. (4) I, II.

Mr. Brown

Lectures, two hours; laboratory, four hours. Fee, \$3.

Students who have credit for Economics 40 will receive only one unit of credit for this course.

Sources of statistical data; construction of tables, charts, and graphs; study of statistical methods; averages, measures of deviation, index numbers, secular trend, seasonal variation, correlation; study of business cycles; practical application of statistical methods in business problems.

†144. Business and Statistical Research. (2) I.

Prerequisite: senior standing.

The study of the theory of research methodology and the application of specific research techniques to actual business problems. These problems will be made possible by the coöperation of various concerns in southern California.

145. Principles of Insurance. (3) II.

Mr. Clendenin

Description of the major types of insurance: life, property, casualty, etc.; interpretation of the contracts under which such insurance is written; regulation and control of insurance companies; general principles of mortality and premium calculation; basic legal principles of property and equity law as involved in the transfer of risks; distribution system of underwriting; organization of the insurance carrier companies.

153. Personnel Management. (3) I, II.

Mr. Keeler

A study of the administration of human relations in industry; the development of employment relations; problems and methods of selecting and placing personnel; problems and methods of labor maintenance; the joint control of industry; the criteria of effective personnel management.

† Open only to students registered in College of Business Administration and to graduate students who have had the necessary preliminary preparation.

†154. Office Organization and Management. (3) I.**Mr. Wanous**

Analysis of functions of various office departments, their organization and management. Methods used in selecting and training office personnel; office planning and layout; selection and care of office supplies and equipment; methods and devices used to improve operating efficiency; types and uses of office appliances; techniques for performing office duties.

160A. Advanced Accounting. (3) I, II.**Mr. Noble, Mr. Karrenbrock, Mr. Simons**

Adjustments, working papers, statements from incomplete data, cash and receivables, inventories, investments, fixed assets, intangibles and deferred charges, liabilities, capital stock and surplus, installment accounting, correction of errors, statement analysis, and application of funds.

160B. Advanced Accounting. (3) I, II.**Mr. Karrenbrock, Mr. Simons**

Prerequisite: course 160A.

Partnerships, joint ventures, agencies and branches, consolidated balance sheets, consolidated profit and loss statements, statements of affairs, receiverships, realization and liquidation statements, estates and trusts, and actuarial accounting problems.

†161. Cost Accounting. (3) I.**Mr. Karrenbrock**

Prerequisite: course 160A.

Distribution of department store expenses, general factory accounting, process costs, job-lot accounting, foundry accounting, budgets and control of costs, expense distributions, burden analyses, differential costs, by-products and joint-products, and standard costs.

†162. Auditing. (3) II.**Mr. Frisbee**

Prerequisite: courses 160A, 160B.

Accounting investigations, balance sheet audits, and detailed audits performed by public accountants. Valuation, audit procedure, working papers, and audit reports.

†163. Federal Tax Accounting. (3) I.**Mr. Simons**

Prerequisite: courses 160A, 160B.

A study of the current federal revenue acts as relating to income taxation, excess profits taxes, estate taxes, capital stock taxes, and gift taxes.

†165. Municipal and Governmental Accounting. (3) II.**Mr. Karrenbrock**

Prerequisite: course 160A.

A study of fund accounting as applied to governmental accounting and non-profit institutions. It includes problems of budgeting, tax levies, appropriations, and accounting for revenues and expenditures. The following funds are included: general, special revenue, bond, sinking, working capital, special assessment, trust and agency, and utility. Special problems on nonprofit institutions.

180. Elements of Marketing. (3) I, II.**Mr. Robbins, Mr. Cassady**

A survey designed to give a basic understanding of the major marketing methods, institutions, and practices. The problems of retailing, wholesaling, choosing channels of distribution, advertising, cooperative marketing, pricing, market analysis, and marketing costs are defined from the standpoint of the consumer, the middleman, and the manufacturer.

† Open only to students registered in College of Business Administration and to graduate students who have had the necessary preliminary preparation.

†184. **Sales Management.** (3) I, II.

Mr. Robbins

Prerequisite: course 180.

An intensive study, principally by the case method, of sales methods from the point of view of the sales manager. Includes the study of merchandising policy, choice of channels of distribution, market research and analysis, prices and credit terms, sales methods and campaigns; organization of sales department, management of sales force, and budgetary control of sales.

†185. **Advertising Principles.** (3) I, II.

Mr. Brown

Prerequisite: course 180.

A survey of the field of advertising—its use, production, administration, and economic implications. Includes the study of advertising psychology, practice in the preparation of advertisements, consideration of the methods of market research and copy testing, and analysis of campaign planning and sales coordination.

†186. **Retail Store Management.** (3) II.

Mr. Cassady

A study of retailing methods from the standpoint of the owner and manager. Includes the case study of such subjects as purchasing, planning stocks, inventory methods, markup, accounting for stock control, pricing, style merchandising, and general management problems.

†199A-199B. **Special Problems in Business Administration.** (2-2) Yr.

The Staff

Prerequisite: senior standing, six units of upper division courses in business administration, and the consent of the instructor.

GRADUATE COURSES

235. **Money Rates and Money Markets.** (2) II.

Mr. Burtchett

254. **Seminar in Finance.** (2) I.

Mr. Burtchett

260. **Seminar in Accounting Theory.** (2) II.

Mr. Noble

*261A-261B. **Seminar in Accounting Problems.** (2-2) Yr.

Mr. Frisbee

265. **Seminar in Governmental and Institutional Accounting.** (2) I.

Mr. Karrenbrock

270. **Seminar in Marketing Institutions.** (2) I.

Mr. Cassady

271. **Seminar in Market Price Policies.** (2) II.

Mr. Cassady

COMMERCE

‡A. **Typing.** (No credit) I, II.

Mr. Wanous

Fee, \$6.

A study of the principles involved in learning to use the typewriter.

‡B. **Shorthand.** (No credit) I, II.

Mr. Wanous

Fee, \$10.

A study of the beginning principles of Gregg shorthand. Sight reading, penmanship drills, dictation.

† Open only to students registered in College of Business Administration and to graduate students who have had the necessary preliminary preparation.

* Offered only in the second semester, 1941-42.

‡ Although Commerce B gives no credit, it is counted on a student's allowable program as two units. Commerce A may be added to the allowable program.

16. Advanced Typing. (2) I, II.

Mr. Wanous

Prerequisite: Commerce A or the equivalent. Fee, \$2.50.

A study of the principles and practice of teaching typing. Business letters, outlines, legal papers, filing, tabulation. Technique emphasized.

17. Shorthand. (3) I, II.

Mr. Wanous

Prerequisite: Commerce B or the equivalent.

A study of the principles and practice of teaching shorthand. The completion of the Gregg Manual. Advanced reading, dictation, transcription.

18A. Penmanship. (2) I.

Mrs. Plough

A study of the principles of business handwriting; a survey of the methods of teaching penmanship in the elementary schools.

18B. Penmanship. (2) I, II.

Mrs. Plough

Prerequisite: course 18A.

Advanced study and practice in handwriting; a survey of the methods of teaching penmanship in the secondary schools.

PROFESSIONAL COURSES IN METHOD**370A. Methods of Teaching Commercial Subjects. (2) I.**

Mr. Wanous

A study of the principles and problems of teaching commercial subjects in the secondary schools.

370B. Commercial Education. (2) II.

Mr. Wanous

Educational institutions offering training in commerce. These include the secondary school, the university, the business school, the correspondence school and many others. Emphasis is placed on the secondary school.

CHEMISTRY

WILLIAM R. CROWELL, Ph.D., Professor of Chemistry.

FRANCIS E. BLACET, Ph.D., Associate Professor of Chemistry.

MAX S. DUNN, Ph.D., Associate Professor of Chemistry.

JAMES B. RAMSEY, Ph.D., Associate Professor of Chemistry.

G. ROSS ROBERTSON, Ph.D., Associate Professor of Chemistry and Director of the Chemical Laboratories.

HOSMER W. STONE, Ph.D., Associate Professor of Chemistry.

WILLIAM G. YOUNG, Ph.D., Associate Professor of Chemistry (Chairman of the Department).

CHARLES D. CORYELL, Ph.D., Assistant Professor of Chemistry.

THEODORE A. GEISSMAN, Ph.D., Assistant Professor of Chemistry.

THOMAS L. JACOBS, Ph.D., Assistant Professor of Chemistry.

JAMES D. MCCULLOUGH, Ph.D., Assistant Professor of Chemistry.

SAUL WINSTEIN, Ph.D., Instructor in Chemistry.

Admission to Courses in Chemistry.—Regular and transfer students who have the prerequisites for the various courses are not thereby assured of admission to those courses. The department may deny admission to any course if the grade of D has been received in a course prerequisite to that course, or if in the opinion of the department the student shows other evidence of inadequate preparation. Evidence of adequate preparation may consist of satisfactory grades in previous work, or in a special examination, or in both. For each course which involves a limitation of enrollment and which requires a qualifying examination or other special prerequisite, an announcement will be posted before the first day of registration, in each semester, on the Chemistry Department bulletin board. No regular or transfer student should enroll in any course without first consulting a department adviser who will furnish more specific information regarding limitations in enrollment.

Letters and Science List.—All undergraduate courses in chemistry except 10 are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

Preparation for the Major.—Required: Chemistry 1A-1B, Physics 1A-1C, trigonometry, Mathematics 8, 3A-3B, 4A, English 1A, Public Speaking 1A or English 1B, and a reading knowledge of German. Recommended: a second course in chemistry, Physics 1D, Mathematics 4B.

Students are warned that the lower division curriculum prescribed for the College of Chemistry at Berkeley (see page 74) does not meet the requirements for the degree of Associate in Arts in the College of Letters and Science at Los Angeles.

The Major.—All units in chemistry in excess of fourteen are counted as upper division units when taken by a student in the upper division. The minimum requirement for the major is: Chemistry 6A-6B (6), 8 and 9 (6), 110A-110B (6), 111A-111B (4). The remainder of the twenty-four required upper division units are to be taken in chemistry, and not less than two courses are to be selected from the following group: courses 101, 103, 107A, 107B, and 121.

In order to be eligible for full membership in the American Chemical Society in the minimum time after graduation a chemistry major must fulfill the minimum requirements adopted by the Society for professional training of

chemists. Special attention is called to the fact that at least six units of lecture courses and four units of laboratory work are required in organic chemistry. Further details of the requirements are obtainable from departmental advisers.

Laboratory Fees.—These fees cover the cost of material and equipment used by the average careful student. Any excess over this amount will be charged to the individual responsible. The fees are as follows: Courses 1A, 1B, \$14; 2A, 2B, \$10; 6A, 6B, \$17; 9, \$27; 10, \$10; 101, \$27; 103, 107A, 107B, \$15; 108, \$10; 111A, 111B, \$12; 121, 199, \$15.

LOWER DIVISION COURSES

Certain combinations of courses involve limitations of total credit, as follows: 2A and 1A, five units; 2A-2B and 1A, eight units; 2A and 1A-1B, ten units; 2A-2B and 1A-1B, ten units.

1A. General Chemistry. (5) I, II. Mr. McCullough, Mr. Stone

Lectures, three hours; laboratory and quiz, six hours. Fee, \$14.

Prerequisite: high school chemistry, or its equivalent.

A basic course in principles of chemistry with special emphasis on chemical calculations. Required in the Colleges of Agriculture, Chemistry, Engineering, and of pre dental, premedical, premining, prepharmacy and preoptometry students; also of majors in applied physics, bacteriology, chemistry, geology and physics and of medical technicians, and of students in home economics (curriculum C) in the College of Applied Arts.

1B. General Chemistry. (5) I, II. Mr. Blacet

Lectures, three hours; laboratory and quiz, six hours. Fee, \$14.

Prerequisite: course 1A.

Continuation of course 1A with special applications to the theory and technique of qualitative analysis; periodic system; structure of matter. Required in the same curricula as course 1A.

2A-2B. General Chemistry. (4-4) Yr. Mr. Winstein, Mr. Dunn

Lectures, three hours; laboratory and demonstrations, three hours.

Fee, \$10 a semester.

A nontechnical course, with illustrated lectures, in the history, techniques, principles, resources, and applications of chemistry; special projects. This course is required of majors in home economics and physical education.

6A. Quantitative Analysis. (3) I, II. Mr. Crowell, Mr. Stone, Mr. Coryell

Lectures, discussions, and quizzes, two hours; laboratory, six hours.

Fee, \$17.

Prerequisite: course 1A-1B.

Principles and technique involved in fundamental gravimetric and volumetric analyses. Required of chemistry majors, economic geologists, petroleum engineers, sanitary and municipal engineers, medical technicians, and of premedical, College of Chemistry, metallurgy, and certain agriculture students.

6B. Quantitative Analysis. (3) II. Mr. Crowell

Lectures, discussions, and quizzes, two hours; laboratory, six hours.

Fee, \$17.

Prerequisite: course 6A.

Continuation of course 6A but with greater emphasis on theory. Analytical problems in acidimetry and alkalimetry, oxidimetry, electrolytic deposition, and semiquantitative procedures. Required of chemistry majors, economic geologists, and College of Chemistry students.

8. Organic Chemistry. (3) I, II.

Mr. Geissman, Mr. Young

Prerequisite: course 1A-1B; concurrent enrollment in course 9 is advisable.

An introductory study of the compounds of carbon, including both aliphatic and aromatic derivatives. This course is required of premedical and pre dental students, majors in petroleum engineering, sanitary and municipal engineering, chemistry, home economics, some agriculture majors, and College of Chemistry students.

9. Methods of Organic Chemistry. (3) I, II.

Mr. Robertson, Mr. Jacobs

Lectures and quizzes on principles of laboratory manipulation, two hours; laboratory, six hours. Fee, \$27.

Prerequisite or concurrent: course 8.

Laboratory work devoted principally to synthesis, partly to analysis. Required of chemistry majors, College of Chemistry students, premedical and pre dental students, and majors in petroleum engineering.

10. Organic and Food Chemistry. (4) I.

Lectures, three hours; laboratory, three hours. Fee, \$10.

Prerequisite: courses 1A and 1B, or 2A-2B.

Arranged primarily for majors in home economics.

UPPER DIVISION COURSES

Certain combinations of courses involve limitation of total credit, as follows: 107A and 108, four units; 107A-107B and 108, eight units; 109A and 110A, three units; 109A-109B and 110A, four units; 109A and 110A-110B, six units; 109A-109B and 110A-110B, six units.

101. Organic Synthesis. (3) I, II.

Mr. Jacobs, Mr. Robertson

Lecture, one hour; laboratory, eight hours. Fee, \$27.

Prerequisite: courses 8 and 9 and the ability to read scientific German.

Advanced organic preparations; introduction to research methods.

102. Advanced Organic Chemistry. (3) II.

Mr. Robertson

Prerequisite: course 8 and laboratory work in organic chemistry.

Theories of reactions and proofs of structure; isomerism; carbohydrates, alicyclic series, dyes, etc.

103. Qualitative Organic Analysis. (3) I, II.

Mr. Young, Mr. Geissman

Lecture, one hour; laboratory, six hours. Fee, \$15.

Prerequisite: courses 6A-6B, 8, and 9.

Classification, reactions, and identification of organic compounds.

107A. Amino Acids and Proteins. (4) I.

Mr. Dunn

Lectures, two hours; laboratory, six hours. Fee, \$15.

Prerequisite: courses 6A, 8, and 9.

107B. Carbohydrates and Fats. (4) II.

Mr. Dunn

Lectures, two hours; laboratory, six hours. Fee, \$15.

Prerequisite: courses 6A, 8, and 9.

108. General Biochemistry. (4) I.

Mr. Dunn

Lectures, three hours; laboratory or demonstrations, three hours. Fee, \$10.

Prerequisite: course 8; recommended, courses 6A, 9.

May not be offered by chemistry majors as fulfilling part of the laboratory requirements in organic chemistry.

109A-109B. General Physical Chemistry. (2-2) Yr.

Lectures and demonstrations.

Mr. Ramsey, Mr. Coryell

Prerequisite: course 6A; Physics 2A-2B; Mathematics 8. Recommended: course 8; Mathematics 7.

Chemical principles of particular importance in the life sciences and geology. May not be offered as part of the major in chemistry.

110A. Physical Chemistry. (3) I.

Mr. Ramsey

Prerequisite: course 6B; Physics 1A, 1C; Mathematics 4A.

Required of chemistry majors.

110B. Physical Chemistry. (3) II.

Mr. Ramsey

Prerequisite: course 110A and Mathematics 4A.

A continuation of course 110A. Required of chemistry majors.

111A. Physical Chemistry Laboratory. (2) I.

Mr. Coryell

Laboratory, six hours. Fee, \$12.

Prerequisite or concurrent: course 110A.

Physicochemical problems and measurements. Required of chemistry majors.

111B. Physical Chemistry Laboratory. (2) II.

Mr. McCullough

Laboratory, six hours. Fee, \$12.

Prerequisite: course 110A; concurrent: course 110B.

A continuation of course 111A. Required of chemistry majors.

121. Advanced Inorganic Chemistry. (3) I.

Mr. Stone

Lecture, one hour; laboratory, six hours. Fee, \$15.

Prerequisite: course 6B.

Equilibrium and reaction rate; periodic classification. Laboratory work principally synthetic and analytic, involving special techniques.

***131. Absorption Spectra and Photochemical Reactions. (2) I. Mr. Blacet**

Prerequisite or concurrent: course 110A.

132. X Rays and Crystal Structure. (2) II.

Mr. McCullough

Prerequisite: course 110A.

Symmetry of crystals; use of X rays in the investigation of crystal structure.

140. Industrial Chemistry. (2) II.

Mr. Crowell

Prerequisite: course 110A.

Industrial stoichiometry; behavior of gases; vaporization and condensation; thermochemistry; weight and heat balance of industrial processes, etc. Problems and discussions.

199. Problems in Chemistry. (3) I, II.

Fee, \$15.

The Staff (Mr. Robertson in charge)

Prerequisite: junior standing, a good scholastic record, and such special preparation as the problem may demand.

GRADUATE COURSES

203. Chemical Thermodynamics. (3) II.

Mr. Ramsey

204. The Chemical Bond and Molecular Structure. (3) I.

Mr. Coryell

* Not to be given, 1941-42.

221. Physical Aspects of Organic Chemistry. (3) I.

Mr. Young, Mr. Winstein

222. Organic Chemistry. (3) II.

Mr. Jacobs, Mr. Geissman

280A-280B-280C-280D. Research in Chemistry.

(3 to 6 units each semester.)

The Staff (Mr. Blacet in charge)

290A-290B-290C-290D. Advanced Research in Chemistry.

(3 to 6 units each semester.)

The Staff (Mr. Blacet in charge)

CLASSICS

ARTHUR PATCH MCKINLAY, Ph.D., Professor of Latin, Emeritus.

FREDERICK MASON CAREY, Ph.D., Associate Professor of Latin and Greek
(Chairman of the Department of Classics).

HERBERT BENNO HOFFLEIT, Ph.D., Assistant Professor of Latin and Greek.

DOROTHEA CLINTON WOODWORTH, Ph.D., Assistant Professor of Latin and Greek.

PAUL FRIEDLÄNDER, Ph.D., Lecturer in Classics.

DOROTHY C. MERIGOLD, Ph.D., Lecturer in Classics.

Letters and Science List.—All undergraduate courses in classical languages are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

The student may take the major in classical languages either in Latin or in Greek.

Preparation for the Major.

A. Latin.—Required: four years of high school Latin, or two years of high school Latin and courses 1 and 2; courses 3A–3B, 5A, 5B. Recommended: English, French, German, Greek, Italian, Spanish.

B. Greek.—Required: either course 1A–1B or two years of high school Greek; and 5A or 5B, or any two units of 100A–100B–100C–100D (which may be taken concurrently with courses 101 and 102). Recommended: English, French, German, Italian, Latin, Spanish.

The Major.

A. Latin.—Courses 102, 104A–B–C–D (any two units), 106, 115, 117, 120, 191, plus four units of upper division courses in Latin, English, French, German, Greek, Italian, Spanish, philosophy, ancient or medieval history, to be chosen with the approval of the department.

B. Greek.—Courses 101, 102, 103, 104, 105, 114, plus six units of upper division courses in Latin, English, French, German, Spanish, philosophy, ancient or medieval history, to be chosen with the approval of the department.

Requirements for Admission to Graduate Courses.

A candidate for admission to graduate courses in Latin must meet, in addition to the general University requirements, the minimum requirements for an undergraduate major in this department. If the candidate is deficient in this prerequisite he must fulfill it by undergraduate work which is not counted toward his graduate residence.

Requirements for Admission to Candidacy.

1. A reading knowledge of Greek, and of French or German.

2. Completion of course 199A, Sec. 1.

3. An elementary comprehensive examination in Latin literature, Roman history, and Latin composition. The composition requirement may be met by passing Latin 104A–B–C–D with an average of B or better.

Requirement for Master's Degree.

For the general requirements see page 107. The department favors the Comprehensive Examination Plan.

The following courses in the department do not require a knowledge of Greek or Latin:

Latin 40, 42A-42B, 109A-109B, 110A-110B.

Greek 40, 42A-42B, 109A-109B.

LATIN**LOWER DIVISION COURSES**

- A. Beginning Latin.** (3) I. Mrs. Woodworth, Miss Caldwell
- B. Latin Readings.** (3) II. Mrs. Woodworth, Miss Caldwell
Prerequisite: course A or one year of high school Latin.
- GA. Latin Prose Composition.** (1) I, II. Miss Caldwell
Intended primarily for students entering with two years of high school Latin taken at least two years before matriculation in the University.
- GB. Latin Prose Composition.** (1) I, II. Miss Caldwell
Prerequisite: course B or GA, or two or three years of high school Latin.
- 1. Review of Grammar; Ovid.** (3) I. Mrs. Woodworth
Prerequisite: course B or at least two years of high school Latin.
- 2. Vergil.** (3) II. Mrs. Woodworth
Prerequisite: course 1, or course B with special permission of the instructor.
Designed for students who have not studied Vergil in the high school.
- 3A-3B. Latin Prose Composition.** (2-2) Yr. Miss Caldwell
Prerequisite: course 1 or three years of high school Latin.
- 5A. A Survey of Latin Literature.** (3) I, II. Mr. Friedländer, Mrs. Woodworth
Prerequisite: course 2 or four years of high school Latin.
- 5B. A Survey of Latin Literature.** (3) II. Mr. Carey
Prerequisite: course 5A.
- 40. Latin Roots.** (1) I, II. Mr. Hoffleit, Mrs. Woodworth
For students who are interested in the many groups of English words which are derived from the Latin. A knowledge of Latin is not required.
- *42A-42B. Roman Civilization.** (2-2) Yr.
This course will undertake to appraise the accomplishments of Rome and acquaint the student with her significant personalities.
Knowledge of Latin not required.

UPPER DIVISION COURSES

- 102. Silver Latin.** (3) I. Mr. Carey
Prerequisite: courses 5A, 5B.
- †104A-104B. Latin Composition.** (1-1) Yr. Mr. Carey
Prerequisite: course 3A-3B.
Ciceronian prose.

* Not to be given, 1941-42. Latin 42A-42B is ordinarily given in alternation with Greek 42A-42B.

† Not to be given, 1941-42; to be given, 1942-43.

- 104C-104D. Latin Composition.** (1-1) Yr. Mr. Carey
Prerequisite: course 3A-3B.
Ciceronian prose.
- 106. Tacitus: Annals.** (3) II. Mr. Hoffleit
Prerequisite: course 102.
- *109A-109B. A Survey of Latin Literature in English.** (2-2) Yr. Mr. Hoffleit
A study of the literature of Rome from Ennius to Apuleius with reading in English; does not count on the major in Latin.
- *110A-110B. A Survey of Medieval Latin Literature in English.** (2-2) Yr. Mr. Carey
An outline of classical culture from St. Augustine to the Renaissance with reading in English. Does not count on the major in Latin.
- 115. Ovid: Carmina Amatoria and Metamorphoses.** (3) I. Mr. Carey
Prerequisite: courses 102, 106.
- 117. Lucretius: Selections; Vergil: Eclogues and Georgics.** (3) II. Mr. Hoffleit
Prerequisite: 102, 106.
- 120. Roman Satire.** (3) II. Mr. Carey
Prerequisite: courses 102, 106.
- 191. Cicero: Selections.** (3) I. Mr. Friedländer
Prerequisite: courses 102, 106.
- 196A-196B. Readings in Medieval Latin.** (2-2) Yr. Mrs. Woodworth
Prerequisite: two years of high school Latin.
Designed as a preparation for students interested in medieval history, Old English, French, Spanish, and Latin.
- 199A-199B. Special Studies in Latin.** (2-2) Yr.
Prerequisite: senior standing and at least twelve units of upper division Latin.
Section 1: Introduction to classical scholarship. Required of candidates for teaching credentials and for the master's degree. Mr. Hoffleit
Section 2: Problems in classical philology. Mr. Carey and the Staff

GRADUATE COURSES

- *202. Cicero's Philosophical Works.** (3) I. _____
- *203. Roman Historians.** (3) II. _____
- *204. Roman Prose Writers.** (3) I. _____
Cicero's moral and political essays.
- *206. The Roman Epic.** (3) II. Mr. Hoffleit
The Roman epic from Ennius to Silius Italicus.
- 208. Livy.** (3) I. Mr. Hoffleit
- 210. Vergil's Aeneid.** (3) I. Mrs. Woodworth

* Not to be given, 1941-42.

211. Cicero's Rhetorical Works. (3) II.	Mr. Friedländer
*252. Seminar in Latin Studies. (3) I. Linguistics.	Mrs. Woodworth
*253. Seminar in Latin Studies. (3) II. Textual criticism.	Mr. Carey
254. Seminar in Latin Studies. (3) II. Latin comedy.	Mr. Carey
*255. Seminar in Latin Studies. (3) II. Roman elegy.	Mr. Carey
*256. Seminar: Ovid. (3) II.	Mr. Carey

PROFESSIONAL COURSE IN METHOD

370. The Teaching of Latin. (3) I.	Mrs. Merigold
Prerequisite: a foreign language minor.	

GREEK

LOWER DIVISION COURSES

1A-1B. Greek for Beginners, Attic Prose. (3-3) Yr.	Mr. Carey
5A-5B. Readings in Greek. (2-2) Yr.	Mr. Carey
40. Greek Roots. (1) I, II.	Mr. Hoffleit
For science majors and others interested in an understanding of the terms they meet. A knowledge of Greek is not required.	
42A-42B. Greek Civilization. (2-2) Yr.	Mr. Friedländer
A study of the development of Greek culture and its influence upon the modern world. Does not count on the major in Greek.	

UPPER DIVISION COURSES

†100A-100B. Prose Composition. (1-1) Yr.	Mr. Hoffleit
Prerequisite: course 1A-1B.	
100C-100D. Prose Composition. (1-1) Yr.	Mr. Carey
Prerequisite: course 1A-1B.	
101. Homer: Odyssey; Herodotus: Selections. (3) I.	Mr. Carey
Prerequisite: course 1A-1B.	
102. Plato: Apology and Crito; Lyric Poets. (3) II.	Mr. Hoffleit
Prerequisite: course 101.	
‡103. Greek Drama: Euripides and Aristophanes. (3) II.	Mr. Carey
Prerequisite: courses 101, 102.	
104. Historical Prose: Herodotus and Thucydides. (3) I.	Mr. Carey
Prerequisite: courses 101, 102.	

* Not to be given, 1941-42.

† Not to be given, 1941-42; to be given, 1942-43.

‡ Not to be given, 1941-42. Courses 103 and 114 are ordinarily given in alternation with 104 and 105 respectively.

- 105. Greek Drama: Aeschylus and Sophocles. (3) II.** Mr. Carey
Prerequisite: courses 101, 102.
- **109A-109B. A Survey of Greek Literature in English. (2-2) Yr.** Mr. Carey
A study of the literature of Greece from Homer to Lucian with reading in English. Does not count on the major in Greek.
- †114. Plato: Republic. (3) I.** Mr. Carey
Prerequisite: courses 101, 102.
- 117A-117B. Greek New Testament. (2-2) Yr.** Mr. Hoffleit
- 199A-199B. Special Studies in Greek. (1-4; 1-4) Yr.** Mr. Carey and the Staff
Prerequisite: senior standing and at least twelve units of upper division Greek.
Problems in classical philology.

RELATED COURSES IN OTHER DEPARTMENTS

- General Philology and Linguistics 150. Introduction to General Language. (1) I.** Mrs. Woodworth
(See page 175.)
- History 111A-111B. Ancient History. (3-3) Yr.** Mr. Howard
- Philosophy 152. Plato and his Predecessors. (3) I.** Mr. Friedländer
- Philosophy 153. Aristotle and Later Greek Philosophy. (2) II.** Mr. Friedländer

** Not to be given 1941-42. Greek 109A-109B is ordinarily given in alternation with Latin 109A-109B.

† Not to be given, 1941-42. Courses 108 and 114 are ordinarily given in alternation with 104 and 105 respectively.

ECONOMICS

BENJAMIN M. ANDERSON, Ph.D., Professor of Economics.

EARL JOYCE MILLER, Ph.D., Professor of Economics.

GORDON S. WATKINS, Ph.D., Professor of Economics.

PAUL A. DODD, Ph.D., Associate Professor of Economics.

LEWIS A. MAVERICK, Ed.D., Ph.D., Associate Professor of Economics.

DUDLEY F. PEGRUM, Ph.D., Associate Professor of Economics (Chairman of the Department).

MARVEL M. STOCKWELL, Ph.D., Associate Professor of Economics.

———, Associate Professor of Economics.

ROBERT E. RAPF, Ph.D., Assistant Professor of Economics.

WARREN C. SCOVILLE, Ph.D., Instructor in Economics.

Letters and Science List.—All undergraduate courses in economics are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

Preparation for the Major.—Required: Economics 1A–1B, Business Administration 1A–1B and either History 4A–4B or History 5A–5B. Economics 40 is required of all majors in economics (unless they are prepared to take Economics 142 or Mathematics 131A), but it may be taken in either lower or upper division.

The Major.—Twenty-four upper division units including two units from Economics 100A, 100B, 102, or 103. A maximum of six units may be offered toward the major from the following list of courses: Business Administration 131, 132, 145, 153, 160A–160B, 180, or six upper division units in sociology, or History 112A–112B; the six units must be entirely in one department.

Not more than a total of 30 upper division units in economics and business administration may be counted toward the bachelor's degree.

Students planning to undertake graduate work in economics will do well to study mathematics. For those who have not the background or the time for more extended work, Mathematics 2 or 7 is recommended.

Laboratory Fee.—Economics 40, \$2.

LOWER DIVISION COURSES

1A–1B. Principles of Economics. (3–3) Beginning either semester.

Lectures, two hours; quiz, one hour. Mr. Miller, Mr. Stockwell

40. Economic and Social Statistics. (3) I, II.

Mr. Maverick

Lectures, two hours; laboratory, one two-hour period.

Prerequisite: sophomore standing. Fee, \$2.

An introduction to methods of analyzing economic and statistical data, with emphasis on analysis; sources and interpretation of economic and social statistics. Mathematical treatment is reduced to the simplest possible terms. Mathematics 131A may be substituted for this course in preparation for the major in economics.

UPPER DIVISION COURSES

Course 1A-1B is a prerequisite to all upper division courses in economics.

100A. General Economic Theory. (2) I, II.

Mr. Rapp

An introduction to economic theory with emphasis upon its application to practical problems.

100B. Value and Distribution. (2) I.

Mr. Maverick

Not open for full credit to students who have taken course 100A.

Study of the principles of value and distribution under competition, monopoly, and monopolistic competition.

102. Mathematical Economics. (2) I.

Mr. Maverick

Prerequisite: either differential calculus or Mathematics 7.

Demand, supply, cost and prices under conditions of competition and monopoly; general equilibrium.

103. Development of Economic Theory. (2) II.

Mr. Maverick

A study of economic theory by emphasis on historical development of theory of value, production, distribution, population, etc.

104. Principles of Economics. (3) I.

Mr. Stockwell

Not open to majors in economics; this course will not serve in place of 1A-1B as a prerequisite to upper division courses in economics.

Principles of economics with applications to current problems.

106. The History of Utopian Thought. (3) II

Mr. Scoville

A study of the Utopias that have influenced economic thought from Plato's *Republic* to H. G. Wells' *Modern Utopia*.

107. Comparative Economics Systems. (3) I.

Mr. Scoville

The concepts and agencies of economic and social progress; an analysis of the theories and programs of modern reform movements.

131A-131B. Public Finance. (2-2) Yr.

Mr. Stockwell

The principles underlying the raising and spending of public money. Property, income, corporation, inheritance, sales taxes, and other sources of revenue. Public borrowing. Budgetary procedure. Economic and social significance of the fiscal structure and policies.

133. Federal Finance. (3) II.

Mr. Rapp

Prerequisite: course 131A.

A study of the federal budget, federal expenditures, national defense, and financing of federal projects such as R.F.C., A.A.A., and public works.

135. Money and Banking. (3) I, II.

Mr. Anderson

Lectures, two hours; quiz, one hour.

The principles and history of money and banking, with principal reference to the experience and problems of the United States.

136A. Monetary and Financial History, 1913 to 1929. (2) I.

Mr. Anderson

Prerequisite: course 135.

The monetary and financial history, together with the major theoretical issues of the period 1913-29; although the principal emphasis is laid upon financial conditions in the United States, the international setting is also considered, particularly with reference to England, France, and Germany.

- 136B. Monetary and Financial History since 1929. (2) II.** Mr. Anderson
Prerequisite: course 135.
This course is a continuation of course 136A, but may be taken separately.
- *137. International Finance. (3) I.**
An analysis of recent international financial developments with particular attention to intergovernmental loans and reparations, private capital movements, gold flows, etc.
- 138. Business Cycles. (3) I.** Mr. Maverick
Prerequisite: senior standing.
A study of fluctuations in business, as in prices, production, wages, and profits; whether there is a common or general fluctuation; theories of causation; feasibility of forecasting; adjustment of business management to the cycles; possibility of controlling the cycle or alleviating its social effects.
- *142. Applied Statistics. (3) II.** Mr. Maverick
Prerequisite: differential calculus.
- 150. Labor Economics. (3) I, II.** Mr. Dodd
The problems of labor; the rise of modern industrialism; the principal causes of industrial strife, and the basis of industrial peace.
- 152. Social Insurance. (3) I.** Mr. Dodd
Basis of the Social Security program; unemployment insurance, workmen's compensation, old age pensions, insurance against sickness.
- 155. History and Problems of the Labor Movement. (2) II.** Mr. Dodd
The development of the American labor movement; the structure of unionism; demands and accomplishments of labor. A theory of the labor movement. The contemporary movement.
- 170. Economics of Industrial Control. (3) II.** Mr. Pegrum
The economic functions of business organizations; the economics of industrial production and pricing; the control of competitive enterprise; combinations and monopolies and their control; governmental regulation.
- 171. Public Utilities. (3) I.** Mr. Pegrum
The economics of public service corporations from both the public and private points of view; the economic problems of regulation; problems of finance, rate-making, and valuation; state, national, and international problems arising from the development of public utilities; public ownership.
- 173. Economics of Transportation. (3) I, II.** Mr. Rapp
A general historical and contemporaneous survey of transportation agencies in the United States; the functions of the different transportation agencies; rate structures; problems of state and federal regulation; coördination of facilities. The current transportation problem.
- 195. Principles of International Trade. (3) I.** Mr. Robbins
An introduction to the principles and practices of international trade and foreign exchange. A survey of the historical development of the theories of foreign trade. A brief introduction to methods and practices of exporting and importing.
- 196A. International Economics. (3) I.** Mr. Seoville
Fundamental factors in international economic relations; theories of capital movements; theories of public policy.

* Not to be given, 1941-42.

196B. Problems in International Economics. (3) II.**Mr. Seoville**

Distribution of world's population and resources, commercial policies, international controls.

GRADUATE COURSES**201A-201B. History of Economic Doctrine. (3-3) Yr.****Mr. Watkins****214. Economic Theory. (3) I.****Mr. Rapp**

The basic principles of economic theory; the nature of economic science; consumption, production, value and price, distribution.

***215. Economics of Production. (3) II.**

Production economics; competition; imperfect competition; monopoly; overhead costs; the planning of production.

232A-232B. The Relations of Government to Economic Life. (3-8) Yr.**Mr. Pegrum**

A study of government in economic life with special reference to institutional factors, economic problems of regulation, price policies and economic planning, war-time controls.

233. Studies in Public Finance. (2) II.**Mr. Stockwell****235. Monetary Theory. (2) II.****Mr. Anderson****236. Studies in Contemporary Banking. (2) I.****Mr. Anderson****238. Economic Fluctuations. (2) II.****Mr. Maverick****240. Social Insurance. (2) I.****Mr. Dodd****242. Studies in Industrial Relations. (2) II.****Mr. Dodd*****255. Value and Distribution. Seminar. (2) I.****Mr. Anderson**

Prerequisite: the consent of the instructor.

290. Special Problems. (1-6) I, II. The Staff (Mr. Anderson in charge)

* Not to be given, 1941-42.

EDUCATION

MERTON E. HILL, Ed.D., Professor of Education.
DAVID F. JACKEY, Ph.D., Professor of Vocational Education.
EDWIN A. LEE, Ph.D., Professor of Education (Chairman of the Department).
KATHERINE L. McLAUGHLIN, Ph.D., Professor of Education.
JUNIUS L. MERIAM, Ph.D., Professor of Education.
LLOYD N. MORRISSETT, Ph.D., Professor of Education.
WILLIAM A. SMITH, Ph.D., Professor of Education.
CHARLES WILKIN WADDELL, Ph.D., Professor of Education.
J. HAROLD WILLIAMS, Ph.D., Professor of Education.
FREDRIC P. WOELLNER, Ph.D., Professor of Education.
FLAUD C. WOOTON, Ph.D., Visiting Professor of Education.
ERNEST CARROLL MOORE, Ph.D., LL.D., Professor of Education and Philosophy, Emeritus.
JESSE A. BOND, Ed.D., Associate Professor of Education.
HARVEY L. EBY, Ph.D., Associate Professor of Education.
ETHEL I. SALISBURY, M.A., Associate Professor of Elementary Education.
CLARENCE HALL ROBISON, Ph.D., Associate Professor of Education, Emeritus.
JOHN A. HOCKETT, Ph.D., Assistant Professor of Education.
DAVID McDONALD, Ph.D., Assistant Professor of Education and Educational Counselor.
MAY V. SEAGOE, Ph.D., Assistant Professor of Education.
CORINNE A. SEEDS, M.A., Assistant Professor of Elementary Education.
SAMUEL J. WANOUS, Ph.D., Assistant Professor of Commercial Practice and Business Education.
DONALD G. STEWART, M.A., Assistant in Education.

HELEN CHRISTIANSON, Ph.D., Lecturer in Education.

Training

JESSE A. BOND, Ed.D., Director of Training.
JOHN A. HOCKETT, Ph.D., Associate Director of Training.

Departmental Supervisors

ROBERT S. HILPERT, M.A., Associate Professor of Art Education.
CLARA BARTRAM HUMPHREYS, M.A., Associate in Fine Arts.
SAMUEL J. WANOUS, Ph.D., Assistant Professor of Commercial Practice and Business Education.
ESTELLA B. PLOUGH, Associate in Commercial Practice.
LEILA M. DOMAN, Ph.D., Instructor in Home Economics.
FOSS E. BROCKWAY, Ed.B., Associate in Mechanic Arts.
HELEN CHUTE DILL, M.A., Supervisor of Training, Music.

HAZEL J. CUBBERLEY, M.A., Associate Supervisor of Physical Education for Women.

PAUL FRAMPTON, M.A., Associate Supervisor of Physical Education for Men.

University Elementary School

CORINNE A. SEEDS, M.A., Principal of the University Elementary School.

HELEN CHRISTIANSON, Ph.D., Supervisor of Nursery School Training.

DIANA W. ANDERSON, M.A., Supervisor of Training, Physical Education.

LAVERNA L. LOSSING, M.A., Supervisor of Training, Music.

NATALIE WHITE, M.A., Supervisor of Training, Art.

SYBIL K. RICHARDSON, M.A., School Counselor.

GERTRUDE C. MALONEY, M.A., Training Teacher, Sixth Grade.

HELEN F. BOUTON, M.A., Training Teacher, Fifth Grade.

NORA BELLE HEFLIN, M.A., Training Teacher, Fifth Grade.

BESSIE HOYT PERSELS, M.A., Training Teacher, Fourth Grade.

LOLA C. JENSEN, B.S., Training Teacher, Third Grade.

HELEN SUE READ, B.S., Training Teacher, Second Grade.

CLAYTON BURROW, M.S., Training Teacher, First Grade.

JANE BERNHARDT STRYKER, M.A., Training Teacher, Kindergarten.

MARJORIE LEMBARK, Ed.B., Assistant Training Teacher, Kindergarten.

BLANCHE LUDLUM, M.A., Assistant Training Teacher, Nursery School.

ELEANOR STRAND, Ed.B., Assistant Training Teacher, Nursery School.

PHOEBE JAMES, Assistant in the University Elementary School.

City Training Schools

NORA STEERY ELEMENTARY TRAINING SCHOOL

GEORGE F. GRIMES, B.S., Principal.

HELEN B. KELLER, Ed.B., Supervisor of Training, Elementary.

The staff consists of twenty to twenty-five training teachers selected from the Los Angeles city school system. The personnel varies from year to year.

FAIRBURN AVENUE ELEMENTARY DEMONSTRATION SCHOOL

MARY LINDSEY, M.A., Principal.

ETHEL I. SALISBURY, M.A., Supervisor of Training.

A staff of demonstration teachers, varying in personnel from year to year, is chosen from the Los Angeles school system to carry on work open for observation to university students, public school teachers, and administrators.

JUNIOR AND SENIOR HIGH SCHOOLS

RALPH D. WADSWORTH, M.A., Principal, University High School.

HELEN M. DARSIE, M.A., Vice-Principal, University High School.

RAYMOND J. CASEY, M.A., Vice-Principal, University High School.

PAUL E. GUSTAFSON, M.A., Principal, Emerson Junior High School.

CARRIE M. BROADED, M.A., Vice-Principal, Emerson Junior High School.

CRAWFORD E. PEEK, M.A., Vice-Principal, Emerson Junior High School.
 LUZERNE W. CRANDALL, M.A., Supervisor of Training, Secondary.
 ATTILIO BISSIRI, M.A., Supervisor of Training, Secondary.
 CECILIA R. IRVINE, M.A., Supervisor of Training, Secondary.
 DOROTHY C. MERIGOLD, Ph.D., Supervisor of Training, Secondary.
 MARYELLEN LOMBARDI, Ph.D., Counselor, University High School.
 HILDUR C. OSTERBERG, M.A., Counselor, Emerson Junior High School.

The rest of the secondary school staff consists of about one hundred public school teachers carefully chosen for their ability as teachers and as supervisors by the University supervisory staff and approved for such service by the public school authorities. Each ordinarily assumes responsibility for the training of not more than one to three student teachers at any one time. The personnel varies from semester to semester as the needs of the University require.

An undergraduate major is not offered in the Department of Education* at Los Angeles. Students desiring to qualify for certificates of completion leading to teaching and administration credentials should consult the ANNOUNCEMENT OF THE SCHOOL OF EDUCATION, LOS ANGELES.

The College of Letters and Science

Letters and Science List.—Courses 101A–101B, 102, 106, 110, 111, 112, 114, 119, 170, 180 are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

UPPER DIVISION COURSES

History and Theory of Education

101A–101B. History and Philosophy of Education. (3–3) Yr. Mr. Meriam

The story of instruction from its beginning in Greece; the account of Athens, the practices of the Athenians and the critical thinking of Socrates, Plato, and Aristotle; Roman education; a survey of the philosophy of education exhibited in the writings of educational leaders since 1900.

102. History of American Education. (3) I, II.

Mr. Eby

The development of significant educational movements in the United States as a basis for analysis of present-day problems.

106. The Principles of Education. (3) I, II.

Mr. Lee, Mr. McDonald

A critical analysis of the assumptions underlying education in a democratic social order.

Educational Psychology

Psychology 21, 22, or the equivalent, are prerequisite to all courses in educational psychology.

* Until September 15, 1943 students registered as majors in education in the Teachers College prior to July 1, 1939, may complete requirements for the degree of Bachelor of Education and for teaching credentials, under the requirements of that college as listed in the General Catalogue of the Departments at Los Angeles, 1938–39.

110. The Conditions of Learning. (3) I, II.

Miss Seagoe

Speech, writing, number, literature, science considered as social institutions evolved through coöperative intellectual effort. Analysis of the conditions under which the child attains most effective mastery of these skills and knowledges.

111. Growth and Development of the Child. (3) I, II.

Miss McLaughlin

A study of intellectual, emotional, and social development during childhood and adolescence. Particular attention is given to problems of mental hygiene during critical growth periods.

112. Adolescence. (3) I, II.

Mr. Waddell

The physical, mental, moral, and social traits of adolescence with special reference to their bearing upon problems of instruction in junior and senior high schools.

114. Educational Statistics. (2) I, II.

Mr. Williams

Statistical procedures applicable to educational problems and educational research.

119. Educational Measurement. (2) I, II.

Miss Seagoe

Use of standardized tests in problems of group and individual diagnosis and evaluation.

*Early Childhood Education****123. Social Backgrounds of Child Development. (3) I.**

Miss Christianson

Prerequisite: Psychology 21 and 22.

A study of the factors conditioning growth, development, and learning in early childhood.

***124. Arts in Childhood Education. (3) II.**

Miss Christianson

Prerequisite: course 111.

The functional values of music, speech, rhythm, and dramatic play in early child development.

125A. Kindergarten-Primary Education. (3) I.

Miss McLaughlin

Prerequisite: courses 110, 111.

Required for the kindergarten-primary teaching credential.

Reading and literature in the lower school, including aims, standards of attainment, materials, and technique of teaching.

125B. Kindergarten-Primary Education. (3) II.

Miss McLaughlin

Prerequisite: course 125A.

Required for the kindergarten-primary teaching credential.

Organization, curricula, and procedures in the nursery school, kindergarten, and primary grades.

*Elementary Education***136. Rural School Curriculum Adaptations. (3) I, II.**

Mr. Eby

The development and direction of the curriculum in a rural school situation; the availability and use of the educational resources in the local environment.

139. The Elementary Curriculum. (3) I, II.

Mr. Meriam

Prerequisite: senior standing.

An introduction to the problem of curriculum organization as exemplified in representative courses of study. Emphasis is laid on the planning of activity units appropriate to the varying maturity levels of children.

* Not to be given, 1941-42.

Educational Administration and Supervision

- 140. The Teacher and Administration.** (2) I, II. Mr. Morrisett
The teacher considered as a part of the educational system and his responsibilities to the organization.
- *142. State and County School Administration.** (2) I. ———
Prerequisite: the consent of the instructor.
The organization and administration of state school systems with special reference to the interrelation of federal, state, and county support and organization.
- *147. Rural School Administration.** (3) I. Mr. Eby
A consideration of the problems, principles, and methods involved in the administration of a rural school system.
- 148. Legal Bases of Public Education in California.** (2) II. Mr. McDonald
Prerequisite: the consent of the instructor.
Organization and administration of the California school system, as given in the school law of the state and as interpreted by the rulings of the State Superintendent of Public Instruction and the Attorney General.

Vocational Education

- 160. Vocational Education.** (2) I. Mr. Jackey
An attempt to develop an understanding and appreciation of the economic and social significance of vocational education in a democracy.
- 164. Vocational Guidance.** (2) II. Mr. Jackey
The need of vocational guidance in a changing industrial order. The technique of guidance, as exemplified in case studies.
- 165. Business Education.** (3) II. Mr. Wanous
The organization, administration, and teaching of business education in secondary schools.

Secondary Education

- 170. Secondary Education.** (3) I, II. Mr. Smith
Prerequisite: senior standing and Psychology 21, 22.
A study of secondary education in the United States, with special reference to the needs of junior and senior high school teachers.

Social and Adult Education

- 180. Social Foundations of Education.** (3) I, II. Mr. Woellner
Education as a factor in social evolution. Analysis of current educational practices in the light of modern social needs.
- 181. Adult Education.** (2) I, II. Mr. Woellner
An analysis of the adult education movement to ascertain principles for organizing and conducting special and evening classes for mature students. Problems of citizenship, Americanization, and vocational and liberal education will be considered.

* Not to be given, 1941-42.

185. Rural Society and Education. (3) I, II.

Mr. Eby

A study of the social-economic problems and needs in rural communities as affecting rural education.

Special Studies in Education

Open to senior and graduate students with the permission of the instructor.

199A. Studies in Administration of Secondary Education. (2 to 4) I, II.

Mr. Hill

***199B. Studies in Curriculum.** (2 to 4) I, II.

Mr. Meriam

199C. Studies in Educational Psychology. (2 to 4) I, II.

Miss Seagoe

199D. Studies in Rural Education. (2 to 4) II.

Mr. Eby

199E. Studies in Administration of Elementary Education. (2 to 4) I, II.

Mr. Hockett

199F. Studies in Guidance. (2 to 4) I, II.

Mr. McDonald

GRADUATE COURSES§

240. Organization and Administration of Education. (2) I, II.

Mr. Morrisett

241. City School Administration. (2) I, II.

Mr. Morrisett

243. Administration of Secondary Education. (2) II.

Mr. Hill

250A-250B. History of Education. Seminar. (2-2) Yr.

Mr. Wooton

251A-251B. Elementary Administration and Supervision. Seminar. (2-2) Yr.

Mr. Waddell

253A-253B. Early Childhood Education. Seminar. (2-2) Yr.

Miss McLaughlin

254. Experimental Education. Seminar. (2) I.

Mr. Williams

255. School Surveys. Seminar. (2) II.

Mr. Williams

256A-256B. Principles of Education. Seminar. (2-2) Yr.

Mr. Wooton

Prerequisite: course 106 or its equivalent.

260A-260B. Educational Psychology. Seminar. (2-2) Yr.

Miss Seagoe

Prerequisite: course 110 or Psychology 110, and course 114 or 119.

262A-262B. The Elementary School Curriculum. Seminar. (2-2) Yr.

Mr. Hockett

270A-270B. Secondary Education. Seminar. (2-2) Yr.

Mr. Smith

275A-275B. Problems in Secondary Education. (2-2) Yr.

Mr. Wooton

276A-276B. Research in Curriculum. (1-4; 1-4) Yr.

Mr. Meriam

279. Problems in Junior College Administration. (2) I.

Mr. Hill

292A-292B. Research in Educational Administration (1-4; 1-4) Yr.

Mr. Morrisett

Prerequisite: teaching experience in elementary or secondary schools.

* Not to be given, 1941-42.

§ A thesis is required of all candidates for the degree of Master of Arts with major in education.

COURSES PREPARATORY TO SUPERVISED TEACHING

330. Introduction to Elementary Teaching. (4) I, II

Miss Seeds, Mr. Hockett

Prerequisite: courses 110, 111, and a C average or better in all work taken in the University of California.

An intensive study of the principles of teaching made effective by assigned reading, observation, participation, analysis of teaching problems, and preparation of units of work.

This course precedes by one semester all teaching in kindergarten-primary and general elementary grades.

370. Introduction to Secondary Teaching. (3) I, II.

Mr. Bond

Prerequisite: regular graduate status; courses 170 and one of: 101A, 101B, 102, 106, 112, 180, or Psychology 110.

An intensive study of teaching and learning in the secondary school. This course is prerequisite to courses G377, G378 and G379, and is so conducted as to prepare for and lead to definite placement in actual supervised teaching.

Other courses in teaching methods in special subjects will be found listed in the 300-series, Professional Courses in Method, in the offerings of the various departments.

SUPERVISED TEACHING

Supervised teaching is provided for in (1) the University Elementary School, comprising a nursery school, kindergarten, and the elementary grades; (2) Nora Sterry Elementary School of Los Angeles City; (3) Fairburn Avenue Elementary School; (4) University High School and Emerson Junior High School of Los Angeles City; (5) other high schools of Los Angeles and Santa Monica, as requirements demand.

The work is organized and administered by the Director of Training and a corps of supervisors and training teachers, chosen in every case by the University authorities.

All candidates for supervised teaching must secure the approval of a university physician prior to assignment. Formal application for assignment must be made at the office of the Director of Training about the middle of the semester preceding that in which such teaching is to be done. For the last dates of application without late fee, see the Calendar, pages 8 and 9. All courses are offered each semester.

Undergraduate candidates for kindergarten-primary, elementary, or special secondary teaching must have maintained at least a C average in all courses in education, in all courses comprising the major, and in all work completed at the University of California.

*For Kindergarten-Primary, General Elementary and General
Junior High School Credentials*

K335A-K335B. Kindergarten-Primary. (4-4).

Prerequisite: senior standing and course 330.

Required of all candidates for the Kindergarten-Primary Credential.

K336. Kindergarten-Primary. (1 to 4).

Supplementary teaching which may be elected by the student, or in certain cases, required by the department.

E335A-E335B. General Elementary. (4-4).

Prerequisite: senior standing and course 330.

Required of all candidates for the General Elementary Credential.

E336. General Elementary. (1 to 4).

Supplementary teaching which may be elected by the student, or in certain cases, required by the department.

J374. General Junior High School. (2 to 6).

Prerequisite: course E335A-E335B, or a minimum of 6 units of teaching in a special field.

For Special Secondary Credentials

A375. Art. (3 or 4).**A376. Art. (1 to 4).**

Prerequisite: senior standing, course 170, Art 370A-370B.

A total of six units required of all candidates for the Special Secondary Credential in Art.

B375. Business Education. (3 or 4).**B376. Business Education. (1 to 4).**

Prerequisite: senior standing, course 170, Commerce 370A-370B.

A total of six units required of all candidates for the Special Secondary Credential in Business Education.

H375. Home Economics. (3 or 4).**H376. Home Economics. (1 to 4).**

Prerequisite: senior standing, course 170, Home Economics 370.

A total of six units required of all candidates for the Special Secondary Credential in Homemaking.

MA375. Mechanic Arts. (3 or 4).**MA376. Mechanic Arts. (1 to 4).**

Prerequisite: senior standing, course 170, Mechanic Arts 370.

A total of six units required of all candidates for the Special Secondary Credential in Industrial Arts Education.

M375. Music. (3 or 4).**M376. Music. (1 to 4).**

Prerequisite: senior standing, course 170, Music 370A-370B.

A total of six units required of all candidates for the Special Secondary Credential in Music.

P375. Physical Education. (3 or 4).**P376. Physical Education. (1 to 4).**

Prerequisite: senior standing, course 170, Physical Education for Men 354 and 355A-355B, or Physical Education for Women 321A-321B and 321C-321D.

For General Secondary and Junior College Credentials

G377. General Secondary. (4).

Prerequisite: regular graduate status, courses 170, 370.

Supervised teaching consisting of participation in the instructional activities of one high school class for one semester. This course is accompanied by a required conference each week; hours for teaching are by individual arrangement. Required of all candidates for the General Secondary Credential.

G378. General Secondary. (1 to 6).

Prerequisite: regular graduate status, courses 370 and G377, or the equivalents, or public school experience and the consent of the Director of Training.

A supplementary course in secondary teaching designed for (1) those experienced in public school teaching who need to improve their teaching techniques; (2) those seeking general secondary or junior college credentials after having completed the supervised teaching required for some other type of credential; (3) those who wish to elect types of classroom or other experience not provided in their previous training.

G379. Junior College. (4).

Prerequisite: courses 279, 370, or the equivalents, and the consent of the Director of Training.

Restricted to candidates for the Junior College Credential alone who are teaching classes in the University or in a junior college.

TEACHING REQUIREMENTS FOR MORE THAN ONE CREDENTIAL**1. Kindergarten-Primary and General Elementary Credentials:**

Education K335A-K335B, and E335A; or E335A-E335B, and K335A.

2. General Elementary and General Junior High School Credentials:

E335A-E335B, and J374 (in a minor field).

3. General Elementary and Special Secondary Credentials:

A minimum of 6 units of teaching in the special field, and E335A.

4. General Elementary and General Secondary Credentials:

E335A-E335B, and G377 or G378; or G377, and E335A.

5. Special Secondary and General Junior High School Credentials:

A minimum of 6 units of teaching in the special field, and J374 (in a minor field).

6. Special Secondary and General Secondary Credentials:

A minimum of 6 units of teaching in the special field, and G377 or G378; or G377, and a minimum of 6 units of teaching in the special field.

7. Junior College and General Secondary Credentials:

G379, and G377 or G378.

ENGLISH

FREDERIC THOMAS BLANCHARD, Ph.D., Professor of English.

LILY B. CAMPBELL, Ph.D., Professor of English.

SIGURD BERNHARD HUSTVEDT, Ph.D., Professor of English.

DIXON WECTER, Ph.D., Professor of English.

ALFRED E. LONGUEIL, Ph.D., Associate Professor of English (Chairman of the Department).

—————, Associate Professor of English.

HERBERT F. ALLEN, Ph.D., Associate Professor of English, Emeritus.

BRADFORD A. BOOTH, JR., Ph.D., Assistant Professor of English.

LLEWELLYN MORGAN BUELL, Ph.D., Assistant Professor of English.

MARGARET SPRAGUE CARHART, Ph.D., Assistant Professor of English.

CARL SAWYER DOWNES, Ph.D., Assistant Professor of English.

MAJL EWING, Ph.D., Assistant Professor of English.

EDWARD N. HOOKER, Ph.D., Assistant Professor of English.

CLAUDE JONES, Ph.D., Assistant Professor of English.

HARRISON M. KARR, Ph.D., Assistant Professor of Public Speaking.

WESLEY LEWIS, Ph.D., Assistant Professor of Public Speaking.

HARRIET M. MACKENZIE, Ph.D., Assistant Professor of English.

WILLIAM MATTHEWS, Ph.D., Assistant Professor of English.

FRANKLIN PRESCOTT ROLFE, Ph.D., Assistant Professor of English.

HUGH THOMAS SWEDENBERG, Ph.D., Assistant Professor of English.

HUGH GILCHRIST DICK, Ph.D., Instructor in English.

ALICE O. HUNNEWELL, B.L.I., Instructor in English.

JAMES MURRAY, Ed.D., Instructor in Public Speaking.

JAMES E. PHILLIPS, JR., Ph.D., Instructor in English.

HENRY F. THOMA, Ph.D., Instructor in English.

ERIC R. BENTLEY, A.B., B.Litt., Lecturer in English.

RALPH FREUD, Lecturer in Public Speaking.

¹ERNEST VAN B. JONES, M.A., Lecturer in English.

DANIEL VANDRAEGEN, M.A., Lecturer in Public Speaking.

LOUIS B. WRIGHT, Ph.D., Lecturer in English.

Students must have passed Subject A (either examination or course) before taking any course in English or public speaking. Regulations concerning Subject A will be found on page 38 of this Catalogue.

Letters and Science List.—All undergraduate courses in English and public speaking are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

Preparation for the Major.—Courses 1A–1B and 36A–36B or the equivalent, with an average grade of C or higher; History 5A–5B or the equivalent.

Recommended: Ancient and modern foreign languages. A reading knowledge of French or German is required for the M.A. degree. For the Ph.D. degree a reading knowledge of both French and German is required; a reading knowledge of Latin is essential for work in some fields.

¹ In residence first semester only, 1941–42.

The Major.—1. Students must present, in the first half of the junior year, a program to be examined and approved by the departmental adviser to upper division students. The program may be amended from time to time after consultation with the department representative.

2. The program must comprise 24 units of upper division courses, including (1) English 117J, to be taken in the junior year; (2) one of the type courses; (3) two of the Age courses; (4) English 151L, to be taken in the senior year.

3. The student must maintain an average grade of C in upper division English courses, and at the end of the senior year must pass a comprehensive final examination.

A. Requirements for the General Secondary Credential.

1. For the field major in English and Speech.

(a) The completion of the following: (1) English 1A–1B, 36A–36B; (2) six units from Public Speaking 1A, 2A, 2B; (3) English 106 or 31; 117J; 130A–130B or 190A–190B; 115 or 153; (4) six units from English 114A–114B, 122A–122B, 125C–125D, 125G–125H; (5) six units from English 156, 157, 167, 177, 187; (6) six units from Public Speaking 111C–111D, 122, 155A–155B, 156, 165; (7) English 370, to be taken in the first semester of graduate residence; (8) six units of courses in the 200 series or their equivalent, to be selected after consultation with the adviser.

(b) The passing of the Senior Comprehensive Final Examination with a grade of C or better.

2. For the field minor in English and speech, the completion of the following courses: (1) English 1A–1B, 36A–36B; (2) three units from Public Speaking 1A, 2A; (3) English 106 or 31; 117J; (4) six units from English 114A–114B, 115, 125C–125D, 130A–130B, 153, 190A–190B.

B. Requirements for Admission to Graduate Courses.

Ordinarily the undergraduate major in English or its equivalent. (No graduate student may take a graduate course in English who has to his credit fewer than twelve units in upper division major courses in English.) This requirement is prerequisite to the twenty-four units demanded for the master's degree. If the candidate is deficient in this prerequisite, he must fulfill it by work undertaken as a graduate student.

C. Requirements for the Master's Degree.

1. For the general requirements, see page 107. The department follows Plan II.

2. Departmental requirements: (a) Students are required to take the reading test in French or German at the beginning of the first semester of residence. (b) They must pass a preliminary general examination, set by the department toward the middle of each semester. Those who have passed the Senior English Comprehensive Examination with a grade of B will be excused from this examination. (c) They must complete English 200, Bibliography (offered in the first semester only), and three units from English 208, 209, 211A, 212. (d) Students should choose the allowable 12 undergraduate units from English 110, 111, 151L, and the Age courses.

D. Requirements for the Doctor's Degree.

1. For the general requirements, see page 110.

2. Departmental requirements: (a) On entering the department, candidates will present to the chairman a written statement of their preparation in French, German, and Latin. They must take the reading test in one of the two required modern foreign languages (French and German) at the beginning of the first semester of residence, the test in the other not later than the beginning of the third semester of residence. For work in some fields a reading knowledge of Latin will be necessary. (b) Candidates must complete English 200, Bibliography, at the first opportunity. For other course requirements, consult the department.

3. The qualifying examination for advancement to candidacy will consist of two parts: (a) English language—a six-hour written examination covering the history, structure, and literary use of the English language from the beginning to the present; this part of the examination should be taken at least three semesters before the date at which the student expects to receive the degree. (b) English literature—a general examination, written and oral, covering English literature in all its phases from the beginning to the present. The written section will be set in five three-hour sections covering the main periods of English literature, with particular emphasis on the candidate's special field. The oral section will be at least two hours in length. This examination should be taken at least two semesters before the date at which the student expects to receive the degree.

LOWER DIVISION COURSES*Freshman Courses*

1A-1B. First-Year Reading and Composition. (3-3) Beginning either semester. Mr. Rolfe in charge

Open to all students who have received a passing grade in Subject A.

***4A. World Literature: Dramatic Comedy.** (1) I. Mr. Longueil in charge

***4B. World Literature: Dramatic Tragedy.** (1) II. Mr. Longueil in charge

***4C. World Literature: the Novel.** (1) I. Mr. Longueil in charge

***4D. World Literature: Famous Utopias.** (1) II. Mr. Longueil in charge

5A-5B. Great Books. (1-1) Yr. Mr. Longueil in charge

Sophomore Courses

English 1A-1B is prerequisite to all sophomore courses in English except course 40.

31. Intermediate Composition. (2) I, II. Mr. Ewing in charge

36A. Survey of English Literature, 1500 to 1700. (3) I, II. Mr. Rolfe in charge

36B. Survey of English Literature, 1700 to 1900. (3) I, II. Mr. Rolfe in charge

40. Introduction to English Literature. (3) I, II. Mr. Ewing, Miss Carhart
Open, without prerequisite, to all students except those who have credit for course 36A-36B.

* Not to be given, 1941-42.

UPPER DIVISION COURSES

Courses 1A-1B and 36A-36B are prerequisite to all upper division courses in English, except 190A-190B, for which only 1A-1B is prerequisite. Students who have not passed English 31 will be admitted to 106A, 106C, and 106F only upon a test given by the instructor.

A. *The Junior Course*: Course 117J. Required of juniors whose major or minor subject is English.

B. *The Type Courses*: Courses 114A-114B, 122A-122B, 125C-125D, and 125G-125H. It is understood that major students in English will take one of these courses.

C. *The Age Courses*: Courses 156, 157, 167, 177, and 187. It is understood that major students in English will take two of these courses.

D. *General Courses*: Courses 106A, 106C, 106F, 110, 111, 115, 130A-130B, 131, 132, 153, and 190A-190B.

E. *The Senior Course*: Course 151L. Required of seniors whose major subject is English.

106A. *The Short Story*. (2) I, II.

Miss Carhart

106C. *Critical Writing*. (2) I, II.

Mr. Downes, Mr. Hooker

106F. *Exposition*. (2) I, II.

Miss Carhart, Mr. Rolfe

110. *Introduction to the English Language*. (3) II.

Mr. Matthews

*111. *The English Language in America*. (3) II.

Mr. Matthews

114A-114B. *English Drama from the Beginning to the Present*. (3-3) Yr.

Miss Campbell, Miss Carhart

115. *Primitive Literature*. (3) II.

Miss MacKenzie

The study of primitive types, such as the fable, folk tale, myth, legend, ballad, and hero tale, as to characteristics and theories of origin and diffusion. The comparative study of typical stories, and the work of collectors and adapters.

117J. *Shakespeare*. (3) I, II.

Miss Campbell, Mr. Longueil, Mr. Buell

A survey of from twelve to fifteen plays, with special emphasis on one chronicle, one comedy, and one tragedy.

122A-122B. *English Poetry from the Beginning to the Present*. (3-3) Yr.

Mr. Longueil

125C-125D. *The English Novel from the Beginning to the Present*. (3-3) Yr.

Mr. Blanchard

*125G-125H. *English Prose from the Beginning to the Present*. (3-3) Yr.

Mr. Ewing

130A-130B. *American Literature*. (2-2) Yr.

Mr. Downes, Mr. Booth

A survey of American literature from the beginning to 1860, and from 1860 to the present day; a study of the chief American writers, with special reference to the development of literary movements and types.

* Not to be given, 1941-42.

131. American Literature: the Flourishing of New England. (3) I.

Mr. Weeter

The study of such figures as Emerson, Hawthorne, Thoreau, Prescott, Longfellow, Lowell, and Holmes, with particular emphasis on the interaction between American and European literature and thought in the period.

132. American Literature: the Age of Exile. (3) II.

Mr. Weeter

American world-wanderers and the American and European environment; the study of such figures as Melville, Bayard Taylor; Lafcadio Hearn and the Orient; Mark Twain, the traveler and critic; Stephen Crane; Henry Adams; Henry James; George Santayana; T. S. Eliot.

151L. Chaucer. (3) I, II.

Mr. Hustvedt, Mr. Longueil, Mr. Matthews

153. Introduction to the Study of Poetry. (3) I, II.

Mr. Longueil, Miss MacKenzie, Miss Carhart

155. Literary Criticism. (3) I, II.

Mr. Blanchard

156. The Age of Elizabeth. (3) I, II.

Miss Campbell

157. The Age of Milton. (3) I, II.

Mr. Hustvedt

167. The Age of Pope and Johnson. (3) I, II.

Mr. Weeter

177. The Romantic Age: 1784-1832. (3) I.

Mr. Longueil

187. The Victorian Age: 1832-1892. (3) II.

Mr. Rolfe

190A. Literature in English from 1900. (2) I.

Mr. Ewing

Criticism; the novel; biography.

190B. Literature in English from 1900. (2) II.

Mr. Ewing

Poetry; the drama; the essay.

199. Special Studies in English. (3) I, II.

Mr. Downes, Mr. Buell

Limited to seniors; may be taken only once for credit.

The topics for 1941-42 are: I, Matthew Arnold (Mr. Downes); II, Wordsworth (Mr. Buell).

COMPREHENSIVE FINAL EXAMINATION

The Comprehensive Final Examination in the undergraduate major in English must be taken at the end of the senior year. It will consist of one two-hour paper and one three-hour paper. The examination will cover English literature from the beginning to 1900. The papers will be set by the examining committee of the department. The student's preparation for this examination will presumably extend throughout the entire college course.

This examination is not counted as part of the 24-unit major but is counted on the 36-unit upper division requirement and on the 120 units required for graduation. It does not affect study-list limits, and should at no time be entered by the student upon his study list. However, the student is advised to limit his program to 13 units during his last semester. Upon his passing the examination the grade assigned by the department will be recorded. Given each semester; credit, 3 units.

GRADUATE COURSES**200. Bibliography. (3) I.**

Mr. Wright

***208. The Development of Modern English. (3) I.**

Mr. Matthews

209. History of the English Language. (3) I.

Mr. Matthews

211A. Old English. (3) I.	Mr. Matthews
211B. Beowulf. (3) II.	Mr. Matthews
212. Middle English Literature. (3) II.	Mr. Matthews
*215. English Literature of the 17th Century. (3) I.	Mr. Hustvedt
*217A-217B. Shakespeare. (3-3) Yr.	Miss Campbell
*222. Shakespearean Tragedy: A Critical Study. (3) I.	Miss Campbell
*223. Shakespearean Comedy: A Critical Study. (3) II.	Miss Campbell
225A-225B. The Ballad. (3-3) Yr.	Mr. Hustvedt
*226. Sir Walter Scott: The Ballads and Romances. (3) II.	Mr. Hustvedt
*227. Early English Metrical Romances. (3) I.	Mr. Hustvedt
230A. American Literature to 1850. (3) I.	Mr. Wecter
230B. American Literature from 1850. (3) II.	Mr. Wecter
231. Marlowe. (3) II.	Miss Campbell
235A. The English Novel: 1700-1750. (3) I.	Mr. Blanchard
235B. The English Novel: 1750-1800. (3) II.	Mr. Blanchard
*239. Milton. (3) II.	Mr. Hustvedt
*242. Fielding. (3) I.	Mr. Blanchard
243. Dryden and His Contemporaries. (3) I.	Mr. Hooker
244. Pope and His Contemporaries. (3) II.	Mr. Hooker
245. Spenser. (3) I.	Miss Campbell
*247. Phases of Neo-Classicism. (3) I.	Mr. Hooker
*248A-248B. English Literary Criticism. (3-3) Yr.	Mr. Blanchard
*250. The Theory of Fiction (1600-1700). (3) II.	Mr. Blanchard
290. Special Problems. (1-6) I, II.	The Staff

PROFESSIONAL COURSE IN METHOD

370. The Teaching of English. (3) I, II. Miss MacKenzie
 May be counted as part of the 18 units in education required for the secondary credential. Required of candidates for the General Secondary Credential in English.

PUBLIC SPEAKING†

LOWER DIVISION COURSES

- 1A-1B. Elements of Public Speaking. (3-3) Beginning each semester.
 Mr. Karr, Mr. Lewis, Mr. Murray, Mr. Vandraegen
 2A-2B. The Fundamentals of Expression and Interpretation. (3-3) Beginning each semester.
 Mrs. Hunnewell, Mr. Freud

* Not to be given, 1941-42.

† The University of California at Los Angeles does not offer a major in public speaking. Students wishing to satisfy the requirement for a major in public speaking are referred to the GENERAL CATALOGUE of the Departments at Berkeley.

- 5A-5B. Principles of Argumentation.** (3-3) Yr. Mr. Lewis
Prerequisite: course 1A-1B and the consent of the instructor.

UPPER DIVISION COURSES

- 110A. Third-Year Public Speaking.** (3) I. Mr. Lewis
Prerequisite: course 5A-5B.
Oral argumentation and debate; preparation of briefs; presentation of arguments.
- 110B. Third-Year Public Speaking.** (3) II. Mr. Lewis
Prerequisite: course 110A and the consent of the instructor.
Practice in extemporaneous speaking; preparation of the occasional address.
- 111C-111D. Literary Interpretation.** (3-3) Yr. Mrs. Hunnewell
Prerequisite: course 2A-2B.
The dramatization of one novel, the oral reading and classroom presentation of selected one-act plays, and the study and abridgment of one three-act play in relation to public reading technique.
- 122. Diction and Voice.** (3) I, II. Mr. Karr
Prerequisite: courses 1A and 2A or the equivalent.
- 155A-155B. Play Production.** (3-3) Yr. Mr. Freud
- 156. Play Directing.** (3) I, II. Mr. Freud
Study and practice in the direction of plays and group activities of a dramatic nature.
- *165. Phonetics and American Pronunciation.** (3) II. _____
May be applied toward the English major. Recommended for graduate students.
- *166. History of Rhetorical Theories.** (3) II. _____
May be applied toward the English major. Recommended for graduate students.
- *170. Introduction to Oratory.** (3) II. _____
- 190A-190B. Forensics.** (1-1) Yr. Mr. Lewis
Prerequisite: the consent of the instructor.

* Not to be given, 1941-42.

FOREIGN LANGUAGE GROUP

GUSTAVE OTTO ARLT, Ph.D., Professor of German (Chairman of the Group).

This group is composed of the departments of Classics, French, Germanic Languages, Italian, and Spanish, and has been organized for the purpose of unifying and coordinating the activities in these fields. Although no attempt is made to curtail the free development of each department, the special committee in charge of the Foreign Language Group endeavors to articulate, for their mutual benefit, the courses and research work of the five departments concerned.

The announcements of the departments comprising this group appear in their alphabetical order.

GENERAL PHILOLOGY AND LINGUISTICS**UPPER DIVISION COURSES**

150. *Introduction to General Language.* (1) I. Mrs. Woodworth
Prerequisite: two years of Latin, or two years each of two other foreign languages.

The interrelation of ancient and modern languages, especially those of common Indo-European origin.

170. *Introduction to Linguistics.* (3) II. Mr. Hoijer
Open to students with majors in English or the foreign languages.

An introduction to the fundamentals of general and historical linguistics, including phonetics; linguistic elements; grammatical categories; linguistic change; dialect geography; language, race, and culture.

ROMANCE LANGUAGES AND LITERATURES**GRADUATE COURSES**

*203A-203B. *Old Provençal: Reading of Texts.* (2-2) Yr. Mr. Templin

*235. *Romance Versification.* (2) I. Mr. Bailiff

*252. *Methodology of Romance Philology: Seminar.* (2) II. Mr. Zeitlin

* Not to be given, 1941-42.

FRENCH

FERNAND BALDENSBERGER, Doctor ès Lettres, Visiting Professor of French.

PAUL PÉRIGORD, Ph.D., Professor of French Civilization.

MYRON IRVING BARKER, Ph.D., Associate Professor of French.

FRANCIS J. CROWLEY, Ph.D., Associate Professor of French.

ALEXANDER GREEN FITE, Ph.D., Associate Professor of French.

MARIUS IGNACE BIENCOURT, Docteur de l'Université de Paris, Assistant Professor of French.

CLINTON C. HUMISTON, Ph.D., Assistant Professor of French (Chairman of the Department).

L. GARDNER MILLER, Docteur de l'Université de Strasbourg, Assistant Professor of French.

HORACE S. CRAIG, Ph.D., Instructor in French.

PAUL BONNET, Lic. ès Lettres, Associate in French.

ALICE HUBARD, M.A., Associate in French.

MADELEINE LETESSIER, A.B., Associate in French.

Letters and Science List.—All undergraduate courses in French are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

Preparation for the Major.—French 1, 2, 3A, 3B, or their equivalents. Two years of high school Latin, or Latin A and B, or the equivalent, must be completed before the beginning of the senior year. History 4A–4B, Philosophy 3A–3B, and a modern language are strongly recommended.

The Major.—Required: twenty-four units of upper division French, including courses 101A–101B, 109A–109B, 112A–112B.

Any of the remaining upper division courses except 109M–109N may be applied on the major. With the permission of the department four units of the twenty-four may be satisfied by appropriate upper division courses in English, German, Greek, Latin, Spanish, Italian, or philosophy.

Students with majors in French will also be required to take a comprehensive examination covering history, geography, literature, and other general information concerning France. Two units credit toward the major will be given for satisfactory record in this examination which will be given on the second Friday in January and on the second Friday in May.

LOWER DIVISION COURSES

The ordinary prerequisites for each of the lower division courses are listed under the description of these courses. Students who have had special advantages in preparation may, upon examination, be permitted a more advanced program; or, such students may be transferred to a more advanced course by recommendation of the instructor.

1. Elementary French. (5) I, II.

Miss Letessier in charge

1A–1B. Elementary French. (3–3). Beginning each semester.

Miss Letessier in charge

This course covers in two semesters the same material as course 1. Students completing 1A–1B are eligible for entrance into course 2.

- 1G. Reading Course for Graduate Students.** (No credit) I. Mr. Miller
Three hours a week.
- 2. Elementary French.** (5) I, II. Miss Letessier in charge
Prerequisite: course A or two years of high school French.
- 3. Intermediate French.** (5) I, II. Mr. Craig in charge
Prerequisite: course 2 or three years of high school French.
- 3A. Intermediate French.** (3) I, II. Mr. Craig in charge
Prerequisite: course 2 or three years of high school French.
- 3B. Intermediate French.** (3) I, II. Mr. Craig in charge
Prerequisite: course 3A or four years of high school French.
- 8A-8B. French Conversation.** ($\frac{1}{2}$ - $\frac{1}{2}$). Beginning each semester.
Miss Letessier in charge
The class meets two hours weekly. Open to students who have completed course 2 or its equivalent with grade of A or B.
- 25. Advanced French.** (5) II. Miss Letessier
Prerequisite: course 3B.
- 25A-25B. Advanced French.** (3-3) Yr. Mr. Miller, Mr. Craig
Prerequisite: course 3B.
- 42A-42B. French Civilization.** (2-2) Yr. Mr. Périgord
Presentation of the larger cultural elements in European history as caused, influenced, diffused, or interpreted by the French people. Lectures in English, reading in French or English.

UPPER DIVISION COURSES

The prerequisite to all upper division courses except 109M and 109N is sixteen units in the lower division, including course 3B with a grade of A or B, or 25A-25B (or 25).

Courses 101A-101B, 109A and 109B are ordinarily prerequisite to other upper division courses.

All upper division courses, with the exception of 109M and 109N are conducted mainly in French.

101A-101B. Composition, Oral and Written. (3-3) Beginning each semester.
Mr. Barker, Mr. Biencourt, Mr. Miller, Mr. Crowley

109A. Survey of French Literature and Culture. (3) I. Mr. Périgord
Limited to major students in French. Not open to students who have taken or are taking courses 109M, 109N.

The Middle Ages, the Renaissance, and the seventeenth century.

109B. Survey of French Literature and Culture. (3) II. Mr. Périgord
Prerequisite: course 109A.

The eighteenth, nineteenth, and twentieth centuries.

109M. A Survey of French Literature and Culture. (3) I. Mr. Craig
Given in English; does not count on the major in French.
Not open to students who have taken or are taking courses 109A, 109B.
The Middle Ages, the Renaissance, and the seventeenth century.

109N. A Survey of French Literature and Culture. (3) II. Mr. Craig
Prerequisite: course 109M.
The eighteenth, nineteenth, and twentieth centuries.

- 112A. The Nineteenth Century. (2) I.** Mr. Périgord
Prerequisite: courses 101A-101B, 109A, and 109B.
From 1789 to 1830.
- 112B. The Nineteenth Century. (2) II.** Mr. Périgord
Prerequisite: course 112A.
From 1830 to 1885.
- *114A-114B. Contemporary French Literature from 1885 to the Present.**
(2-2) Yr. Mr. Fite
- 115A-115B. Modern French Drama. (2-2) Yr.** Mr. Fite
- *116. La Littérature entre les Deux Guerres. (2) I.** Mr. Baldensperger
- 118A-118B. The Sixteenth Century. (2-2) Yr.** Mr. Humiston
- 120A-120B. The Seventeenth Century. (2-2) Yr.** Mr. Baldensperger
- 121A-121B. The Eighteenth Century. (2-2) Yr.** Mr. Crowley
- 130A-130B. Grammar, Composition, and Style. (3-3) Yr.** Mr. Fite
Prerequisite: an average grade higher than C in French courses.
Practice in oral and written composition based on selected models. This course is required of all candidates for the certificate of completion of the teacher-training curriculum, or for the degree of Master of Arts.
- 199A-199B. Special Studies in French. (2-2) Yr.** Mr. Périgord, Mr. Barker
Prerequisite: senior standing and at least twelve units of upper division French.

GRADUATE COURSES

- 201A-201B. Historical Grammar. (2-2) Yr.** Mr. Humiston
History of French forms, sounds and syntax. An elementary knowledge of Latin is indispensable.
- 204A-204B. Voltaire and his Age. (2-2) Yr.** Mr. Crowley
- 206A-206B. Reading and Interpretation of Old French Texts. (2-2) Yr.** Mr. Barker
- 214A-214B. French Versification. (2-2) Yr.** Mr. Biencourt
- *219A. The Origins of Romanticism; its Development to 1824. (2) I.** Mr. Barker
- *219B. Romantic Prose After 1824. (2) II.** Mr. Barker
- 219C. Romantic Drama After 1824. (2) I.** Mr. Barker
- 219D. Romantic Poetry After 1824. (2) II.** Mr. Barker
- *230A-230B. La Critique Littéraire en France au XIX^e Siècle; les Points de Vue et les Hommes. (2-2) II.** Mr. Baldensperger
- 231A-231B. Etudes Littéraires en France au XIX^e Siècle. (2-2) Yr.** Mr. Baldensperger
- 251A-251B. Seminar in Problems and Methods of Comparative Literature. (2-2) Yr.** Mr. Baldensperger
Given in English.

* Not to be given, 1941-42.

- 257A-257B. Seminar in the French Renaissance. (2-2) Yr. Mr. Humiston
 290. Research in French. (1 to 6) I, II. The Staff
 298A-298B. Special Studies in Literary Criticism. (2-2) Yr. Mr. Fite

PROFESSIONAL COURSE IN METHOD

370. The Teaching of French. (3) I. Mr. Crowley
 Prerequisite: courses 101A-101B and 109A-109B, the latter being permitted concurrently.

RELATED COURSES (See page 175)

- *Romance Languages and Literatures 203A-203B. Old Provençal: Reading of Texts. (2-2) Yr. Mr. Templin
 *Romance Languages and Literatures 235. Romance Versification. (2) I. Mr. Bailiff
 *Romance Languages and Literatures 252. Methodology of Romance Philology: Seminar. (2) II. Mr. Zeitlin

* Not to be given, 1941-42.

GEOGRAPHY

GEORGE MCCUTCHEEN MCBRIDE, Ph.D., Professor of Geography (Chairman of the Department).

BURTON M. VARNEY, Ph.D., Associate Professor of Geography.

CLIFFORD M. ZIERER, Ph.D., Associate Professor of Geography.

RUTH EMILY BAUGH, Ph.D., Assistant Professor of Geography.

ROBERT M. GLENDINNING, Ph.D., Assistant Professor of Geography.

MYRTA LISLE MCCLELLAN, B.S., Assistant Professor of Geography, Emeritus.

JOSEPH E. SPENCER, Ph.D., Instructor in Geography.

Letters and Science List.—All undergraduate courses in geography are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

Preparation for the Major.—Required: Geography 1A-1B, 3, and 5B, Geology 5. Recommended: Anthropology 1A-1B, Botany 1A, 36, Economics 1A-1B, Geology 3, one year of history, Physics 1A-1B, Political Science 3A-3B, and at least one modern foreign language, preferably French or German.

The Major.—The minimum requirement for the major is eighteen or twenty-one units of upper division work in geography, including courses 101, 113, and 115, plus six or three units selected from courses in fields approved by the department; a list of such courses may be secured from the departmental adviser.

LOWER DIVISION COURSES

1A-1B. Elements of Geography. (3-3) Beginning each semester.

Mr. Glendinning

Lectures, two hours; laboratory, two hours; field trips in 1B, for which an expenditure of \$2 may be necessary.

Not open for full credit to students who have credit for course 5A.

A study of the elements of geography, followed by a study of the major geographic realms from the standpoint of their distribution and nature.

3. Introduction to Climate and Weather. (3) I, II.

Mr. Varney

A survey of the earth's atmospheric phenomena, with special reference to the causes and regional distribution of climate and weather.

3C. Introduction to Climate and Weather: Laboratory. (1) I, II.

Prerequisite or concurrent: course 3.

Mr. Varney

5A. Economic Geography. (3) I, II.

Mr. Spencer

Limited to prospective majors in economics and business administration. Not open to students who have credit for course 1A-1B. Students who have credit for course 1A or 1B will receive only 1½ units of credit for course 5A.

A brief study of those elements of the natural environment essential to the geographic interpretation of economic activities, and a regional survey of the world's agricultural productions.

5B. Economic Geography. (3) I, II.

Mr. Spencer

Prerequisite: course 5A or 1A-1B.

The principles of economic geography as developed through studies both of representative regions and the growth of modern trade and industry.

UPPER DIVISION COURSES

100. Principles of Geography. (3) I, II.

Prerequisite: senior standing, or candidacy for a teaching credential.

Not open to those who have credit for course 1A-1B or 5A-5B; may not be counted on the major in geography.

A brief survey of the fundamental factors of physical environment as they affect life on the earth and the activities of man.

101. Fundamentals of Geographic Field Work. (3) II.

Mr. Spencer

Saturdays.

Prerequisite: course 1A-1B or 5A-5B, and the consent of the instructor.

Selected field studies in the Los Angeles area. The course affords training in field mapping of rural and urban types and in techniques of area analysis. To be taken by major students normally in the junior year.

105. Cartography. (3) II.

Prerequisite: course 1A-1B, 5A-5B, or 100, and the consent of the instructor.

Practical map making, map reading, and graphic representation of geographic data.

108. The Geographic Basis of Human Society. (3) I, II.

Miss Baugh

Prerequisite: course 1A-1B, 5A-5B, or 100.

The geographic element in the evolution of primitive cultures and of advanced civilizations. A study of various types of physical habitat in relation to social organization and institutions, together with the corresponding human culture.

111. The Conservation of Natural Resources. (3) I.

Mr. Zierer

Prerequisite: course 1A-1B, 5A-5B, or 100.

Discussion of current problems in the United States arising in connection with the utilization of lands for forestry, grazing, recreation, agriculture, mining, and other uses.

113. General Climatology. (3) I, II.

Mr. Varney

Prerequisite: course 1A-1B or 5A-5B; 3 is especially desirable.

A study of the causes of climatic phenomena and of the larger features which characterize the climates of the earth. To be taken by major students normally in the junior year.

***114A. Regional Climatology: Latin America.** (3) I.

Mr. Varney

Prerequisite: course 113.

A study of the various types of climate, with reference to their underlying causes and to the effects of climate on man in the region.

114B. Regional Climatology: Anglo-America. (3) II.

Mr. Varney

Prerequisite: course 113.

A study of the various types of climate, with reference to their underlying causes and to the effects of climate on man in the region.

115. Physical Bases of Geography. (3) I.

Mr. Glendinning

Prerequisite: course 1A-1B or 5A-5B.

A study of the basic physical factors existing in each of the major geographic realms, with special emphasis on the interrelationships of land forms, soils, drainage, and natural vegetation. One or two field trips may be required. To be taken by major students normally in the junior year.

* Not to be given, 1941-42.

- 117. Geographical Aspects of Land Planning. (3) II.** Mr. Glendinning
Prerequisite: course 1A-1B or 5A-5B, and the consent of the instructor.
A study of the role of the geographic discipline in land planning activities. Normally limited to ten students.
- 121. The Geography of Anglo-America. (3) I.** Mr. Zierer
Prerequisite: course 1A-1B, 5A-5B, or 100.
Delimitation and analysis of the principal economic geographic divisions of the United States, Canada, and Alaska.
- 122A. The Geography of Latin America. (3) I.** Mr. McBride
Prerequisite: course 1A-1B, 5A-5B, or 100.
A study of the physical conditions characterizing the countries of South America, particularly in relation to the life of the inhabitants.
- 122B. The Geography of Latin America. (3) II.** Mr. McBride
Prerequisite: course 1A-1B, 5A-5B, or 100.
A study of the physical conditions characterizing Mexico, Central America, and the West Indies, particularly in relation to the life of the inhabitants.
- 123A. The Geography of Europe. (3) I.** Miss Baugh
Prerequisite: course 1A-1B, 5A-5B, or 100.
The effect of geographic conditions upon the economic status, political problems, and distribution of population in the Atlantic states of Europe.
- 123B. The Geography of Europe. (3) II.** Miss Baugh
Prerequisite: course 1A-1B, 5A-5B, or 100.
The effect of geographic conditions upon the economic status, political problems, and distribution of population in eastern and southern Europe.
- 124A. The Geography of Asia. (3) I.** Mr. Spencer
Prerequisite: course 1A-1B, 5A-5B, or 100.
A study of the geographic and cultural factors important to an understanding of the economic, social, and political geography of southwestern Asia, India, and the East Indies during historic and modern times.
- 124B. The Geography of Asia. (3) II.** Mr. Spencer
Prerequisite: course 1A-1B, 5A-5B, or 100.
A study of the geographic and cultural factors important to an understanding of the economic, social, and political geography of the Far East, particularly China and Japan, during historic and modern times.
- 125. The Geography of Australia and Oceania. (3) II.** Mr. Zierer
Prerequisite: course 1A-1B, 5A-5B, or 100.
A regional synthesis of the physical and human features which characterize Australia and New Zealand, Hawaii and the islands of the South Pacific.
- 131. The Geography of California. (3) I, II.** Miss Baugh
Prerequisite: course 1A-1B, 5A-5B, or 100.
An analysis of geographic conditions in the seven major provinces of California. Utilization of resources, routes of communication, location of settlements and distribution of population in their geographical and historical aspects. A two-day field trip is taken for study of geographical conditions in several of these provinces.
- 155. Urban Geography. (3) II.** Mr. Zierer
Prerequisite: course 1A-1B, 5A-5B, or 100.
A study of cities from the viewpoint of location, form, and functional evolution. The physical and economic phases are emphasized.

171A. The Geographic Setting of American History. (3) I. Mr. McBride
Prerequisite: course 1A-1B, 5A-5B, or 100 and a university course in American history.

A study of the relation of the physical environment to the historical development of the peoples inhabiting Anglo-America.

171B. The Geographic Setting of American History. (3) II. Mr. McBride
Prerequisite: course 1A-1B, 5A-5B, or 100 and a university course in American history.

A study of the relation of the physical environment to the historical development of the peoples inhabiting Latin America.

173. The Historical Geography of the Mediterranean Region. (2) II.

Prerequisite: course 1A-1B, 5A-5B, or 100. Miss Baugh

A study of the geographic factors operative in the Mediterranean lands, particularly their influence on ancient history and on modern political problems.

181. Current Problems in Political Geography. (3) I, II. Mr. McBride

Consideration of the geographical basis of selected problems in domestic and international affairs, with stress upon the geographic principles involved.

199. Problems in Geography. (3) I, II. Mr. McBride and the Staff

Open only to seniors and graduate students who have the necessary preparation for undertaking semi-independent study of a problem. Registration only after conference with the instructor in whose field the problem lies.

GRADUATE COURSES†

250. The Growth of Geographic Thought: Seminar. (3) II. Mr. Zierer

256. Seminar in Anglo-American Geography. (3) I. Mr. Zierer
For 1941-42: The Northwest.

257. Seminar in Latin American Geography. (3) II. Mr. McBride
For 1941-42: Possible colonization lands in Latin America.

258. Seminar in California Geography. (3) I. Miss Baugh
For 1941-42: The basin and range province of California.

261. Seminar in Climatology. (3) I. Mr. Varney
For 1941-42: Problems in the climatology of the western United States.

***262. Land Forms and their Geographic Significance; Seminar. (3) II.**

Mr. Glendinning
275. Advanced Field Problems in Local Geography. (3) I, II.

Mr. Glendinning, Mr. Zierer
290. Research in Geography. (3 or 6) I, II.

Miss Baugh, Mr. Glendinning, Mr. McBride, Mr. Varney, Mr. Zierer
Investigation subsequent to, and growing out of, any of the above seminars.

* Not to be given, 1941-42.

† Requirements for the master's degree in geography may be met by either Plan I or Plan II.

Plan I, required of those preparing for advanced professional positions, must include three of the following seminars: 250, 256 or 257 or 258, 261 or 262, 275, and a thesis.

Plan II, required (unless the student elects Plan I) of those preparing for positions below the junior college level, must include three of the following seminars: 250, 256 or 257 or 258, 261 or 262, 275, and a comprehensive examination.

PROFESSIONAL COURSE IN METHOD

***370. The Teaching of Geography. (3) II.**

Limited to twenty students, registration to be made only after consultation with the instructor. This course may be counted on the unit requirement in education for the general secondary teaching credential.

The fundamental purposes of geography as an instrument of instruction; changing points of view; the basic principles; the various methods of presentation; the use of materials in the presentation of the subject.

* Not to be given, 1941-42.

GEOLOGY

JAMES GILLULY, Ph.D., Professor of Geology.

U. S. GRANT, Ph.D., Professor of Geology (Chairman of the Department).

WILLIAM JOHN MILLER, Ph.D., Sc.D., Professor of Geology.

M. N. BRAMLETTE, Ph.D., Associate Professor of Geology.

JOSEPH MURDOCH, Ph.D., Associate Professor of Geology.

EDGAR K. SOPER, Ph.D., Associate Professor of Geology.

CORDELL DURRELL, Ph.D., Assistant Professor of Geology.

WILLIAM C. PUTNAM, Ph.D., Assistant Professor of Geology.

ROBERT W. WEBB, Ph.D., Assistant Professor of Geology.

Preparation for the Major.—Geology 5, 3; Mineralogy 3A-3B; Chemistry 1A-1B; Physics 2A-2B; Mechanical Engineering D or equivalent; Mathematics 8, and C or 3A; Civil Engineering 1LA-1LB, 1FA-1FB (geology section). Recommended: English 1A-1B; a reading knowledge of German and French is essential for advanced work. Certain lower division requirements may be postponed to the upper division by permission of the department.

The Major.—A minimum of twenty-five units of upper division courses, including Geology 102A-102B, 103, 107, 116, and 118 or 199A-199B; Paleontology 111A-111B. Mathematics 3A-3B is also required. The department will certify to the completion of a major program for graduation only on the basis of at least C grades in Geology 102B and 103.

Students whose major interests lie in the fields of mineralogy, petrology, petrography, economic geology, petroleum geology, stratigraphic geology, or geomorphology and who expect to continue work for the master's degree should complete also Mathematics 4A in their undergraduate program, since this is required for the higher degree. Mathematics 4B (or 109), 119, Physics 105, and Chemistry 109A-109B, 120 are also recommended for students in the fields named above.

Students whose major interests lie in the fields of paleontology or historical geology and who expect to continue work for the master's degree should complete Zoölogy 1A-1B, 112, and Oceanography 110 in their undergraduate program since these are required for the higher degree. Zoölogy 104 is also recommended for such students.

Oral and written proof of ability to use the English language adequately and correctly must be furnished to the department. Each program for a major is to be made out in accordance with some definite plan approved by the department.

Laboratory Fees.—Geology 118, \$35; Mineralogy 3A, 3B, \$2.

GEOLOGY

LOWER DIVISION COURSES

2. General Geology: Physiographic. (3) I, II.

Mr. Miller, Mr. Soper, Mr. Putnam, Mr. Webb

Half-day field trips are required.

Not open to students who have taken or are taking course 5.

An elementary course dealing with the earth's surface features and the geological laws governing their origin and development.

This course duplicates course 1C offered in previous years.

- 2L. General Geology: Laboratory.** (1) I, II. Mr. Webb
 Prerequisite: course 2 (may not be taken concurrently).
 Open only to students who have completed course 2 or 1A offered in previous years and who must have credit for course 5 or its equivalent.
 Laboratory practice in physical geology.
- 3. General Geology: Historical.** (3) I, II. Mr. Miller
 Prerequisite: course 2 or 5.
 A study of the geological history of the earth and its inhabitants, with special reference to North America.
 This course duplicates course 1B offered in previous years.
- 5. General Geology: Dynamical and Structural.** (4) I, II. Mr. Murdoch, Mr. Webb
 Lectures, three hours; laboratory, three hours. Field trips will be taken in laboratory time.
 Prerequisite: elementary chemistry.
 Not open to students who have taken or are taking course 2 or who have credit for course 1A.
 A study of the materials and structures of the earth and the processes and agencies by which the earth has been and is being changed.

UPPER DIVISION COURSES

- 102A. Field Geology.** (3) I. Saturdays. Mr. Bramlette, Mr. Putnam
 Prerequisite: courses 3, 103 (may be taken concurrently), Civil Engineering 1LA, 1FA, 1LB, 1FB (geology sections).
 Credit toward the major is given only to students who take both 102A and 102B.
 Introduction to field geology. Theory and practice of geologic mapping, and practice in the observation and interpretation of geologic phenomena, entailing weekly field trips into the nearby hills, and occasional longer excursions to points of special interest in a region remarkably rich in geologic features.
- 102B. Field Geology.** (3) II. Saturdays. Mr. Putnam
 Prerequisite: courses 102A, 103 (with a grade of C or higher).
 A continuation of course 102A.
- 103. Introduction to Petrology.** (4) I. Mr. Durrell
 Lectures, two hours; laboratory, six hours.
 Prerequisite: course 5, Mineralogy 3A-3B, and Chemistry 1B (may be taken concurrently).
 The general characteristics, origins, mode of occurrence and nomenclature of rocks, and description of the more common types, accompanied by determinative laboratory practice.
- 106. Economic Geology: Metalliferous Deposits.** (3) II. Mr. Soper
 Prerequisite: courses 3 and 103.
 A systematic study of ore occurrences, and of the genetic processes and structural factors involved; geographic distribution and economic aspects.
- 107. Physical Geology of North America.** (2) II. Mr. Miller
 Prerequisite: course 3.
 A course in advanced general geology with special reference to a regional study of North America.

- 108. Economic Geology: Nonmetalliferous Deposits. (3) I.** Mr. Soper
Prerequisite: course 3.
Geologic occurrence and geographic distribution of the important non-metallic minerals, including coal, petroleum, building stones, clay, limes, gypsum, and fertilizers; special attention is given to strategic war minerals.
- 111. Petroleum Geology. (3) II.** Mr. Soper
Prerequisite: courses 102A, 116.
Geology applied to exploration for petroleum; the geology of the principal oil fields of the world with emphasis upon United States fields; and field methods in oil explorations. Lectures, map work, problems, and field trips to nearby oil fields.
- 116. Structural Geology. (3) I.** Mr. Gilluly
Lectures, two hours; laboratory, three hours.
Prerequisite: courses 102A (which may be taken concurrently), and 103. A working knowledge of descriptive geometry is desirable.
The phenomena of fracture, folding, flow, and the graphic solution of problems.
- 117. Geomorphology. (3) II.** Mr. Putnam
Lectures, two hours; conference, one hour; one or two field trips may be required.
Prerequisite: course 3.
The principles of geomorphology; application to the study of selected regions; map work, reports, and outside readings.
- 118. Summer Field Course. (4)** The Staff (Mr. Putnam in charge)
Six weeks, beginning about June 10 of each year.
Fee, \$35; camp and commissary deposit, \$65.
Prerequisite: course 102B with a grade of at least C.
The chief aim of the course is to develop in the student (1) facility and accuracy in detailed geological mapping and cartography; (2) ability to observe independently and to interpret various types of rocks, structures, physiographic features, and other geological phenomena; and (3) the capacity to execute independently a general geologic survey of a region, determine its history, and prepare a suitable report concerning it. Satisfactory completion of this course satisfies the undergraduate thesis requirements for students whose major is geology.
With the approval of the instructor, this work may be taken for credit during two or more summers, under the designation Geology 118; however, not more than four units of credit so gained will be accepted as a part of the undergraduate major.
- 199. Problems in Geology. (1 to 4) I, II.** The Staff (Mr. Webb in charge)
Open only to seniors who are making geology their major study. Reports and discussions.

GRADUATE COURSES

- 214A-214B. Advanced Petrographic Laboratory. (2-5; 2-5) Yr.**
Prerequisite: Mineralogy 109B. Mr. Gilluly
Igneous rocks.
- *215A-215B. Advanced Petrographic Laboratory. (2-5; 2-5) Yr.**
Prerequisite: Mineralogy 109B. Mr. Gilluly
Metamorphic rocks.

* Not to be given, 1941-42.

236. **Physical Geology of California.** (3) I. Mr. Miller
237. **Paleontology and Stratigraphy of California.** (3) II. Mr. Grant
251. **Seminar in Petrology.** (3) II. Mr. Miller
Advanced study of igneous and metamorphic rocks with emphasis on petrogenesis.
252. **Seminar in Geomorphology.** (3) I. Mr. Putnam
Emphasis on general principles and regional studies.
258. **Seminar in Stratigraphy.** (3) I. Mr. Bramlette
- 260A-260B. **Seminar in Structural Geology.** (3-3) Yr. Mr. Gilluly
The second semester of this course may be taken without the first.
263. **Seminar in Economic Geology of Non-metallic Deposits.** (3) I. Mr. Soper
264. **Seminar in Economic Geology of Metallic Deposits.** (3) II. Mr. Soper
299. **Research in Geology.** (1 to 6) I, II. The Staff (Mr. Gilluly in charge)

MINERALOGY

LOWER DIVISION COURSE

- 3A-3B. **Introduction to Mineralogy.** (3-3) Yr. Mr. Murdoch, Mr. Webb
Lecture, one hour; laboratory, six hours; discussion, one hour (3A only).
Fee, \$2 a semester.
Prerequisite: elementary chemistry and physics; Geology 5 (may be taken concurrently with 3A); or the consent of the instructor.
Lectures and laboratory practice in crystal morphology and projection, determination of minerals by their physical and chemical properties, and descriptive mineralogy.

UPPER DIVISION COURSES

101. **Paragenesis of Minerals.** (2) II. Mr. Murdoch
Prerequisite: course 3A-3B, Chemistry 1A-1B.
- 109A. **Optical Mineralogy and Petrography.** (2) I. Mr. Durrell
Laboratory, six hours.
Prerequisite: course 3B; Geology 103 (which may be taken concurrently).
Study of the optical properties of minerals; mineral recognition under the microscope. The study and description of rocks, and their microscopic characters.
- 109B. **Optical Mineralogy and Petrography.** (4) II. Mr. Durrell
Lecture, one hour; laboratory, nine hours.
Prerequisite: course 109A.
A continuation of course 109A.
110. **Mineral Grain Analysis.** (3) II. Mr. Bramlette
Lecture, one hour; laboratory, six hours.
Prerequisite: courses 109A, 109B (may be taken concurrently).
Methods in identification of minerals in grains; special emphasis on the clastic rocks, including mechanical analysis and immersion methods.

GRADUATE COURSES

281. **Problems in Mineralography.** (2 to 4) I. Mr. Murdoch
282. **Problems in Goniometry.** (2 to 4) II. Mr. Murdoch

PALEONTOLOGY

UPPER DIVISION COURSES†

- 111A-111B. **Systematic Paleontology.** (3-3) Yr. Mr. Grant
Lectures, two hours; laboratory, three hours.
Prerequisite: Geology 3 or Paleontology 1.
A general introduction to the study of invertebrate fossils.
114. **Micropaleontology.** (3) I. Mr. Bramlette
Lecture, one hour; laboratory, six hours.
Prerequisite: Paleontology 111A-111B and Geology 102A, 102B.
A study of the microscopic fossils with special reference to age determination and correlation of strata in application to oil-field problems.
150. **Advanced Micropaleontology.** (3) II. Mr. Bramlette
Lecture, one hour; laboratory, six hours.
Prerequisite: course 114.

GRADUATE COURSES

215. **Systematic Conchology and Echinology.** (3) I. Mr. Grant
Lecture, one hour; laboratory, six hours.
Prerequisite: course 111A-111B, Geology 3.
An introduction to the classification and identification of the western American marine Cenozoic mollusca and echinoidea.
- *266. **Seminar in Micropaleontology.** (3) II. Mr. Bramlette
Prerequisite: course 114.

* Not to be given, 1941-42.

† Courses in vertebrate paleontology may be found under the announcement of the Department of Zoology (p. 273).

GERMANIC LANGUAGES

GUSTAVE OTTO ABLT, Ph.D., Professor of German (Chairman of the Department).

ALFRED KARL DOLCH, Ph.D., Associate Professor of German.

FRANK HERMAN REINSCH, Ph.D., Associate Professor of German.

WILLIAM J. MULLOY, Ph.D., Assistant Professor of German.

ERIK WAHLGREN, Ph.D., Assistant Professor of German and Scandinavian.

WAYLAND D. HAND, Ph.D., Instructor in German.

VERN W. ROBINSON, Ph.D., Instructor in German.

CARL W. HAGGE, M.A., Associate in German.

CHRISTEL B. SCHOMAKER, M.A., Associate in German.

BERT JOHN VOS, Ph.D., Research Associate in German.

Letters and Science List.—All undergraduate courses in German and Scandinavian Languages are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

Preparation for the Major.—Required: courses 1, 2, 3 (3A, 3B), 6, and 7 or their equivalents. Recommended: History 4A-4B, English 1A-1B, Philosophy 3A-3B.

The Major.—Twenty-four units in upper division courses, of which ten units must be in junior courses, including 106A, 106B, and either 109A or 109B; the balance must be made up from senior courses, including 117, 118A, and 118B. Students looking forward to the secondary credential should take also 106C-106D. Students desiring a purely literary or philological major, not looking toward secondary teaching, should consult the departmental adviser regarding permissible substitutions of courses. A comprehensive final examination is required at the end of the senior year.

The Comprehensive Final Examination.—The comprehensive final examination in the undergraduate major in German must be taken at the end of the senior year. This examination will cover German literature from the beginnings to the present and will be divided into two sections of three hours each. In order to insure adequate preparation a program of tutorial aid is offered the student. A reading list is provided for which the student will be held responsible. Through conferences with individual candidates the staff of the department will provide assistance in the interpretation of works read outside of courses.

This examination is not counted as part of the 24-unit major but is counted on the 36-unit upper division requirement and on the 120 units required for graduation, and the grade assigned by the department will be recorded for the student. The examination is given each semester and carries 3 units of credit.

Requirements for Admission to Graduate Courses.

A candidate for admission to graduate courses in Germanic languages and literatures must meet, in addition to the general University requirements, the minimum requirements for an undergraduate major in this department. If the candidate is deficient in this prerequisite he must fulfill it by undergraduate work which is not counted toward his graduate residence.

Requirements for Advancement to Candidacy.

1. A reading knowledge of French.
2. A satisfactory reading and speaking knowledge of German.
3. A preliminary comprehensive examination in German literature, language, and history.

Requirements for the Master's Degree.

For the general requirements, see page 107. The Department of Germanic Languages favors the Comprehensive Examination Plan.

Requirements for the Ph.D. Degree.

For the general requirements see page 110. For the specific departmental requirements see the ANNOUNCEMENT OF THE GRADUATE DIVISION, SOUTHERN SECTION.

GERMAN

LOWER DIVISION COURSES

The ordinary prerequisites for each of the lower division courses are listed under the description of these courses. Students who have had special advantages in preparation may, upon examination, be permitted a more advanced program; or such students may be transferred to a more advanced course by recommendation of the instructor.

1. **Elementary German. (5) I, II.** Mr. Robinson in charge
This course corresponds to the first two years of high school German.
- 1A. **Elementary German. (3) I, II.** Mr. Robinson in charge
This course corresponds to the first year of high school German.
- 1B. **Elementary German. (3) I, II.** Mr. Robinson in charge
This course corresponds to the second year of high school German.
- 1G. **Elementary German for Graduate Students. (No credit.) I.** ———
Three hours a week.
2. **Elementary German. (5) I, II.** Mr. Robinson in charge
Prerequisite: course 1, or courses 1A and 1B, or two years of high school German.
3. **Intermediate German. (5) II.** Mr. Mulloy in charge
Prerequisite: course 2 or three years of high school German.
- 3A. **Intermediate German. (3) I, II.** Mr. Mulloy in charge
Prerequisite: course 2 or three years of high school German.
- 3B. **Intermediate German. (3) I, II.** Mr. Mulloy in charge
Prerequisite: course 3A or four years of high school German.
6. **Review of Grammar, Composition, and Conversation. (2) I, II.** Mr. Dolch in charge
Prerequisite: course 2 or three years of high school German.
7. **Rapid Readings in Nineteenth Century Literature. (2) I, II.** Mr. Reinsch
Prerequisite: course 3B or the equivalent.

25A-25B. Readings in German Cultural History. (3-3) Yr.

Mr. Schomaker

Prerequisite: course 3B or the consent of the instructor.

25T. Scientific German. (3) I, II.

Mr. Robinson

Prerequisite: course 3B or the consent of the instructor.

An introduction to science readings, covering all fields of science, but with special emphasis on the field of each individual student.

42A-42B. German Civilization. (2-2) Yr.

Mr. Wahlgren

Lectures and reports; conducted in English.

A general survey of the development of German civilization in its more important cultural manifestations.

UPPER DIVISION COURSES

The prerequisite for all upper division courses is course 3 (or 3B) or the equivalent. Major students are also required to take course 6.

104A-104B. Readings in the Drama of the Nineteenth Century. (3-3) Yr.

Selected readings from nineteenth century authors. Mr. Robinson

105. Lessings' Life and Works. (3) I.

Mr. Hagne

Lectures and reading of selected texts.

106A-106B. Grammar, Composition, and Conversation. (2-2) Yr.

Mr. Schomaker

106C-106D. Grammar, Composition, and Conversation. (2-2) Yr.

Prerequisite: course 106A-106B.

Mr. Schomaker

***108. Schiller's Life and Works. (3) II.**

Mr. Reinsch

Lectures and reading of selected texts.

109A. Introduction to Goethe. (3) I.

Mr. Reinsch

Goethe's prose.

109B. Introduction to Goethe. (3) II.

Mr. Reinsch

Goethe's *Faust*, Parts I and II.**110. The German Lyric and Ballad. (3) I.**

Mr. Mulloy

Prerequisite: six units of upper division German.

A survey from 1750 to the present.

111. The German Novelle. (3) II.

Mr. Mulloy

Prerequisite: six units of upper division German.

***114. German Literature from 1885 to the Present. (3) II.**

Mr. Hand

Prerequisite: six units of upper division German.

A survey of recent dramatic and narrative literature.

117. History of the German Language. (3) I.

Mr. Dolch

Prerequisite: course 106A-106B.

118A. History of German Literature. (3) I.

Mr. Arlt

Prerequisite: six units of upper division German.

The Middle Ages.

118B. History of German Literature. (3) II.

Mr. Arlt

Prerequisite: six units of upper division German.

From the Reformation to 1850.

* Not to be given, 1941-42.

- 119. Middle High German.** (3) II. Mr. Dolch
 Prerequisite: courses 117 and 118A.
 Outline of grammar, selections from the Nibelungenlied, Kudrun, and the Court Epics.
- 145A-145B. Introduction to Folklore.** (2-2) Yr. Mr. Hand
 Prerequisite: six units of upper division work in English, French, German, Italian, or Spanish, and a reading knowledge of one foreign language. Open to major students in English or in a modern foreign language.
 The various fields of folklore, their literature, and problems.
- 199A-199B. Special Study for Advanced Undergraduates.** (1 to 3) I, II.
 The Staff (Mr. Arlt in charge)
 Topics selected with the approval of the department and studied under the direction of one of the staff.

GRADUATE COURSES

- 201. Bibliography and Methods of Literary History.** (2) I. Mr. Arlt
- *207. Early New High German Language and Literature: 1450-1624.** (3) I.
 Mr. Arlt
- 208. German Literature from Opitz to Bodmer: 1624-1740.** (2) I. Mr. Arlt
- *210A-210B. The Age of Goethe.** (2-2) Yr. Mr. Reinsch
- 212A-212B. The Age of Romanticism.** (2-2) Yr. Mr. Mulloy
- 222. Goethe's *Faust*.** (2) II. Mr. Reinsch
- *225. The Nineteenth Century Drama.** (2) II. ———
- 230. Survey of Germanic Philology.** (3) I. Mr. Dolch
- 231. Gothic.** (3) I. Mr. Dolch
- *232. Old High German.** (3) II. Mr. Dolch
- 233. Old Saxon.** (3) II. Mr. Dolch
- 239. Readings in Middle High German Literature.** (3) II. Mr. Dolch
 Prerequisite: course 119 or its equivalent.
- 245. The Folk Tale.** (2) II. Mr. Hand
 Prerequisite: course 145A or its equivalent.
- 251. Seminar on the Age of Goethe.** (2) I. Mr. Reinsch
- *253. Seminar on the Age of Romanticism.** (2) I. Mr. Mulloy
- 257. Seminar in Sixteenth and Seventeenth Century German Literature.**
 (2) II. Mr. Arlt
- *259. Seminar in Germanic Linguistics.** (1 to 3) I, II. Mr. Dolch
 Prerequisite: course 230 and one dialect or the equivalent.
- 298A-298B. Special Studies.** (1-3; 1-3) Yr. The Staff

* Not to be given, 1941-42.

PROFESSIONAL COURSE IN METHOD

370. The Teaching of German. (3) I.

Mr. Reinsch

Prerequisite: graduate standing in the Department of Germanic Languages.

Required of all candidates for the general secondary credential in German. To be taken concurrently with Education 370.

SCANDINAVIAN LANGUAGES

UPPER DIVISION COURSES

101. Elementary Swedish. (2) I.

Mr. Wahlgren

Prerequisite: junior standing.

102. Intermediate Swedish. (3) II.

Mr. Wahlgren

Prerequisite: course 101 or the equivalent.

103. Elementary Danish and Norwegian. (3) I.

Mr. Wahlgren

104. Intermediate Danish and Norwegian. (3) II.

Mr. Wahlgren

141. Modern Scandinavian Literature in English Translation. (3) II.

No prerequisite; open to all upper division students. Mr. Wahlgren

GRADUATE COURSES

243. Old Icelandic. (3) I.

Mr. Wahlgren

244. Old Norse-Icelandic Prose and Poetry. (2) II.

Mr. Wahlgren

HISTORY

FRANK J. KLINGBERG, Ph.D., Professor of History.

JOSEPH B. LOOKEY, Ph.D., Professor of History.

WALDEMAR WESTERGAARD, Ph.D., Professor of History.

DAVID K. BJORK, Ph.D., Associate Professor of History (Chairman of the Department).

JOHN W. CAUGHEY, Ph.D., Associate Professor of History.

¹BRAINERD DYER, Ph.D., Associate Professor of History.

BOWLAND HILL HARVEY, Ph.D., Associate Professor of History.

ROLAND D. HUSSEY, Ph.D., Associate Professor of History.

LOUIS KNOTT KOONTZ, Ph.D., Associate Professor of History.

ANDRÉ LOBANOV-ROSTOVSKY, Associate Professor of History.

RICHARD O. CUMMINGS, Ph.D., Assistant Professor of History.

CLINTON N. HOWARD, Ph.D., Assistant Professor of History.

KAZUO KAWAI, Ph.D., Assistant Professor of History.

JOHN W. OLMSTED, M.A. (Oxon.), Assistant Professor of History.

LUOY M. GAINES, M.A., Assistant Professor of History, Emeritus.

CHARLES L. MOWAT, Ph.D., Instructor in History.

———, Instructor in History.

GODFREY DAVIES, M.A., (Oxon.), Lecturer in History.

²EDGAR J. GOODSPEED, Ph.D., Lecturer in the History of Religion.

Letters and Science List.—All undergraduate courses in history are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

Preparation for the Major.—Required: (1) courses 4A-4B or 5A-5B, and (2) course 7A-7B or 8A-8B, or equivalent preparation for students transferring from other departments or other institutions. Recommended: Political Science 3A-3B, Political Science 31, 32, Economics 1A-1B, Geography 1A-1B, and Philosophy 3A-3B. One of these recommended courses may be substituted for one of the required history courses, with approval of the department.

Recommended: French, German, Latin, Spanish, Italian, or a Scandinavian language. For upper division work in history, a reading knowledge of one of these is usually essential. For language requirements for graduate work, see ANNOUNCEMENT OF THE GRADUATE DIVISION, SOUTHERN SECTION.

The Major.—Twenty-four units of upper division work in history. The major must include a year sequence in European history and a year sequence in American history. A year sequence in European history may be composed as follows: course 111A-111B, or 121A-121B, or 131A-131B, or 142 and 143, or 143 and 144, or 144 and 145, or 152A-152B, or 153A-153B, or 154 and 155. A year sequence in American history may be composed as follows: course 162A-162B, or 171 and 172, or 172 and 173, or 173 and 174, or 178 and 179, or 178 and 181, or 181 and 188. The major must also include course 199A-199B in a field for which preparation has been made in the junior year. This course may not be entered in February except with the special permission of the instructor.

¹ In residence first semester only, 1941-42; ² in residence second semester only, 1941-42.

Honors in History.—Students who pass with distinction a special honors examination for seniors given each May will be recommended to receive the bachelor's degree with honors or highest honors in history. Special work for students interested in honors is offered in the lower division in connection with courses 4A-4B, 5A-5B, and 8A-8B, and also in upper division year courses (3 units each semester). A special reading course for candidates for honors is given (see History 198). For information about honors work in connection with particular courses consult the instructors in charge. On general aspects of the honors program and examination consult either Mr. Mowat or Mr. Olmsted.

Graduate Work in History.—See the ANNOUNCEMENT OF THE GRADUATE DIVISION, SOUTHERN SECTION, and the ANNOUNCEMENT OF THE SCHOOL OF EDUCATION, LOS ANGELES.

LOWER DIVISION COURSES

- 4A-4B. History of Europe.** (3-3) Yr. Mr. Westergaard
Lectures, two hours; quiz section, one hour.
The growth of European civilization from the decline of the Roman Empire to the present time.
- 5A-5B. History of England and Greater Britain.** (3-3) Beginning either semester. Mr. Howard, Mr. Mowat
Lectures, two hours; quiz section, one hour.
The political, economic, and cultural development of the British Isles and the Empire from the earliest times to the present.
- 7A-7B. Political and Social History of the United States.** (3-3) Yr. Mr. Dyer
Lectures, two hours; discussion section, one hour.
This course is designed for students in the social sciences who want a thorough survey of the political and social development of the United States as a background for their major work and for students in other departments who desire to increase their understanding of the rise of American civilization.
- 8A-8B. History of the Americas.** (3-3) Beginning each semester. Mr. Hussey
Lectures, two hours; quiz section, one hour.
A survey of the history of the Western hemisphere.
- *9A. Great Personalities: United States.** (2) I. Mr. Dyer
- *9B. Great Personalities: Latin America.** (2) II. Mr. Hussey
- 9C. Great Personalities: England.** (2) II. Mr. Harvey, _____
- 9D. Great Personalities: Continental Europe.** (2) I. _____
- 39. Pacific Coast History.** (2) I, II. Mr. Caughey
- 46. Economic History of the United States.** (3) I, II. _____
Primarily for sophomores. Open to other students only with the written consent of the instructor.

UPPER DIVISION COURSES

The prerequisite for all upper division courses is course 4A-4B, or 5A-5B, or 7A-7B, or 8A-8B, or other preparation satisfactory to the instructor.

107. See under History of Science, page 252.

* Not to be given, 1941-42.

- 111A-111B. **Ancient History.** (3-3) Yr. _____
112. **Roman Imperialism.** (3) I. _____
113. **Roman Law.** (3) II. _____
114. **History of the Founding of Christianity.** (2) II. Mr. Goodspeed
- 121A. **The Early Middle Ages.** (3) I. Mr. Bjork
Prerequisite: course 4A-4B or 5A-5B, or the consent of the instructor.
A survey of the main events of European history from the fall of the Roman Empire to about 1150 A.D.
- 121B. **The Civilization of the Later Middle Ages.** (3) II. Mr. Bjork
Prerequisite: course 4A-4B or 5A-5B, or the consent of the instructor.
A survey of European history, 1150-1450, with emphasis upon social, cultural, religious, and economic foundations of western Europe.
- 131A. **Economic History of the Western World.** (3) I. Mr. Harvey
Prerequisite: course 4A-4B or 5A-5B, and Economics 1A-1B.
From early times to 1750.
- 131B. **Economic History of the Western World.** (3) II. Mr. Harvey
Prerequisite: course 4A-4B or 5A-5B, and Economics 1A-1B.
From 1750 to the present, with special emphasis on England, France, and Germany.
- 141A-141B. **Renaissance, Reformation, and Overseas Expansion.** (2-2) Yr. Mr. Olmsted
The social and intellectual history of western Europe from the later Middle Ages to the Thirty Years War.
142. **Europe in the Seventeenth and Eighteenth Centuries.** (3) I. Mr. Olmsted
European society, politics, and international relations from the Thirty Years War and Louis XIV to the Enlightened Despots and the Seven Years War.
143. **Enlightened Despotism, the French Revolution, and Napoleon.** (3) II. Mr. Olmsted
A study of the culture of the Enlightenment and of European politics and international relations from the Seven Years War to the fall of Napoleon.
144. **Europe from Napoleon to the Congress of Paris.** (3) I. Mr. Lobanov
The history of Europe from the rise of Napoleon to the end of the Crimean War; a survey course including the study of international relations and internal conditions of the major European countries with special stress on the rise of nationalism and liberalism.
145. **Europe from the Congress of Paris to the Peace Conference of Versailles.** (3) II. Mr. Lobanov
The history of Europe with special stress on the unification of Germany and Italy, the causes of the World War, and the World War itself.
- 146A. **History of Slavic Europe and the Balkans.** (3) I. Mr. Lobanov
The history of Russia, Bohemia, Poland, Lithuania, and the Balkan nations from the origins to the end of the eighteenth century.

- 146B. History of Slavic Europe and the Balkans. (3) II.** Mr. Lobanov
The history of Russia, Poland, Serbia, Bulgaria, Roumania, and Greece from the Napoleonic period to the present treated in the light of internal conditions and European diplomacy.
- *148A-148B. Diplomatic History of Europe in the Nineteenth Century. (3-3) Yr.** Mr. Lobanov
Open to graduate students, and to seniors with the consent of the instructor.
- 152A-152B. Constitutional History of England. (3-3) Yr.** Mr. Howard
A study of the growth of the institutions of British government.
- 153A-153B. History of the British People in Modern Times. (3-3) Yr.** Mr. Klingberg
A study of the main currents in the thought, culture, and social progress of the British people from Henry VIII to the death of Victoria.
Not open to students who have had courses 154, 155, or 156.
- 154. Great Britain in the Seventeenth Century (1588-1688). (3) I.** Mr. Howard
A study of the various factors in English life, political, social, economic, religious, and intellectual, at the time of the Civil Wars, the Restoration, and the Revolution.
Not open to students who have had 153A.
- 155. Great Britain in the Eighteenth Century (1688-1783). (3) II.** Mr. Howard
The structure of the British government, society, and economic life under the Hanoverians.
Not open to students who have had 153A.
- 157. Great Britain in the Twentieth Century. (3) I.** Mr. Mowat
The changing British scene in war and peace from the accession of Edward VII to the present.
- *158A. History of the British Empire. (3) I.** Mr. Mowat
The old colonial empire to 1783.
- 158B. History of the British Empire. (3) II.** Mr. Mowat
The development of the Empire since 1783, both in its various parts, and in the relationship between Great Britain and the dominions and colonies, with principal reference to Africa, Australasia, and the West Indies.
- 159. History of Canada. (3) I.** Mr. Mowat
A survey of the growth of Canada from its beginnings under the French and British colonial empires into a modern nation-state.
- *161. History of Spain and Portugal. (3) II.** Mr. Hussey
The history of Spain from early times to the present.
- 162A-162B. Hispanic America from the Discovery to the Present. (3-3) Yr.** Mr. Caughey, Mr. Hussey
- 171. The United States: Colonial Period. (3) I.** Mr. Koontz
Political and social history of the Thirteen Colonies and their neighbors; European background, settlement and westward expansion, intercolonial conflicts, beginnings of culture, colonial opposition to imperial authority.

* Not to be given, 1941-42.

- 172. The United States: The New Nation. (3) II.** Mr. Koontz
Political and social history of the American nation from 1750 to 1815, with emphasis upon the rise of the New West; revolution, confederation, and union; the fathers of the Constitution; the New Nationalism.
- 173. The United States: Civil War and Reconstruction. (3) I.** Mr. Dyer
The topics studied will include: the rise of sectionalism, the anti-slavery crusade; the formation of the Confederate States; the war years; political and social reconstruction.
- 174. The United States: the Twentieth Century. (3) II.** ———
A general survey of political, economic, and cultural aspects of American democracy in recent years.
- 178. History of the Foreign Relations of the United States. (3) I.** ———
A general survey of American diplomacy from the Revolution to the Paris Peace Conference of 1919.
- *179. Constitutional History of the United States. (3) II.** Mr. Dyer
Prerequisite: course 7A or 7B or 172, or the consent of the instructor.
A study of the Federal Constitution from the historical point of view with emphasis upon the Constitutional Convention and the constitutional controversies of the nineteenth century.
- 181. The Westward Movement and the West. (3) I.** Mr. Caughey
Recommended preparation: course 8A-8B.
A study of the advance of the American frontier, particularly in the trans-Mississippi West, and an analysis of the distinguishing characteristics of the West in the past half-century.
- 188. History of California. (3) II.** Mr. Caughey
Recommended preparation: course 8A-8B or 39.
The economic, social, intellectual, and political development of California from the earliest times to the present.
- 191A. History of the Far East. (3) I.** Mr. Kawai
China and Japan from the earliest times to the beginning of westernization.
- 191B. History of the Far East. (3) II.** Mr. Kawai
Transformation of the Far East in modern times under the impact of western civilization.
- 196. Early India and the Indies. (3) I.** Mr. Kawai
India from the Vedic period to the decline of the Mogul Empire; colonial rivalries of the European powers in the Indian Ocean area; establishment of the Dutch empire in the East Indies.
- 197. History of British India. (3) II.** Mr. Kawai
History of the British Empire in India, Burma, and Malaya.
- 198. Conferences and Reading for Honors. (2) I, II.**
Mr. Olmsted and Mr. Mowat in charge
Primarily for qualified history majors who intend to take the optional examination for honors in history given each May. Whenever possible students should enroll at the beginning of the junior year. May be taken four times for credit.

* Not to be given, 1941-42.

199A-199B. Special Studies in History. (2-2) Yr.

The Staff

This course may not be entered in February except with the special permission of the instructor. Students expecting to graduate in June should begin the course in September of their senior year. Those graduating in mid-year should begin the course in the final semester of their junior year. This course is required of all history majors.

Section 1. Ancient History.

Section 2. Medieval History.

Section 3. European History.

Section 4. European History.

Section 5. English History.

Section 6. American Colonial History.

Section 7. The American Revolution.

Section 8. United States Reform Movements.

Section 9. Hispanic-American History.

Section 10. United States-Far Eastern Relations

Mr. Bjork

Mr. Westergaard

Mr. Olmsted

Mr. Klingberg

Mr. Koontz

Mr. Mowat

Mr. Harvey

Mr. Hussey

Mr. Kawai

GRADUATE COURSES

***201. Historiography and Bibliography. (3) I.**

Mr. Hussey

254A-254B. Seminar in Medieval History. (3-3) Yr.

Mr. Bjork

257A-257B. Seminar in European History. (3-3) Yr.

Mr. Westergaard

Studies in continental European history prior to 1914.

259A-259B. Seminar in European History. (3-3) Yr.

Mr. Lobanov

260A-260B. Seminar in English History. (3-3) Yr.

Mr. Davies

Studies in the Stuart period.

261A-261B. Seminar in English History. (3-3)

Mr. Klingberg

Studies of England in the 19th century.

262A-262B. Seminar in English History. (3-3) Yr.

Mr. Harvey

Studies in the reform movements of the 19th century.

265A-265B. Seminar in Hispanic-American History. (3-3) Yr.

Mr. Lockey

Studies in the colonial and early national periods.

269A-269B. Seminar in United States History. (3-3) Yr.

Mr. Koontz

Studies in the colonial frontier.

***270A-270B. Seminar in United States History. (3-3) Yr.**

Mr. Hussey

Studies in the Revolutionary era.

271A-271B. Seminar in United States History. (3-3) Yr.

Studies in recent United States history.

272A-*272B. Seminar in United States History. (3-3) Yr.

Mr. Dyer

Studies in political and social problems of the middle 19th century.

274A-274B. Seminar in Pacific Coast History. (3-3) Yr.

Mr. Caughey

290. Research in History. (1 to 6) I, II.

The Staff

PROFESSIONAL COURSE IN METHOD

***370. The Teaching of History and Social Studies. (3) I, II.**

This course may be counted in partial fulfillment of the 18-unit requirement in education for the General Secondary Credential. Recommended to be taken in the senior year.

* Not to be given, 1941-42.

HOME ECONOMICS

HELEN B. THOMPSON, Ph.D., Professor of Home Economics.

GRETA GRAY, Ph.D., Associate Professor of Home Economics (Chairman of the Department).

VERZ R. GODDARD, Ph.D., Assistant Professor of Home Economics.

MARGUERITE G. MALLON, Ph.D., Assistant Professor of Home Economics.

MARTHA E. DAVIS, Ph.D., Instructor in Home Economics.

LEILA M. DOMAN, Ph.D., Instructor in Home Economics.

GLADYS TIMSON STEVENSON, Ph.D., Instructor in Home Economics.

FLORENCE A. WILSON, M.A., Associate in Home Economics.

The College of Applied Arts

The Department of Home Economics offers five majors:

- A. The General Major in Home Economics, for students working toward the general elementary teaching credential, or for those who wish home economics as a background for homemaking.

Preparation for the Major.—Courses 1A-1B, 11A-11B; Art 21, 42; Chemistry 2A-2B, 10.

The Major.—Courses 108, 118, 120, 143, 162A-162B, 168; eight units selected from courses 105, 125, 150, 164A-164B, 175; and twelve units selected from the courses listed in one of the following groups: Group I, Art 101A-101B, 132A-132B, 139A-139B, 156A-156B, 168A, 173, 180, 183A-183B; Group II, Psychology 107A-107B, 110, 112, 135, 137A-137B, 145A-145B; Group III, Physical Education for Women 104A-104B, 114A-114B, 120, 133, 135, 192A-192B (or 193); Group IV, Zoölogy 101, 104, 105, 106, 112, 113, 113C, 115, 115C; Group V, Economics 100A, 100B, 106, 107, 150, Geography 100, 108, 113, 114.

- B. The Major for Prospective Home Economics Teachers.

Preparation for the Major.—Courses 1A-1B, 11A-11B; Art 2A or 42, 21; Chemistry 1A-1B, 10.

The Major.—Courses 108, 118, 120, 143, 150, 162A-162B, 164A-164B, 168, 175; at least four units chosen from courses 105, 110, 119, 125, 136A-136B, 159, 199A-199B; and six additional units to be selected from Art 101A-101B, 156A-156B, Physical Education for Women 104A-104B, Psychology 110, 112.

- C. The Dietetics Major, for students preparing for dietetic internships.

Preparation for the Major.—Course 11A-11B; Bacteriology 1, Business Administration 1A, Chemistry 1A-1B, 8, Economics 1A-1B, English 1A-1B or Public Speaking 1A-1B, Physiology 1, Psychology 21, 22.

The Major.—Courses 110, 118, 119, 120, 125, 136A-136B, 159, 370 (or Psychology 110), Business Administration 153, 180; and four units chosen from courses 105, 143, 150, Economics 150, Psychology 112, Public Health 101A-101B.

- D. The Major in Food and Nutrition, for students preparing for promotional work with food or utility companies.

Preparation for the Major.—Course 11A-11B, Art 2A or 42, Business Administration 1A, Bacteriology 1, Chemistry 1A-1B or 2A-2B, 8 or 10, Economics 1A-1B, English 1A, Public Speaking 1A, Physics 4A-4B, Physiology 1.

The Major.—Courses 110, 118, 120, 125, 136A–136B, 162A–162B, Business Administration 140, 180, 185; and five units selected from courses 119, 150, 159, 199A–199B, Psychology 101.

The minor should be chosen after consultation with the departmental adviser. E. The Major in Foods and Nutrition, for students preparing for graduate work or research positions.

Preparation for the Major.—Course 11A–11B, Bacteriology 1, Chemistry 1A–1B, 8, Mathematics 7 (or Statistics 1), 8, Physics 2A–2B, Physiology 1.

The Major.—Courses 110, 118, 119, 120, 125, 159, 199 (4 units or more); Physics 112, 113, 113C; the remainder of the 36-unit major to be selected from courses 105, 143, 150, Bacteriology 103, 105, Physics 110A–110B, 115.

The minor should be in chemistry and should include Chemistry 6 (taken in the upper division) and either Chemistry 109A–109B or Chemistry 9 (taken in the upper division) and one of Chemistry 101, 102.

The College of Letters and Science

Letters and Science List.—All undergraduate courses except 108, 125, 150, and 175 are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

Laboratory Fees.—Courses 1A, 11B, 175, \$1.50; 136A, 136B, 199A, 199B, \$2; 108, 110, 119, 120, 159, \$3; 11A, 104, 125, 150, \$4.

LOWER DIVISION COURSES

1A. Elementary Clothing. (3) I, II.

Miss Wilson

Prerequisite: matriculation credit in "clothing" or Art 2A or 42. Fee, \$1.50.

Fundamental problems of clothing construction, including the use of commercial patterns and the selection, care, and use of equipment.

1B. Elementary Clothing. (3) I, II.

Miss Wilson

Prerequisite: course 1A.

Problems involved in clothing and textile buying; an elementary study of textiles, with attention to prices, quality differences, consumer aids, labels, advertising, and the selection of suitable textiles and designs.

11A. Elementary Food. (3) I, II.

Miss Davis

Prerequisite: high school chemistry or Chemistry 1A or 2A. Fee, \$4.

The classification, occurrence, and general properties of foodstuffs; the principles involved in food preparation and preservation; compilation of recipes; practice in judging food preparations and in meal service.

11B. Food Economics. (3) I, II.

Mrs. Stevenson

Prerequisite: course 11A. Fee, \$1.50.

The production, transportation, and marketing of food materials; the legal and sanitary aspects of food products handled in commerce; prices in relation to grades and standards.

32. Elements of Nutrition. (2) I, II.

Miss Thompson, Miss Goddard

Prerequisite: six units of natural science.

The principles of nutrition and their application in normal conditions of growth and physical development. Family food budgets and food habits in relation to nutritive requirements.

UPPER DIVISION COURSES

- 104. Food Principles and Economics.** (3) I, II. Miss Thompson
Prerequisite: Chemistry 1A or 2A-2B. Fee, \$4.
A study of the composition of food, the principles involved in its preparation, and the processing and marketing of food products.
Not open to students who have taken course 11A-11B.
- 105. Survey of Dietaries.** (3) I, II. Miss Thompson
Prerequisite: course 11A-11B, or 104 and 118, or 32 with the consent of the instructor.
Surveys and compilations of dietaries with reference to cost of materials and to nutritive standards for normal health.
- 108. Textiles.** (2) I, II. Mrs. Stevenson
Prerequisite: course 1B, Chemistry 10. Fee, \$3.
A study of chemical and physical properties of textile materials with opportunity to apply textile analysis to problems in retail buying.
- 110. Food Analysis.** (3) I, II. Miss Goddard
Prerequisite or concurrent: course 118. Fee, \$3.
The application of qualitative and quantitative methods to the study of foods.
- 118. Nutrition.** (3) I, II. Miss Mallon
Prerequisite: Chemistry 8 or 10, Physiology 1.
The chemistry of digestion and the metabolism of carbohydrates, fats, and proteins; a study of minerals and vitamins in relation to human nutrition.
- *119. Nutrition Laboratory.** (2) II. Miss Mallon
Prerequisite or concurrent: course 118. Fee, \$3.
A chemical study of the components of food, the products of digestion, and the constituents of tissues.
- 120. Diet in Health and Disease.** (3) I, II. Miss Mallon
Prerequisite: courses 11A, 11B, 110, and Chemistry 8 or 10. Fee, \$3.
Human requirements for dietary essentials for infancy, childhood, adult life; dietary calculations; modification of normal diet for specific diseases.
- 125. Experimental Cookery.** (3) I. Miss Davis
Prerequisite: course 11A and 110, or Chemistry 9. Fee, \$4.
Quantitative methods in food preparation under controlled conditions.
- 136A-136B. Institution Economics.** (3-3) Yr. Miss Davis
Prerequisite: course 11B and Economics 1A-1B. Fee, \$2 a semester.
The economic principles and problems involved in the organization and administration of institution households such as residence halls, hotels, hospitals, and school lunchrooms.
- 143. Child Care.** (2) I, II. Mrs. Stevenson
Prerequisite: Psychology 21, 22; Physiology 1.
Physical development of children from prenatal through adolescent life.
Discussion of problems concerned with the care of children in the home.

* Not to be given, 1941-42.

- 150. Family Food Service. (3) I.** Mrs. Stevenson
 Prerequisite: courses 11A-11B (or 104), 118, Art 2A.
 Organization and management of family food service at different economic levels. Emphasis is placed on standard products, meal service, use and care of kitchen and dining equipment.
- 159. Metabolism Methods. (3) I, II.** Miss Goddard
 Prerequisite: course 110 or the equivalent. Fee, \$3.
 Observations of the influence of special diets upon various phases of metabolism; practice in the methods of determining blood constituents, basal metabolic rate, and nitrogen and mineral excretions.
- 162A. The Economic Problems of Families. (2) I, II.** Miss Gray
 Prerequisite: Economics 1A-1B, or six or more units of home economics.
 Distribution of families as to size, composition, domicile, income, and expenditures. Economic and social developments which have influenced the activities of the members of the household and brought about changes in the family's economic problems and standards of living.
- 162B. Management of Individual and Family Finances. (2) I, II.** Miss Gray
 Prerequisite: Economics 1A-1B, or six or more units of home economics.
 Methods of payment for goods, budgeting, property laws, investments, and insurance; the business cycle as a factor in financial planning.
- 164A-164B. Housing. (2-2) Yr.** Miss Gray
 The contemporary housing situation, essentials of healthful housing, improvement in housing, and municipal, state, and federal activities.
- 168. Family Relationships. (2) II.** Miss Doman
 Discussions of the contributions of the family to personal and group well-being, of problems of the modern family, and of bases for satisfying family relationships and for successful family life.
- 175. Dress Design. (3) II.** Miss Wilson
 Prerequisite: course 1A, Art 21. Fee, \$1.50.
 A study of individual fitting and design problems. Development of designs by modeling on the dress form and use of block patterns.
- 199A-199B. Problems in Home Economics. (2-4; 2-4) Yr.** The Staff
 Prerequisite: senior standing with such special preparation as the problem may demand. Section 1, field investigations and statistical studies; the expense of the problem to be met by the student. Section 2, laboratory; fee, \$2 a semester.
 Assigned problems for individual investigation, the work of each student to be directed by the instructor in whose division of the field the problem lies.

GRADUATE COURSES

- 251. Seminar in Nutrition. (2) I.** Miss Mallon
 Recent advances in the science of nutrition and in the dietetic treatment of disease.
- 260. Nutrition and Growth of the Child. Seminar. (2) II.** Mrs. Stevenson
 A critical study of the reports of recent investigations concerning the physical growth and nurture of children.

***262. Personal and Family Economics. Seminar. (2) II.** Miss Gray
Review of budget studies representative of various levels of living and of those based on quantity budgets.

282A-282B. Selected Problems. (2-4; 2-4) Yr.
Miss Thompson, Miss Gray, Miss Goddard, Miss Mallon
Laboratory or field investigation in nutrition, foods, or household economics.

PROFESSIONAL COURSE IN METHOD

870. Principles of Home Economics Teaching (3) I. Miss Doman
Prerequisite: courses 1A, 1B, 11A, 11B, 143, 168.
The development of home economics as an educational movement; homemaking courses and their presentation in high schools; homemaking activities in the elementary school; critical review of texts and references in relation to curriculum requirements in different types of schools.

* Not to be given, 1941-42.

ITALIAN*

CÉSAR BARJA, Doctor en Derecho, Professor of Spanish (Chairman of the Department of Italian).

CHARLES SPERONI, Ph.D., Assistant Professor of Italian.

PERINA PIZIALI, M.A., Associate in Italian and Associate in Clinical Psychology.

FRANCO BRUNO AVERARDI, J.D., Ph.D., Lecturer in Italian.

Letters and Science List.—All undergraduate courses in Italian are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

LOWER DIVISION COURSES

1. **Elementary Italian.** (5) I, II. Mr. Speroni, Miss Piziali
Essentials of grammar; reading of easy texts.
- 1A-1B. **Elementary Italian.** (3-3) Yr. Mr. Averardi
This course covers in two semesters the work of course 1.
2. **Elementary Italian.** (5) I, II. Mr. Speroni
Prerequisite: course 1, or one year of high school Italian.
- 3A. **Intermediate Italian.** (3) I, II. Mr. Averardi
Prerequisite: course 2, or two years of high school Italian.
- 3B. **Intermediate Italian.** (3) II. Mr. Averardi
Prerequisite: course 3A, or three years of high school Italian.
- 42A-42B. **Italian Civilization.** (2-2) Yr. Mr. Averardi
Given in English; not open to students who have taken or are taking course 103A-103B.

UPPER DIVISION COURSES

Sixteen units of lower division courses in Italian are required for admission to any upper division course. All upper division courses are conducted mainly in Italian.

- 101A-101B. **Composition, Oral and Written.** (3-3) Yr. Mr. Speroni
- 103A-103B. **Survey of Italian Literature.** (3-3) Yr. Mr. Averardi
- 109A-109B. **Dante's Divina Commedia.** (3-3) Yr. Mr. Averardi
Prerequisite: six units of upper division Italian, or the equivalent.

* The University of California at Los Angeles does not offer a major in Italian. Students wishing to satisfy the requirement for a major in Italian are referred to the *General Catalogue* of the Departments at Berkeley.

LIFE SCIENCES GROUP

LOYE HOLMES MILLER, Ph.D., Professor of Biology (Chairman of the Group).

This group is composed of the departments of Bacteriology, Botany, and Zoölogy, and has been organized for the purpose of unifying and coördinating the activities in these fields. Although no attempt is made to curtail the free development of each department, the special committee in charge of the Life Sciences Group endeavors to articulate, for their mutual benefit, the courses and research work of the three departments concerned.

The announcements of the departments comprising this group appear in their alphabetical order.

MATHEMATICS

EARLE B. HEDRICK, Ph.D., Sc.D., LL.D., Professor of Mathematics.

GEORGE E. F. SHERWOOD, Ph.D., Professor of Mathematics.

TRACY Y. THOMAS, Ph.D., Professor of Mathematics.

WILLIAM M. WHYBURN, Ph.D., Professor of Mathematics (Chairman of the Department).

CLIFFORD BELL, Ph.D., Associate Professor of Mathematics.

PAUL H. DAUS, Ph.D., Associate Professor of Mathematics.

GLENN JAMES, Ph.D., Associate Professor of Mathematics.

WENDELL E. MASON, M.S.E., M.E., Associate Professor of Applied Mathematics.

MAX ZORN, Ph.D., Associate Professor of Mathematics.

PAUL G. HOEL, Ph.D., Assistant Professor of Mathematics.

GUY H. HUNT, C.E., Assistant Professor of Applied Mathematics.

ANGUS E. TAYLOR, Ph.D., Assistant Professor of Mathematics.

EUPHEMIA R. WORTHINGTON, Ph.D., Assistant Professor of Mathematics.

HARRIET E. GLAZIER, M.A., Assistant Professor of Mathematics, Emeritus.

RALPH E. BYRNE, JR., Ph.D., Instructor in Mathematics.

WILLIAM T. PUCKETT, JR., Ph.D., Instructor in Mathematics.

FREDERICK A. VALENTINE, Ph.D., Instructor in Mathematics.

HARRY M. SHOWMAN, E.M., M.A., Lecturer in Mathematics.

Letters and Science List.—All undergraduate courses in mathematics and statistics are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

Preparation for the Major.—Required: courses C (or the equivalent), 8, 3A, 3B, 4A, with an average grade of C or higher, except that students who have completed two years of high school algebra and also trigonometry may be excused, upon examination, from course 8. Recommended: physics, astronomy, and a reading knowledge of French and German.

The Major.—Courses 109 (or 4B), 111, 112A–112B, and 119, together with fourteen additional upper division units, must be included in every mathematics major. The student must maintain an average grade of at least C in upper division courses in mathematics.

Students who are preparing to teach mathematics in high school are advised to elect courses 101, 102, 370.

Business Administration.—Freshmen in this college are required to take courses 8 and 2, except that students who have completed two years of high school algebra and also trigonometry may be excused, upon examination, from course 8.

Pre-Engineering and Pre-Mining.—The University of California offers at Los Angeles the first two years of the curricula of the Colleges of Engineering and Mining which are in Berkeley. Students intending to pursue their studies in these colleges should consult the departmental pre-engineering adviser before making out their programs.

The minimum requirements for admission to the courses 3A–3B, 4A–4B are

high school algebra, plane geometry, plane trigonometry, and course 8 unless excused as noted above. Prospective engineering students are urged, however, to add, in their high school course, another half-year of algebra and solid geometry to this minimum preparation.

Fees.—Civil Engineering 1FA, 1FB, \$5; Civil Engineering 3, \$25.

LOWER DIVISION COURSES

- C. Trigonometry.** (2) I, II. Mr. Puckett.
Prerequisite: high school geometry and course 8. By permission of the department the prerequisite of course 8 may be varied in special cases.
Not open to students who have had trigonometry in high school.
- F. Spherical Trigonometry.** (1) II. Miss Worthington
Prerequisite: plane trigonometry.
- 2. Mathematics of Finance.** (3) I, II. Mr. Daus
Prerequisite: course 8.
- 3A. Plane Analytic Geometry.** (3) I, II. Mr. Bell, Mr. Byrne
Prerequisite: courses C and 8, or the equivalent.
- 3B. First Course in Calculus.** (3) I, II. Mr. Hunt
Prerequisite: course 3A.
- 3A-3B. Analytic Geometry and First Course in Calculus.** (6) II. Mr. Daus
Prerequisite: courses C and 8, or the equivalent.
- 4A. Second Course in Calculus.** (3) I, II. Mr. Taylor
Prerequisite: course 3B.
- 4B. Third Course in Calculus.** (3) I, II. Mr. James
Prerequisite: course 4A.
Course 4B may be substituted for Mathematics 109 with the approval of the department.
- 4A-4B. Second and Third Courses in Calculus.** (6) I. Mr. Sherwood
Prerequisite: course 3B.
- 7. Mathematics for Social and Life Sciences.** (3) II. Mr. Hoel
Prerequisite: course 8 or the equivalent.
This course gives in brief form an introduction to analytic geometry and the calculus, and other mathematical material particularly designed for students of the social and life sciences.
- 8. College Algebra.** (3) I, II. Mr. Sherwood, Mr. Valentine, and the Staff
Prerequisite: at least one year of high school algebra.
Students who need extra drill in this subject will be required to enroll in sections which meet five days a week.
- 10A. Advanced Engineering Mathematics.** (2) I. Mr. Bell
Prerequisite or concurrent: course 4A.
Vectors and allied topics. Prescribed for pre-engineering students in the mechanical and electrical engineering curricula.
- 10B. Advanced Engineering Mathematics.** (2) II. Mr. Bell
Prerequisite or concurrent: course 4B.
Elementary differential equations and applications. Prescribed for pre-engineering students in the mechanical and electrical engineering curricula.
Not open for full credit to students who have credit for course 119.

- 10A-10B. **Advanced Engineering Mathematics.** (4) II. Mr. Bell
Prerequisite or concurrent: course 4B.
18. **Fundamentals of Arithmetic.** (2) I, II. Mr. Valentine, Mr. Bell
Prerequisite: sophomore standing.

UPPER DIVISION COURSES

Students may not elect upper division courses unless they have taken or are taking Mathematics 3B and 4A or their equivalent.

101. **College Geometry.** (3) I. Mr. Daus
Prerequisite: course 3A.
Selected topics in geometry with particular emphasis on recent developments.
102. **Introduction to Higher Algebra.** (3) II. Miss Worthington
Prerequisite: courses 8, 3B, 4A.
Selected topics in algebra, with particular reference to modern points of view.
106. **Algebraic Geometry.** (2) II. Mr. Sherwood
Prerequisite: course 111.
107. **Introduction to Tensors.** (2) I. Mr. Thomas
109. **Third Course in Calculus.** (3) I, II. Mr. Sherwood
Prerequisite: courses 3B and 4A.
Course 4B may be substituted for Mathematics 109 with the approval of the department.
111. **Theory of Algebraic Equations.** (3) I, II. Mr. James, Mr. Zorn
Prerequisite: courses 8, 3B, and 4A.
- 112A-112B. **Introduction to Higher Geometry.** (2-2) Yr. Mr. Daus, Mr. Sherwood
Prerequisite: courses 6, 3B, and 4A.
113. **Synthetic Projective Geometry.** (3) II. Mr. Daus
Prerequisite: course 112A-112B, or consent of the instructor.
- *115. **Theory of Numbers.** (3) II. Mr. Daus
- *116. **Differential Geometry.** (3) II. Mr. Thomas
Prerequisite: course 107.
119. **Differential Equations.** (3) I, II. Mr. Bell
Prerequisite: course 109 or its equivalent.
Not open for full credit to students who have had course 10B.
- 122A-122B. **Advanced Calculus.** (3-3) Yr. Mr. Whyburn, Mr. Taylor
Prerequisite: course 109.
125. **Analytic Mechanics.** (3) II. Mr. Byrne
Prerequisite: course 109 or its equivalent, and Physics 105.
126. **Potential Theory.** (3) I. Mr. Whyburn, Mr. Taylor
Prerequisite: course 109 and one year of college physics.
199. **Special Problems in Mathematics.** (3) I, II. Mr. Whyburn and the Staff
Prerequisite: The consent of the department.

* Not to be given, 1941-42.

GRADUATE COURSES

208. Foundations of Geometry. (3) I. Mr. Daus
- *211. Higher Plane Curves. (3) I. Mr. Daus
- *215. Non-Euclidean Geometry. (3) I. Mr. Daus
- 216A. Foundations of Differential Geometry. (3) I. Mr. Thomas
A discussion of geometry and group theory, allowable coördinates and tangent spaces. Axioms for differential geometry. Existence theorems.
- 216B. Differential Invariants. (3) II. Mr. Thomas
A study of the foundations of invariant theories of generalized spaces. Among the topics treated are normal coördinates, the general theory of extension, spatial identities, differential invariants and parameters, the equivalence problem, and reducibility of spaces.
- 221A-221B. Higher Algebra. (3-3) Yr. Mr. Sherwood, Mr. Zorn
- 224A-224B. Functions of a Complex Variable. (3-3) Yr. Mr. Whyburn
227. The Theory of Summability. (3) II. Mr. James
A study of convergent, nonconvergent, and asymptotic series, with applications to infinite integrals and Fourier series.
- *243. Real Variables—Differential Equations. (3) I. Mr. Whyburn
- *244. Real Variables—Integration. (3) II. Mr. Whyburn
245. Integral Equations. (3) I. Mr. Taylor
Prerequisite: course 243.
246. Partial Differential Equations. (3) II. Mr. Taylor
Prerequisite: course 243.
- *247A. Selected Topics in Absolute Differential Calculus. (3) I. Mr. Thomas
Prerequisite: course 216B or the consent of the instructor.
A course of lectures on pure and applied mathematics based on the absolute differential calculus, with special attention to recent developments.
- *247B. Selected Topics in Absolute Differential Calculus. (3) II. Mr. Thomas
Prerequisite: course 216B or 247A.
A continuation of course 247A, but an attempt will be made to arrange the subject matter so that the course can be taken by those who have not had course 247A.
260. Seminar in Mathematics. (3) I, II.
Topics in analysis, geometry, and algebra, and in their applications, by means of lectures and informal conferences with members of the staff.
290. Research in Mathematics. (1 to 6) I, II. The Staff

PROFESSIONAL COURSE IN METHOD

370. The Teaching of Mathematics. (3) II. Mr. Valentine
Prerequisite: courses 3B and 4A.
A critical inquiry into present-day tendencies in the teaching of mathematics.

* Not to be given, 1941-42.

STATISTICS**LOWER DIVISION COURSE****1. Elementary Statistics. (2) I.****Mr. Hoel**

Emphasis is placed on the understanding of statistical methods. Topics covered are frequency distributions, measures of central tendency, measures of variation, moments, theoretical frequency distributions, sampling, standard errors, linear regression, and linear correlation.

UPPER DIVISION COURSE**131A-131B. Statistics. (3-3) Yr.****Mr. Hoel**

Not open for credit to students who have taken course 1.

CIVIL ENGINEERING†**1LA-1LB. Plane Surveying Lectures. (2-2) 1LA, I, II; 1LB, II only.****Mr. Hunt, Mr. Mason, Mr. Byrne**

Prerequisite: trigonometry and geometric drawing.

1FA-1FB. Plane Surveying Field Practice. (1-1) 1FA, I, II; 1FB, II only.**Mr. Hunt, Mr. Mason, Mr. Byrne**

Prerequisite or concurrent: course 1LA-1LB. Fee, \$5 a semester.

3. Summer Class in Plane Surveying. (3)**Mr. Mason**

Prerequisite: course 1FA-1FB. Fee, \$25.

Four weeks of field work after the close of the college year.

8. Materials of Engineering Construction. (2) I, II. Mr. Mason, Mr. Byrne

Prerequisite: sophomore standing.

† First two years only.

MECHANIC ARTS

HAROLD W. MANSFIELD, Assistant Professor of Mechanic Arts and Director of Shops (Chairman of the Department).

WILLIS H. BLISS, B.E., Associate in Mechanic Arts.

FOSS R. BROCKWAY, Ed.B., Associate in Mechanic Arts.

ADRIAN D. KELLER, M.A., Associate in Mechanic Arts.

ADIN E. MATTHEWS, M.S., Associate in Mechanic Arts.

CHARLES H. PAXTON, A.B., Associate in Mechanic Arts.

THOMAS A. WATSON, Associate in Mechanic Arts.

WENDELL E. MASON, M.S.E., M.E., Associate Professor of Applied Mathematics.

The College of Applied Arts

Preparation for the Major.—Mechanical Engineering D; Mechanic Arts 11, 12, 14, 15, 16, 17.

The Major.—Thirty-six units of coördinated upper division courses approved by the department.

The Minor.—Twenty units of coördinated courses, not less than six of which shall be in the upper division.

Special Secondary Teaching Credential in Industrial Arts Education.—For the requirements see the ANNOUNCEMENT OF THE SCHOOL OF EDUCATION, LOS ANGELES.

Laboratory Fees.—Mechanic Arts 11, 12, 14, 17, 21, 24, 29, 101, 102, 104, 107A, 107B, 111, 112, 114, 121, 135, 145, 155, \$3; Mechanical Engineering 10B, \$5.

MECHANICAL ENGINEERING†

D. Engineering Drawing. (2) I, II.

Mr. Mansfield

Lettering, orthographic projection, pictorial representation, developed surfaces and intersections, dimensioning, fastenings for machinery, working drawings, topographical drawing.

1. Elements of Heat Power Engineering. (3) I, II.

Mr. Paxton

Heat engines, steam power plants, boiler room equipment, steam engines, turbines; Diesel and other internal combustion engines; fuels.

2. Descriptive Geometry. (3) I, II.

Mr. Paxton

Lecture, one hour; laboratory, six hours.

6. Machine Drawing. (3) I, II.

Mr. Paxton

Lecture, one hour; laboratory, six hours.

Design and delineation of simple machine parts in the drafting room, with special emphasis upon the production of drawings which conform to standard practice.

† The University of California offers at Los Angeles the first two years in preparation for admission to the junior year of the College of Engineering at Berkeley. Students intending to pursue their studies in this college should present their programs for approval to the pre-engineering adviser.

10B. Treatment of Engineering Materials. (2) I, II.

Mr. Mason, Mr. Watson, Mr. Keller, Mr. Mathews, Mr. Bliss

Prerequisite: Civil Engineering 8. Fee, \$5.

MECHANIC ARTS**LOWER DIVISION COURSES****11. Bench and Machine Work in Wood. (3) I.**

Mr. Keller

Fee, \$3.

Fundamental hand tool and joinery operations; the layout and development of joints essential in wood construction. Maintenance and operation of stationary and portable woodworking machinery.

12. General Metal Work. (3) I, II.

Mr. Brockway

Fee, \$3.

A survey of the fundamental elements of metal work; metals and metal working processes; construction of articles with applications involving industrial design; metalcraft, gem cutting and jewelry making.

14. Elements of Practical Electricity. (3) I.

Mr. Mathews

Fee, \$3.

A general course in electricity dealing with the theory of direct current and magnetic circuits, stressing the practical application and operation of D. C. circuits, electrical measuring instruments and equipment.

15. Automobile Problems for the Purchaser and User. (3) I, II.

Lectures and demonstrations.

Mr. Watson

The operation of the modern automobile; unit study. Fuel; lubrication; tires, accessories, and supplies. Analysis of repairs; operation for safety and economy. Financing; insurance; depreciation. Future developments in motor cars.

16. Architectural Drawing. (2) I.

Mr. Mansfield

An introduction to architectural drawing; the house, plans, elevations, sections, working drawings; architectural symbols and details; perspective drawing; lettering; reproduction by the blue print and other printing processes.

17. Machine Shop. (3) I, II.

Mr. Bliss, Mr. Watson

Fee, \$3 a semester.

Elementary machine shop practice; fundamental operations and tool processes; operations of standard power tools. Layout and bench work. Distinguishing various metals; working from blue prints and sketches; tool sharpening.

21. General Woodwork. (2) I.

Mr. Keller

Fee, \$3.

Fundamentals of construction as applied to recreational activities; skis, paddle boards and small boats.

24. Elementary Electronics and Radio Circuits. (3) I, II.

Mr. Mathews

Fee, \$3.

A course for the beginner in radio, covering high frequency circuits and the use of thermionic vacuum tubes. Laboratory work in set construction and repair, and in the use of testing equipment.

29. Applied Photography. (2) I, II.

Mr. Keller

Fee, \$3.

Fundamentals of photography; exposure, developers and their characteristics, films, filters, and development of negatives and prints.

UPPER DIVISION COURSES**101. Cabinet Making. (3) I.**

Mr. Keller

Fee, \$3.

Case and furniture making with emphasis on variety of typical elements. Preparation and application of paints, stains, varnishes and lacquers.

102. General Shop. (3) I.

Mr. Brockway

Fee, \$3.

Analysis and construction of projects involving combined use of various tools, materials, and processes.

104. Alternating Currents. (3) II.

Mr. Mathews

Prerequisite: course 14, Physics 1C, or Physics 2B. Fee, \$3.

A general course in electricity dealing with the theory and practice of alternating current circuits and equipment, principles and use of electrical measuring instruments, switchboard work, circuit testing, and commercial distribution.

106A-106B. Industrial Drawing. (2-2) Yr.

Mr. Mansfield, Mr. Paxton

Technical sketching, lettering, assembly and detail drawings, design, tracing and reproduction.

107A-107B. Machine Shop. (3-3) Yr.

Mr. Bliss, Mr. Watson

Prerequisite: course 17A-17B. No prerequisite for graduate students on consent of instructor. Fee, \$3 a semester.

Advanced machine shop practice; machine construction and repair; tool-making; use of precision instruments; development work on research apparatus; model making and how to apply and prepare for patents.

111. Wood Pattern Making. (3) II.

Mr. Keller

Fee, \$3.

Pattern making and foundry practice.

112. General Metal Work. (3) II.

Mr. Brockway

Fee, \$3.

A study of metals and metal fabrication with applications as found in industry. Ferrous and nonferrous metals and some of their alloys. Heat treatments; oxy-acetylene welding; electric arc welding; forging and ornamental iron work.

114. Industrial Arts Electricity. (3) I.

Mr. Mathews

Fee, \$3.

Elementary electrical theory, with laboratory work in design, drawing, and construction of electrical and radio projects, particularly those suitable for teaching purposes in secondary schools.

121. Industrial Arts Woodwork. (2) II.

Mr. Keller

Fee, \$3.

Design and development of projects in wood suitable for classes in secondary schools.

135. Automotive Power Plants. (3) I.**Mr. Brockway**

Fee, \$3.

Diesel and gasoline engines; principles of operation in laboratory and field; fuels and lubricants; drives and controls. Practice in taking down, assembling and adjusting. Survey of Diesel fuel systems and their operation. Approved methods of maintenance. Field trips to industrial plants.

145. Automotive Laboratory. (3) II.**Mr. Brockway**

Fee, \$3.

Principles of the automobile and its adjustment. The taking down, assembly, and operation of automotive units. Diagnostic tests and measurements for mechanical condition. Study of tolerances and clearances of the various parts. Survey of fuels, lubricants and problems of automotive lubrication.

155. Automotive Service. (3) II.**Mr. Brockway**

Fee, \$3.

Principles of automobile service; engines and engine reconstruction; trouble location, "tune up" methods. Automotive electrics, storage batteries and circuits. Body and fender maintenance methods.

199A-199B. Special Problems in Technical Related Subjects. (2-2) Yr.

Prerequisite: junior standing.

Mr. Mansfield and the Staff

Tools, materials, processes of industry, and special studies in the field of mechanic arts.

PROFESSIONAL COURSE IN METHOD**370. Industrial Arts Education. (2) II.****Mr. Mansfield**

A study of the objectives, content, organization, methods, and techniques of teaching the industrial arts in the secondary schools.

MILITARY SCIENCE AND TACTICS

CHARLES E. SEVERSON, Colonel, U. S. Army, Professor of Military Science and Tactics (Chairman of the Department).

JOHN A. ANDREWS, Lieutenant Colonel, U. S. Army, Associate Professor of Military Science and Tactics.

FREDERICK A. BARKER, Lieutenant Colonel, U. S. Army, Associate Professor of Military Science and Tactics.

RALPH E. POWELL, Major, U. S. Army, Associate Professor of Military Science and Tactics.

JAMES H. SMITH, Major, U. S. Army, Associate Professor of Military Science and Tactics.

WILLIAM W. BARNES, A.B., First Lieutenant, U. S. Army, Instructor in Military Science and Tactics.

THOMAS J. CUNNINGHAM, A.B., Captain, U. S. Army, Instructor in Military Science and Tactics.

ROBERT W. FROBACH, A.B., First Lieutenant, U. S. Army, Instructor in Military Science and Tactics.

CLYDE L. HEDRICK, A.B., First Lieutenant, U. S. Army, Instructor in Military Science and Tactics.

FRANK B. HERALD, A.B., First Lieutenant, U. S. Army, Instructor in Military Science and Tactics.

RICHARD G. VALENTINE, Ed.B., First Lieutenant U. S. Army, Instructor in Military Science and Tactics.

JAMES F. YOUNG, Ed.B., First Lieutenant, U. S. Army, Instructor in Military Science and Tactics.

———, Instructor in Military Science and Tactics.

HORACE G. FERRIS, Band Leader.

Letters and Science List.—All undergraduate courses in this department are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

The University of California at Los Angeles does not offer a major in military science and tactics in the College of Letters and Science. At Berkeley, a combination major of military science and either (a) history and political science or (b) jurisprudence may be taken. Students wishing to satisfy the requirements for such a combination major are referred to the GENERAL CATALOGUE, Departments at Berkeley.

The courses in military training are those prescribed by the War Department for infantry and coast artillery units of the senior division of the Reserve Officers' Training Corps. The United States furnishes arms, equipment, uniforms, and some textbooks for the use of the students belonging to such units. An amount necessary to replace articles not returned by the students will be collected by the Cashier.

The student who is found by the Medical Examiner to be ineligible for en-

rollment in military science and tactics may be assigned by the Examiner to the individual gymnastics section of Physical Education 3.

The primary object of establishing units of the Reserve Officers' Training Corps is to qualify students for appointment in the Officers' Reserve Corps of the United States Army. Students who complete the advanced course and who participate in such summer camps as the Secretary of War may prescribe are eligible upon graduation for appointment and commission by the President of the United States in the Officers' Reserve Corps, which is intended to furnish a great part of the commissioned personnel for the temporary forces which this nation will require in time of emergency.

The courses are divided into two groups, namely, the basic course and the advanced course, with distinctive missions as indicated below.

BASIC COURSE

The purpose of this course is to produce better citizenship through sound character development, under the guidance of the Constitution of the United States.

The basic course is prescribed for all first-year and second-year undergraduate male students who are citizens of the United States, able-bodied and under twenty-four years of age at the time of admission to the University. A first-year or second-year student claiming exemption because of non-citizenship, physical disability, or age will present a petition on the prescribed form for such exemption. Pending action on his petition the student will enroll in and enter the course prescribed for his year.

Students who have received training in a junior R. O. T. C. unit may be given advanced standing on the basis of two years junior R. O. T. C. for one year senior R. O. T. C. However, advanced standing will not excuse a student from the two years basic training required by the University unless he elects to take the advanced course, in which event junior R. O. T. C. credit to the extent of 1½ years senior R. O. T. C. credit may be given. Application for advanced standing must be made when registering and must be accompanied by a recommendation from the professor of military science and tactics at the school which the student attended.

1A-1B. Basic Military Training. (1½-1½) Yr.

Mr. Herald

Two hours of field instruction and one hour of class instruction each week.

Instruction in National Defense Act. Obligations of citizenship, military history and policy, current international situation, military courtesy, military hygiene and first aid, map reading, military organization, rifle marksmanship, primary instruction in Coast Artillery ammunition, weapons and material, and leadership to include the duties of a private.

2A-2B. Basic Military Training. (1½-1½) Yr.

Mr. Barnes, Mr. Hedrick, Mr. Smith, Mr. Frobach

Two hours of field instruction and one hour of class instruction each week.

Instruction in characteristics of infantry weapons, automatic rifle, musketry, scouting and patrolling, combat principles of the squad; primary Coast Artillery instruction in position finding for sea coast and antiaircraft artillery; leadership to include the duties of a corporal.

MILITARY BAND AND DRUM AND BUGLE CORPS

Students who play musical instruments suitable for use in the Military Band or in the Drum and Bugle Corps may take such work under the appropriate sections of courses 1A-1B, 2A-2B.

ADVANCED COURSE

The purpose of this course is to select and appoint qualified graduates in the Officers' Reserve Corps of the United States Army.

The advanced course is prescribed for such third-year and fourth-year students as have completed the basic course and elect to continue their military training.

Any member of the senior division of the Reserve Officers' Training Corps who has completed two academic years of service in that division, who has been selected for further military training by the Vice-President and Provost of the University and the professor of military science and tactics, and who executes the following written agreement, will be entitled, while not subsisted in kind, to a commutation of subsistence fixed by the Secretary of War in accordance with law (about \$72 a year) :

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In consideration of commutation of subsistence to be furnished in accordance with law, I hereby agree to complete the advanced course Infantry (Coast Artillery) R. O. T. O. in this or any other institution where such course is given, to devote five hours per week during such period to military training prescribed and to pursue the courses of camp training during such period as prescribed by the Secretary of War.

.....
(Signature)

The course of camp training is for six weeks during the summer vacation normally following the student's completion of the first year of the advanced course. The United States furnishes uniform, transportation and subsistence and pays students at the rate of \$1.00 per day. Students who attend receive one-half unit of credit for each week of the duration of the camp.

Cadet officers and, so far as practicable, sergeants of the unit, will be appointed from members of the senior and junior classes, respectively.

103A. Advanced Infantry Training. (3) I, II. Mr. Powell, Mr. Young

†Instruction and practice in the duties of officers in connection with the basic course; instruction in pistol and rifle marksmanship, machine gun and howitzer company weapons, aerial photographs, map reading, motors, company administration, and leadership to include duties of the platoon sergeant.

103B. Advanced Infantry Training. (3) I, II. Mr. Andrews, Mr. Valentine

†Instruction and practice in the duties of officers in connection with the basic course; combat principles of howitzer company squads, combat principles of machine gun and rifle platoon; field fortification, defense against chemical warfare, and leadership to include duties of the company officer.

104A. Advanced Infantry Training. (3) I, II. Mr. Cunningham

†Instruction and practice in the duties of officers in connection with the basic course; instruction in military history and military law, tanks, mechanization, anti-tank weapons, property procurement, and combat leadership to include duties of company officers and battalion staff.

104B. Advanced Infantry Training. (3) I, II. Mr. Barker

†Instruction and practice in the duties of officers in connection with the basic course, instruction in combat principles to include rifle and machine gun company and howitzer platoon, tanks and mechanization, infantry field signal communications, infantry antiaircraft tactics, and leadership to include duties of company officers and battalion staff.

† Each student must enroll for two hours of field instruction and three hours of class instruction each week.

143A. Advanced Coast Artillery Training. (3) I.**Mr. Frobach**

†Instruction and practice in the duties of an officer in connection with the basic course; instruction in basic gunnery and position finding for sea coast artillery, map reading, aerial photographs, and leadership to include duties of platoon sergeant.

143B. Advanced Coast Artillery Training. (3) II.**Mr. Frobach**

†Instruction and practice in the duties of an officer in connection with the basic course; instruction in basic gunnery and position finding for anti-aircraft artillery, orientation, signal communication, Coast Artillery, and leadership to include duties of the battery officer.

144A. Advanced Coast Artillery Training. (3) I.**Mr. Smith**

†Instruction and practice in the duties of an officer in connection with the basic course; instruction in military history, military law, battery administration and supply, artillery material, and leadership to include duties of battery officers and battalion staff.

144B. Advanced Coast Artillery Training. (3) II.**Mr. Smith**

†Instruction and practice in the duties of an officer in connection with the basic course; instruction in motor transportation, Coast Artillery tactics and combat orders; field engineering, defense against chemical warfare, and leadership to include duties of battery officers and battalion staff.

SUMMER CAMPS

Students who satisfactorily complete a course in a Reserve Officers' Training Corps or a military training summer camp conducted by the United States Government may receive credit toward graduation at the rate of one-half unit a week for each course completed. But it is provided (a) that no credit thus earned in or after 1925 shall excuse a student from the courses in military science and tactics required of all male undergraduates during their freshman and sophomore years, and (b) that the total credit thus earned by any student shall not exceed six units.

† Each student must enroll for two hours of field instruction and three hours of class instruction each week.

MUSIC

GEORGE STEWART McMANUS, Mus.Doc., Professor of Music and University Organist.

ARNOLD SCHOENBERG, Professor of Music.

LEROY W. ALLEN, M.A., Associate Professor of Music (Chairman of the Department).

FRANCES WRIGHT, Associate Professor of Music.

ROBERT U. NELSON, M.A., Assistant Professor of Music.

WALTER H. RUBSAMEN, Ph.D., Instructor in Music.

SQUIRE COOP, Lecturer in Music.

RAYMOND MOREMEN, M.S.M., Lecturer in Music.

HELEN CHUTE DILL, M.A., Supervisor of Training, Music.

LAVERNA L. LOSSING, M.A., Supervisor of Training, Music.

The student may select a major in music in either the College of Letters and Science or in the College of Applied Arts; these majors lead to the degree of Bachelor of Arts in both instances. For information concerning teaching credentials consult the ANNOUNCEMENT OF THE SCHOOL OF EDUCATION, LOS ANGELES.

The College of Letters and Science

Letters and Science List.—All undergraduate courses except 7A-7B, 46A-46B-46C-46D, 108A-108B, and 115A-115B are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

Preparation for the Major.—Courses 1A-1B, 2A-2B, 14A-14B, 35A-35B. Recommended: a reading knowledge of French, German, or Italian, Physics 4A-4B, and some ability in piano playing.

The Major.—Twenty-four units of upper division courses, including (a) course 104A-104B; (b) six units chosen from courses 111A-111B, 124, 125, 126, 127, 128, 129, 130, 131, 142, 199, sec. 2; and (c) fourteen units chosen from courses 105A-105B, 106A-106B, 109A-109B, 114A-114B, 122A-122B, 199, sec. 1, and courses under (b) not duplicated.

The College of Applied Arts

Two curricula are available:

A. For the bachelor's degree alone.

Preparation for the Major.—Courses 1A-1B, 2A-2B, 14A-14B, 35A-35B. Recommended: a reading knowledge of French, German, or Italian, Physics 4A-4B, and some ability in piano playing.

The Major.—Thirty-six units of upper division courses, including (a) course 104A-104B; (b) six units chosen from courses 111A-111B, 124, 125, 126, 127, 128, 129, 130, 131, 142, 199, sec. 2; and (c) twenty-six units chosen from upper division courses in music, with the exception of courses 108A-108B and 115A-115B. Six or eight units of upper division courses in related fields will be accepted upon departmental approval.

B. For the bachelor's degree leading to the special secondary teaching credential. This curriculum meets the departmental requirements for admission to the graduate courses leading to the general secondary credential.

Preparation for the Major.—Courses 1A-1B, 2A-2B, 7A-7B, 14A-14B, 35A-35B. Recommended: a reading knowledge of French, German, or Italian, Physics 4A-4B, and some ability in piano playing.

The Major.—Courses 104A-104B, 105A-105B, 108A-108B, 109A-109B, 115A-115B; six units chosen from courses 111A-111B, 124, 125, 126, 127, 128, 129, 130, 131, 142, 199, sec. 2; together with twelve additional units in upper division courses in music. Six or eight units in related fields will be accepted upon departmental approval.

The Minor in Music.—Twenty units of coördinated courses, six of which must be in the upper division.

The Graduate Division

A. *Requirements for the General Secondary Credential.*—Consult the ANNOUNCEMENT OF THE SCHOOL OF EDUCATION, LOS ANGELES.

B. *Requirements for Admission to Graduate Courses.*—

1. *As a candidate for the general secondary credential:* Ordinarily the undergraduate major in music, or its equivalent, including courses 104A-104B, 105A-105B, 108A-108B, 109A-109B, 115A-115B, and six upper division units chosen from courses 111A-111B, 124, 125, 126, 127, 128, 129, 130, 131, 142, 199, sec. 2. It is recommended that course 370B be taken in the senior year, as it is prerequisite to Education G377.

2. *As a candidate for the Master's degree:* Ordinarily the undergraduate major of twenty-four upper division units of music, with the exception of courses 108A-108B and 115A-115B.

C. *Requirements for the Master's degree.*—For the general requirements, see page 107. The Department of Music favors the Thesis Plan.

LOWER DIVISION COURSES

1A-1B. *Solfeggio.* (3-3) Yr.

Miss Wright
Elementary theory, dictation, and music reading. Basic course for the major in music.

2A-2B. *The History and Appreciation of Music.* (2-2) Yr. Mr. McManus

The consideration of music from formal, aesthetic, and historical standpoints.

7A-7B. *Elementary Voice.* (2-2) Yr.

Mr. Moremen
Restricted to music majors working toward the special secondary and the general secondary teaching credentials.

9A-B-C-D. *Chorus and Glee Club.* (1 unit each semester.) Mr. Moremen

10A-B-C-D. *University Symphony Orchestra.* (2 units each semester.)

Prerequisite: the consent of the instructor. Mr. Allen
The study and performance of standard symphonic literature.

- 11A-B-C-D. A Cappella Choir.** (2 units each semester.) Mr. Moremen
Prerequisite: the consent of the instructor.
The study and performance of standard choral works for unaccompanied voices.
- 14A-14B. Counterpoint.** (2-2) Yr. Mr. Schoenberg, Mr. Nelson
Prerequisite: course 35A-35B.
- *15A-15B. Strings, Elementary.** (2-2) Yr. Mr. Allen
- *16A-16B. Brass, Elementary.** (2-2) Yr. Mr. Allen
- *17A-17B. Woodwind, Elementary.** (2-2) Yr. Mr. Allen
- 35A-35B. Harmony.** (3-3) Yr. Mr. Nelson, Mr. Rubsamen
Prerequisite: course 1A-1B or its equivalent; may be taken concurrently with 1A-1B with the consent of the instructors.
- 37A-37B. Piano, Intermediate.** (2-2) Yr. Mr. Coop
- 46A-B-C-D. University Band.** (1 unit each semester.) Mr. Allen
Prerequisite: the consent of the instructor.

UPPER DIVISION COURSES

The piano requirement for music majors, prerequisite to junior standing, is the ability to play such music as the accompaniments in the Teacher's Manuals of the Music Hour Series and the Progressive Series, four-part hymns and folk songs, and contrapuntal compositions equivalent to First Lessons in Bach, edited by Walter Carroll. In special cases this requirement may be reduced for students with corresponding proficiency on other approved instruments.

- 104A-104B. Form and Analysis.** (2-2) Yr. Mr. Schoenberg, Mr. Nelson
Prerequisite: course 35A-35B.
Analysis of homophonic and contrapuntal music.
- 105A-105B. Composition.** (2-2) Yr. Mr. Schoenberg, Mr. Nelson
Prerequisite: courses 14A-14B, 35A-35B, 104A-104B, and the consent of the instructor; 104A-104B may be taken concurrently. Recommended: course 106A-106B.
Vocal and instrumental compositions in the smaller forms.
- 106A-106B. Structural Functions of Harmony.** (2-2) Yr. Mr. Schoenberg
Prerequisite: courses 35A-35B, 104A-104B (may be taken concurrently).
The application of harmonic progressions to form and composition.
- 108A-108B. Advanced Voice.** (2-2) Yr. Mr. Moremen
Prerequisite: course 7A-7B.
Restricted to music majors working toward the special secondary and the general secondary credentials.
- 109A-109B. Conducting.** (1-1) Yr. Mr. Allen
Prerequisite: courses 1A-1B, 35A-35B.
The theory and practice of conducting choral and instrumental organizations.

* Not to be given, 1941-42.

- 110A-†110B. Chamber Music Ensemble.** (2-2) Yr. Mr. McManus
 Prerequisite: the consent of the instructor.
 The study and interpretation of chamber music literature.
- 111A-111B. History of Music in Western Civilization.** (3-3) Yr. Mr. Rubsamen
 Prerequisite: courses 2A-2B, 35A-35B, or their equivalent, and junior standing.
 The stylistic development of music with a background of its relationship to other arts and to culture in general.
- 114A-114B. Instrumentation.** (2-2) Yr. Mr. Allen
 Prerequisite: course 35A-35B, and junior standing.
 The theory and practice of writing for instrumental ensembles. The study of orchestral scores and an introduction to symphonic orchestration.
- 115A-115B. Instrumental Technique and Repertoire.** (2-2) Yr.
 Prerequisite: course 35A-35B, and junior standing. Mr. Allen
 Restricted to music majors working toward the special secondary and the general secondary credentials.
 A theoretical and practical study of the instruments of the orchestra and band, including the principles of arranging music for representative combinations. Appropriate literature for instrumental ensembles.
- ‡116A-116B. Piano, Advanced.** (2-2) Yr. Mr. McManus
 Prerequisite: the consent of the instructor.
- *119A-119B. Wind Instrument Ensemble.** (2-2) Yr.
 Prerequisite: the consent of the instructor. Mr. Allen, Mr. Rubsamen
- *122A-122B. Double Counterpoint, Canon, and Fugue.** (2-2) Yr. Mr. Schoenberg
 Prerequisite: course 14A-14B, and the consent of the instructor.
- *124. Bach.** (2) I. Mr. Rubsamen
 Prerequisite: courses 2A-2B, 35A-35B.
- 125. Beethoven.** (2) I. Mr. Rubsamen
 Prerequisite: courses 2A-2B, 35A-35B.
- 126. The History of the Sonata.** (2) I. Mr. Nelson
 Prerequisite: courses 2A-2B, 35A-35B.
 The development of the sonata from its beginnings to the close of the romantic period.
- 127. The History of the Opera.** (2) II. Mr. Rubsamen
 Prerequisite: courses 2A-2B, 35A-35B.
 A survey of operatic music from its inception to the present day.
- 128. Modern Tendencies in Music.** (2) II. Mr. Nelson
 Prerequisite: courses 14A-14B, 35A-35B.
 A study of form, style, and idiom in contemporary music.
- 129. The Romantic Symphony.** (2) II. Mr. Rubsamen
 Prerequisite: courses 2A-2B, 35A-35B.
 A study of symphonic works of the romantic period.

* Not to be given, 1941-42.

† Not to be given second semester, 1941-42.

‡ Not to be given first semester, 1941-42.

- 130. History and Literature of Church Music.** (2) II. Mr. Moremen
Prerequisite: courses 2A-2B, 35A-35B.
A study of the history and development of church music, including worship forms and liturgies.
- 131. Oratorio Literature.** (2) I. Mr. Coop
Prerequisite: courses 2A-2B, 35A-35B.
A survey of oratorio music from its inception until the present day.
- 142. History of Music in America.** (2) I. Mr. McManus
Prerequisite: course 2A-2B or its equivalent.
A survey of music in the United States from the colonial period to the present day.
- 199. Special Studies in Music.** (2) I, II. Mr. Schoenberg, Mr. Rubsamen
Prerequisite: the consent of the instructor.

GRADUATE COURSES

- 201A-201B. Advanced Composition.** (3-3) Yr. Mr. Schoenberg
- 205. History of Pianoforte Style.** (2) II. Mr. McManus
- 207. The Variation Forms.** (2) I. Mr. Nelson
Prerequisite: courses 105A-105B and 111A-111B or their equivalents.
- 253A-253B. Seminar in Musicology.** (3-3) Yr. Mr. Rubsamen
Prerequisite: course 111A-111B or the equivalent.
- 261. Special Studies for Composers. Seminar.** (2) II. Mr. Schoenberg

PROFESSIONAL COURSES IN METHOD

- 330. Elementary Music Education.** (3) I, II. Mrs. Dill, Miss Lossing
Prerequisite: sophomore standing and course 1A or its equivalent.
A course in music education for the general elementary teacher. A professionalized subject-matter course to equip the student to teach in the modern school. Required of candidates for the general elementary credential.
- 370A-370B. Music Education.** (3-3) Yr. Miss Wright
Prerequisite: junior standing.
Organization and administration of music in secondary schools.
Course 370B is required of candidates for the general secondary credential with music as a major.

NAVAL SCIENCE AND TACTICS

WILLIAM C. BARKER, Captain, U. S. Navy; Graduate U. S. Naval Academy; Graduate U. S. Naval War College; Graduate U. S. Naval Academy Postgraduate Course; Professor of Naval Science and Tactics (Chairman of the Department).

JOSEPH H. CHADWICK, Lieutenant Commander, U. S. Navy; Graduate U. S. Naval Academy; Associate Professor of Naval Science and Tactics.

RICHARD B. LEVIN, Lieutenant Commander, U. S. Navy; Graduate U. S. Naval Academy; Graduate U. S. Naval Academy Postgraduate Course; Associate Professor of Naval Science and Tactics.

PHILIP W. WARREN, Lieutenant Commander, U. S. Navy; Graduate U. S. Naval Academy; Associate Professor of Naval Science and Tactics.

ROBERTSON J. WEEKS, Lieutenant Commander, U. S. Navy; Graduate U. S. Naval Academy; Associate Professor of Naval Science and Tactics.

BOSCOE I. ANDERSON, Assistant in Naval Science and Tactics.

PETER W. MATTHEWS, Assistant in Naval Science and Tactics.

GLENN E. PRALL, Assistant in Naval Science and Tactics.

WINFIELD S. WARTENBERG, Assistant in Naval Science and Tactics.

Letters and Science List.—All undergraduate courses in this department are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

NAVAL RESERVE OFFICERS' TRAINING CORPS

By action of the Secretary of the Navy and of the Regents of the University in June, 1938, provision was made for the establishment of a unit of the Naval Reserve Officers' Training Corps on the Los Angeles campus of the University.

The primary object of the Naval Reserve Officers' Training Corps is to provide systematic instruction and training at civil institutions which will qualify selected students of such institutions for appointment as officers in the Naval Reserve. The Naval Reserve Officers' Training Corps is expected to train Junior Officers for the Naval Reserve and thus assist in meeting a demand for increased commissioned personnel in time of war or national emergency.

Courses in naval science are given for those who intend to complete the four years of training for a commission in the Naval Reserve. While only students signifying such a purpose will be admitted, students who for sufficient reasons are forced to discontinue their training before their commission is granted, will be permitted, at the end of two years, to count such training in lieu of the military training prescribed by the University. All courses in naval science described hereinafter include infantry drill for one hour weekly for all Naval R. O. T. C. students.

Enrollment is restricted to able-bodied male students who are citizens of the United States and are between the ages of fourteen and twenty-four years. Students must pass the same physical examination as is required of all candidates for admission to the Naval Academy.

The courses in navigation, seamanship, communications, naval history, ordnance and gunnery, naval aviation, military law, naval administration, and mechanical and electrical engineering are those prescribed by the Navy

Department for the Naval Reserve Officers' Training Corps. The United States furnishes arms, equipment, uniforms, and textbooks for the use of these students. At the end of each academic year the Department of Naval Science and Tactics will set a date for the return of equipment. The names of students who fail to return equipment issued to them will be reported to the Business Manager in order that appropriate action may be taken by the University authorities. Upon satisfactory completion of the course the uniform becomes the property of the student.

The basic course (lower division) consists of the first two years in the Department of Naval Science and Tactics and is open only to freshmen and sophomores of the University.

The advanced course (upper division) consists of the final two years in Naval Science and Tactics or of such shorter periods of time as may, in exceptional cases, outlined in the regulations, be prescribed by the Secretary of the Navy. The advanced course is open only to students who have successfully completed the basic course, and who have been selected by the Professor of Naval Science and Tactics for upper division work.

A member of the Naval Reserve Officers' Training Corps who is enrolled in the advanced course is entitled to commutation of subsistence from the first day during an academic term that the student starts the advanced course in training until he completes the course at the institution or his connection with the Naval Reserve Officers' Training Corps is severed in accordance with the regulations prescribed, except that subsistence in kind will be furnished in lieu of commutation of subsistence for any periods devoted to cruises. The amount allowed for subsistence, which will be fixed from time to time by the Secretary of the Navy, will not exceed the value prescribed by law for a commuted ration in the Navy.

Naval Reserve Officers' Training Corps practice cruises will be held annually as prescribed by the Navy Department. Attendance at one advanced course cruise is required by all students enrolled in the advanced course. Advanced course students receive the pay of enlisted men of the seventh pay grade of the Navy during their attendance on cruises.

Basic course students may be authorized to attend cruises but while so doing will not receive pay. All Naval Reserve students attending cruises are furnished transportation and subsistence by the United States.

Credit may be allowed for courses completed in summer practice cruises at the rate of one-half unit per week for each course so completed; the maximum credit obtainable is six units.

LOWER DIVISION COURSES

1A-1B. Naval Science (first year). (2½-2½) Yr. Mr. Barker and the Staff

Three hours of classroom instruction and one hour of drill or practical exercise per week.

During the first semester one hour of instruction will be given in naval history and customs, one hour in ordnance, and one hour in seamanship. During the second semester similar instruction will be given in seamanship, ordnance, and communications. The instruction in ordnance covers practical and theoretical use of arms, construction of guns, ammunition, powder, gun sights, depth charges, mines, and control methods. In seamanship the course covers boats, weather, types of ships, buoys, maneuvering rules, duties of deck officers, and rules of road. In communications instruction covers visual signal methods, codes, flags, and procedures.

2A-2B. Naval Science (second year). (2½-2¾) Yr. Mr. Barker and the Staff

Three hours of classroom work and one hour of drill or practical exercise per week.

Prerequisite: course 1A-1B.

During the first semester one hour of instruction will be given in seamanship, one hour in communications, and one hour in electricity. During the second semester similar instruction will be given in seamanship and two hours in navigation.

The instruction in seamanship covers advanced ship handling, towing, surf landings, rules of road, grounding and collision cases, and naval leadership. In electricity the course covers the use of electricity, magnetism, generators, motors, storage batteries, electric drive, searchlights, interior communications, radio, and sonics. In communications are given the organization and operations of naval communication service. The instruction in navigation will include the introduction to practical navigation, sailings, piloting, and chart work.

UPPER DIVISION COURSES

The general prerequisites for admission to the upper division courses are: completion of two years' training in the basic course, selection for further training, and execution of an agreement in writing as explained in the following paragraph:

Any student enrolled in the advanced course of the Naval Reserve Officers' Training Corps who has completed the two academic years in the basic course and who has been selected for further naval training by the President of the University and the Professor of Naval Science and Tactics, and who executes the following written agreement, will be entitled, while not subsisted in kind, to the commutation of subsistence fixed by the Secretary of the Navy in accordance with law:

CONTRACT

In consideration of commutation of subsistence to be furnished in accordance with law, I hereby agree:

First, to continue training in the Advanced Course of the Naval Reserve Officers' Training Corps until the completion thereof as a prerequisite to graduation unless sooner discharged by orders of the Bureau of Navigation, Navy Department;

Second, to devote to naval training the number of hours per academic week prescribed for the Advanced Course in the Department of Naval Science and Tactics by the current annual catalogue of this educational institution, and to devote five hours per week, when prescribed, to such naval training as is ordered;

Third, to participate in one Advanced Course cruise;

Fourth, to be immunized to typhoid fever and smallpox when and as directed to do so by the Professor of Naval Science and Tactics unless satisfactory proof of immunity from these diseases is furnished.

Fifth, near the completion of this course to apply for and accept a commission in the Naval or Marine Corps Reserve, if such be offered, and I consider it a moral obligation on my part to apply for and accept such commission under the conditions so stated.

Qualified graduates of the Naval Reserve Officers' Training Corps will on their application be appointed as ensigns in the Volunteer Naval Reserve without professional entrance examination. After one year's active service in the Fleet they may become eligible for a commission in the regular Navy.

Members of the Volunteer Naval Reserve who associate themselves with Fleet Divisions and attend drill with a division will become eligible for transfer to the Fleet Reserve which carries with it retainer pay and better opportunities to qualify for promotion.

§101A-101B. Advanced Naval Science (third year). (4-4) Yr.

Mr. Barker and the Staff

Four hours of classroom work and one hour of drill or practical exercise per week.

During the first semester two hours of instruction in navigation, one hour in seamanship, and one hour in communications will be given. During the second semester the instruction in seamanship will be replaced by instruction in electricity.

§102A-102B. Advanced Naval Science (fourth year). (3-3) Yr.

Mr. Barker and the Staff

Three hours of classroom work and one hour of drill or practical exercise per week.

(a) Administration: naval policy and administration, naval organization ashore and afloat, Navy Regulations, discipline, Naval Reserve Regulations.

(b) Naval aviation: mission and history of naval aviation, types and uses of naval aircraft, aerology, elementary theory of flying, aircraft engines, aircraft instruments and navigation, aircraft carriers, tactics of naval aircraft.

(c) Military law: naval law, military government and martial law, articles for the government of the Navy, rules of evidence, procedure of naval courts and boards.

(d) Engineering: use of electricity aboard ship, magnetism, generators, motors, storage batteries, electric drive, switchboards, searchlights, interior communication, electric steering, gunnery circuits, radio and sonics.

In addition to 102A-102B students in the Naval Unit will be required to take course 110 during one semester of their senior year.

§110. Advanced Practical Navigation. (2) I, II. Mr. Weeks, Mr. Chadwick

Prerequisite: course 109 as given in previous years to junior students.

Prescribed course for seniors enrolled in the Naval Unit.

§ For details of changes in this course contemplated for 1942-43, apply to the chairman of the department.

OCEANOGRAPHY

- G. F. McEWEN, Ph.D., Professor and Curator of Physical Oceanography.
 FRANCIS B. SUMNER, Ph.D., Professor of Biology.
 HARALD U. SVERDRUP, Ph.D., Professor of Oceanography and Director of the Scripps Institution of Oceanography.
 WILLIAM E. RITTER, Ph.D., LL.D., Professor of Zoölogy, Emeritus.
 THOMAS WAYLAND VAUGHAN, Ph.D., LL.D., Professor of Oceanography and Director of the Scripps Institution of Oceanography, Emeritus.
 WINFRED E. ALLEN, M.A., Assistant Professor of Biology.
 *RICHARD H. FLEMING, Ph.D., Assistant Professor of Oceanography.
 DENIS L. FOX, Ph.D., Assistant Professor of Marine Biochemistry.
 MARTIN W. JOHNSON, Ph.D., Assistant Professor of Marine Biology.
 ERIK G. MOBERG, Ph.D., Assistant Professor of Oceanography.
 *ROGER R. REVELLE, Ph.D., Assistant Professor of Oceanography.
 CLAUDE E. ZOBELL, Ph.D., Assistant Professor of Marine Microbiology.
 MARSTON C. SARGENT, Ph.D., Instructor in Oceanography.
 PERCY S. BARNHART, M.S., Associate in Oceanography and Curator of the Biological Collection.
 STANLEY W. CHAMBERS, Associate in Physical Oceanography.

The courses in oceanography are given at the Scripps Institution of Oceanography at La Jolla, California. For further information concerning the Institution write to the Director.

Advanced degrees: Work leading to the master's or Ph.D. degree in oceanography and certain other marine sciences is offered to a limited number of qualified students subject to the rules and regulations of the University as set forth in the ANNOUNCEMENT OF THE GRADUATE DIVISION, SOUTHERN SECTION. The student must be well trained in the fundamentals before coming to La Jolla. Usually at least two semesters of resident work at Los Angeles will be required of prospective candidates for the doctor's degree, and at least one semester for the master's degree.

Preliminary requirements for a degree in Oceanography: (a) Completion of a baccalaureate major in one of the sciences upon which oceanography is based, viz.: chemistry, geology, mathematics, physics or one of the biological sciences; (b) a reading knowledge of German and French; (c) Mathematics 3A-3B (6); (d) Chemistry 1A-1B (10); (e) Physics 2A-2B (8); (f) basic courses in one or more of the biological sciences (8). Preparation in physical chemistry, organic chemistry, integral calculus, and geology is recommended.

In addition to these preliminary requirements the student is required to complete at least one unit of work in each of four marine sciences besides the research work in his special field.

Requirements for an advanced degree in other fields of study: Through a coöperative arrangement with other departments of the University, a student may do his research work in certain fields of study closely related to oceanography; i.e., biochemistry, physicochemical biology, geological sciences, microbiology, comparative physiology, and zoölogy. The preliminary requirements are the same as those listed under the corresponding departments or fields of study in this Catalogue and in the ANNOUNCEMENT OF THE GRADUATE DIVI-

* Absent on leave, 1941-42.

SION, SOUTHERN SECTION. In addition the student is required to complete at least one unit of work in each of three marine sciences besides the work done in his special field. The credentials and proposed study program of the student must be approved by the chairman of the proper department or field of study, the Dean of the Graduate Division, Southern Section, and the Director of the Institution.

Any department of the University is invited to send its students to the Scripps Institution for special work. Ordinarily the department sending students will be responsible for the direction of the work but arrangements can be made for such students to work under the joint direction of the department and the staff of the Institution. Such students may register in one or more of the marine sciences at the Institution or they may register for some other subject in some other department of the University.

Students may not undertake graduate work at the Scripps Institution without approval in advance from the Dean of the Graduate Division, Southern Section.

UPPER DIVISION COURSES

199A-199B. Special Studies in Marine Sciences. (1-4; 1-4) Yr.

The Staff (Mr. Sverdrup in charge)

Introduction to the research problems, experimental methods and literature of the different marine sciences listed below. Open to advanced students by special arrangement with the chairman of the division in which the work is to be done, subject to the approval of the Director of the Institution.

GRADUATE COURSES

Besides the special prerequisites for each course information concerning which may be obtained upon application, the student must submit to the instructor in charge satisfactory evidence of preparation for the work proposed including the completion of at least twelve units of upper division work basic to the subject of the course. The following are primarily research courses in the different aspects of oceanography.

281A-281B. Physical Oceanography. (1-4; 1-4) Yr.

Mr. Sverdrup, Mr. McEwen

A study of the physical properties of sea water, oceanic circulation and its causes.

282A-282B. Marine Meteorology. (1-4; 1-4) Yr.

Mr. Sverdrup, Mr. McEwen

Interrelations between the circulation of the oceans and that of the atmosphere.

284A-284B. Chemical Oceanography. (1-4; 1-4) Yr.

Mr. Moberg

Chemistry applied to the study of sea water, plankton and other marine materials.

285A-285B. Marine Microbiology. (1-4; 1-4) Yr.

Mr. ZoBell

The distribution of bacteria and closely related microorganisms in the sea and their role in chemical, geological, and biological transformations.

286A-286B. Phytoplankton. (1-4; 1-4) Yr.

Mr. Allen, Mr. Sargent

Qualitative and quantitative studies of marine phytoplankton.

287A-287B. Marine Invertebrates. (1-4; 1-4) Yr.

Mr. Johnson

The distribution, ecology, taxonomy, and productivity of marine zooplankton and other invertebrates.

288A-288B. Marine Biochemistry. (1-4; 1-4) Yr.**Mr. Fox**

Comparative biochemistry and physiology of marine animals with special reference to their general metabolism; interrelationships between marine organisms and their environment.

289A-289B. Biology of Fishes. (1-4; 1-4) Yr.**Mr. Sumner**

The ecology and physiology of fishes with special reference to problems of adaptation to specific factors of marine environments.

RELATED COURSE IN ANOTHER DEPARTMENT**Meteorology 103. Interaction between the Sea and the Atmosphere. (1) I.**

Given on the Los Angeles campus.

Mr. Sverdrup

PHILOSOPHY

DONALD A. PIATT, Ph.D., Professor of Philosophy.

HANS REICHENBACH, Ph.D., Professor of Philosophy.

JOHN ELOF BOODIN, Ph.D., Professor of Philosophy, Emeritus.

ERNEST C. MOORE, Ph.D., LL.D., Professor of Philosophy and Education, Emeritus.

CHARLES H. RIEBER, Ph.D., LL.D., Professor of Philosophy, Emeritus.

HUGH MILLER, Ph.D., Associate Professor of Philosophy (Chairman of the Department).

RICHARD B. O. HOOKING, Ph.D., Assistant Professor of Philosophy.

J. WESLEY ROBSON, Ph.D. Assistant Professor of Philosophy.

ISABEL CREED, Ph.D., Instructor in Philosophy.

PAUL FRIEDLÄNDER, Ph.D., Lecturer in Classics.

Letters and Science List.—All undergraduate courses in this department are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

Preparation for the Major.—Twelve units of lower division courses in philosophy, including courses 20, 21.

The Major.—Twenty-four units in upper division courses, not more than six of which may be taken in allied courses in other departments with the approval of the departmental adviser. Not later than the beginning of the senior year, the student must submit for approval to the department a statement of the courses which he expects to offer in fulfillment of major requirements for graduation.

LOWER DIVISION COURSES

All lower division courses are introductory and carry no prerequisite.

2A-2B. Introduction to Philosophy. (3-3) Yr. Mr. Miller, Mr. Piatt

Introducing the student to the subject-matter of philosophy and its inter-relations with practical life. Attention is focussed on the nature of the basic problems and values of our time, illustrated by a discussion of the leading philosophies of the past and present.

4. Short Introduction to Philosophy. (2) I, II. Mr. Piatt in charge

This course acquaints the student with the vocabulary, subject-matter, and chief types of philosophy. Not open for credit to students who have completed 2A or 2B.

20. History of Greek Thought. (3) I, II. Mr. Robson, Mr. Hocking

The beginnings of Greek science and philosophy; Socrates, Plato, and Aristotle; Greek philosophies in the Roman world; the development of Christian philosophy.

21. History of Modern Thought. (3) I, II. Mr. Hocking, Mr. Robson

The Renaissance, Reformation, and rise of modern science; rationalism in Descartes, Spinoza, Leibniz; empirical philosophy in Locke, Berkeley, Hume; Kant and his successors (Hegel, Marx, Schopenhauer); recent movements.

22. Deductive Logic. (3) I, II.

Mr. Reichenbach, Miss Creed

The elements of formal logic: Aristotle's logic; modern symbolic logic. The forms of reasoning and the fallacies.

23. Inductive Logic and Scientific Method. (3) I, II.

Miss Creed, Mr. Reichenbach

Logic in use; the place of formal reasoning in science and practical life; the canons of scientific method; hypothesis and probability; statistical method.

40. Problems of Ethics and Religion. (2) II.

Mr. Hocking

Human conduct, its rules and natural law; the moral basis of institutions, with special reference to property, the family, and the state; religion and the moral order.

UPPER DIVISION COURSES

Courses numbered 100 to 150 include only general studies, dealing with the principles of wide fields of inquiry, or with the foundations and interrelations of studies pursued in other departments. They are open to all students of junior standing who desire to broaden their education, and who in the opinion of the instructors are prepared by work in this or other departments.

Courses numbered 151 to 199 are more special in character, and are intended for students majoring in philosophy, or interested in special periods or in the philosophical foundations of their special fields. Courses numbered 151 to 179 are historical, and deal with special periods or philosophers. Courses numbered 180 to 198 are systematic, and deal with the logical foundations of mathematics and the natural and social sciences. Students not majoring in philosophy may attend any of the above courses with the consent of the instructor.

100. The Development of Modern Thought. (2) I.

Mr. Miller

A brief study of the major movements of modern thought from the Renaissance to the present, with special attention to the developments and interrelations of science and political practice.

Not open for credit to students who have completed 21.

101. Living Philosophies. (1) I.

The Staff

A series of lectures: Plato, Aristotle, Aquinas, Bacon, Descartes, Hume, Kant, Hegel, J. S. Mill, Nietzsche, Bergson, Royce, James, Dewey. Not open for credit to students who have completed 20, 21, or 100.

104A. Ethics. (3) I.

Mr. Piatt

Morality in theory and practice: the history and development of ethical theory.

104B. Ethics. (3) II.

Mr. Piatt

Morality in theory and practice: the critical application of ethical theory to contemporary civilization, with special reference to economical and political life.

112. Philosophy of Religion. (3) I.

Mr. Hocking

The meaning of religion and its particular problems: the existence and nature of God, human free-will, the problem of evil, the relation of church and state, the rivalry of living religions.

114. History of American Thought. (3) I.

Mr. Robson

A study of philosophical ideas which have influenced American culture from colonial times to the present.

- 121. Political Philosophy. (3) I.** Mr. Miller
The theory of democracy: philosophical foundations in concepts of the individual and the state and their relations; the state and society; the parallel developments of science and democracy; critique of absolutistic doctrines.
- 124. Nineteenth Century Philosophy. (3) II.** Mr. Hocking
A study, in terms of outstanding philosophers, of the social and scientific movements of the nineteenth century: dialectical philosophies, positivism, utilitarianism, evolution, will to power, socialism.
- 136. Esthetics. (3) I.** Miss Creed
Philosophy of art and criticism: a study of esthetic value in the various arts, and of the principles of art criticism.
- 141A. Present Tendencies of Thought. (2) I.** Mr. Robson
A general survey course, acquainting the student with contemporary movements and thinkers: idealism, realism, pragmatism, positivism.
- 141B. Present Tendencies of Thought. (2) II.** Miss Creed
A general survey course, acquainting the student with contemporary movements and thinkers: Mannheim (the sociology of knowledge); dialectical materialism; Rosenberg (Nazism); Spengler; MacLeish (theory of democracy); and others.
- 146. Philosophy in Literature. (3) II.** Mr. Robson
A study of philosophical ideas expressed in the literary masterpieces of Plato, Lucretius, Dante, Shakespeare, Goethe, Wordsworth, Lewis Carroll, Thomas Mann, and others.
- 147. Philosophy of History. (3) II.** Mr. Miller
The problems of historical knowledge and historical method; the relativists, Beard, Croce, etc.; dialectical history in Hegel and Marx; the relation of history to theory; the establishment of objective historical truth.
- 148. Philosophy of Nature. (3) I.** Mr. Reichenbach
The physical universe and man's place in it in the light of modern discoveries.
- *149. Introduction to the Philosophy of Science. (3) I.** Mr. Reichenbach
A study of the nature and validity of the methods and most basic concepts of natural science.
- 152. Plato and his Predecessors. (3) I.** Mr. Friedländer
- 153. Aristotle and Later Greek Philosophy. (2) II.** Mr. Friedländer
- *157. Medieval Philosophy. (3) I.** Mr. Hocking
Philosophy in Christendom from the fourth to the fourteenth century, with particular reference to Augustine and Thomas Aquinas.
- 162. Continental Rationalism. (2) I.** Miss Creed
A study of the philosophies of Descartes, Spinoza, and Leibniz.
- *163. British Empiricism. (2) I.** Mr. Robson
A study of the philosophies of Locke, Berkeley, and Hume.
- 166. Kant. (2) II.** Miss Creed
Reading of the Critique of Pure Reason, with explanatory discussion and critical comment.

* Not to be given, 1941-42; to be given in 1942-43.

- 172. Contemporary Philosophy: Idealism. (2) I.** Mr. Hocking
Idealism developed systematically, through a study of such categories as time, space, substance, cause, purpose; the material for study drawn from Bradley, Royce, Bergson, Croce, and their forerunners.
- 174. Contemporary Philosophy: Realism. (2) II.** Mr. Robson
Theories of knowledge and nature in Alexander, Moore, Russell, Santayana, Whitehead, Woodbridge, and others.
- *175. Contemporary Philosophy: Pragmatism. (2) II.** Mr. Piatt
A systematic and critical analysis of American pragmatism, with special reference to James, Dewey, and Mead.
- *180. Philosophy of Space and Time. (3) II.** Mr. Reichenbach
Euclidean and non-Euclidean geometry; problem of physical space; presentativeness of geometrical systems; structure of time; philosophical elements of Einstein's theory of relativity; gravitation, matter, geometry.
- *181. Theory of Knowledge. (2) I.** Miss Creed
A systematic inquiry into the structure, sources, criteria, and limits of human knowledge.
- 183. Social Philosophy. (3) II.** Mr. Piatt
Analysis of the basic concepts and methods of the social sciences. The relation of the social to the biological and physical sciences, and the bearing of the social sciences on human conduct today.
- *184. Advanced Logic. (3) I, II.** Mr. Reichenbach
Elements of logistics; foundations of mathematics; concept of the infinite; paradoxes of logic; logic and language; multi-valued logics.
- 185. Foundations of Probability and Statistics. (3) II.** Mr. Reichenbach
Logical and mathematical theories of probability; development of the mathematical calculus of probability in a logistic form; outlines of a general mathematical theory of probability and statistics; different interpretations of probability; problem of induction; probability logic.
- 198. Conferences and Reading for Honors. (2) I, II.** Miss Creed in charge
Limited to seniors majoring in philosophy. Conference and reading in the history of philosophy. May be taken twice for credit.
- 199A-199B. Selected Problems in Philosophy. (2-3; 2-3) Yr.** Mr. Miller in charge

GRADUATE COURSES

- 251. Seminar: Metaphysics. (3) II.** Mr. Miller
- 253. Seminar: Pragmatism. (3) I.** Mr. Piatt
- *254. Seminar: Ethics and Theory of Value. (3) I.** Mr. Piatt
- *257. Seminar: Philosophy of History. (3) II.** Mr. Miller
- 260. Seminar: Philosophy of Mathematics. (3) I.** Mr. Reichenbach
- *262. Seminar: Philosophy of Physics. (3) I.** Mr. Reichenbach
- *263. Seminar: Epistemology. (3) I.** Mr. Reichenbach
- 264. Seminar: Logic. (3) II.** Mr. Reichenbach
- 298A-298B. Special Study: Selected Problems in Philosophy. (2-4; 2-4) Yr.** Mr. Piatt in charge

* Not to be given, 1941-42; to be given in 1942-48.

PHYSICAL EDUCATION FOR MEN

JOHN F. BOVARD, Ph.D., Professor of Physical Education and Director of Men's Gymnasium (Chairman of the Department).

FREDERICK W. COZENS, Ph.D., Professor of Physical Education.

WILLIAM H. SPAULDING, A.B., Director of Athletics.

PAUL FRAMPTON, M.A., Associate Supervisor of Physical Education for Men.

CECIL B. HOLLINGSWORTH, M.A., Assistant Supervisor of Physical Education for men.

WILBUR C. JOHNS, Ed.B., Assistant Supervisor of Physical Education for Men.

DONALD K. PARK, A.B., Assistant Supervisor of Physical Education for Men.

***NORMAN D. DUNCAN, M.A.,** Junior Supervisor of Physical Education for Men.

DONALD T. HANDY, Ed.B., M.A., Junior Supervisor of Physical Education for Men.

THOMAS E. HELT, A.B., Junior Supervisor of Physical Education for Men.

EUGENE E. BILLUPS, B.S., Assistant in Physical Education for Men.

***M. BRIGGS HUNT, Ed.B.,** Assistant in Physical Education for Men.

EDWARD A. MURPHY, Assistant in Fencing.

JAMES G. SCHAEFFER, A.B., Assistant in Physical Education for Men.

ROBERT JAY THOMAS, A.B., Assistant in Physical Education for Men.

WILLIAM D. TROXEL, B.S., Assistant in Physical Education for Men.

DONALD MACKINNON, M.D., Physician for Men.

WILLIAM J. NORRIS, M.D., Consultant, Student Health Service.

LEWIS GUNTHER, M.D., Consultant, Student Health Service.

Physical Education 3 is prescribed for all first-year and second-year undergraduate male students who are under twenty-four years of age. A student claiming exemption because of age will present to the Registrar a petition on the prescribed form for such exemption. A student whose health requires either exemption or special assignment will report directly to the Medical Examiner. Pending action on his petition, the student will enroll in and regularly attend the required course in physical education.

Medical Examination.—(a) Students entering the University for the first time and (b) reëntering students must pass a medical examination upon admission. All students are given an examination each year. The examiner may exempt the student from required military training; he may assign the student to a restricted exercise section of Physical Education 3.

The College of Applied Arts

Preparation for the Major.—Chemistry 1A or 2A-2B; Physiology 1; Zoölogy 1A or Biology 1; Zoölogy 35; Physical Education 1, 5, 6, 7, 8, 9, 30, 40.

* Absent on leave, 1941-42.

The Major.—Thirty-six units of upper division courses in physical education and related fields, including courses §120, §131, §140, §149, §182, §190, §192A–192B, §356A–§356B, and ten units to be selected from §104B, §114A, §180, §183, §191, §199A, §199B, §354, §355A–§355B, Education 111, 112, Psychology 110.

The Minor.—Twenty units of coördinated courses (aside from those taken in education), not less than six of which are in the upper division.

The Special Secondary Teaching Credential in Physical Education.—In addition to the major, courses 354 and 355A–355B are required. Students expecting to teach must include in their curriculum at least 12 units each in physical activities, in physical education theory and practice, and in health education theory and practice. For other requirements consult the ANNOUNCEMENT OF THE SCHOOL OF EDUCATION, LOS ANGELES.

The College of Letters and Science†

Letters and Science List.—Courses 1 and 3 are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

LOWER DIVISION COURSES

1. Hygiene and Sanitation. (2) I, II.

Mr. MacKinnon

†3. Prescribed Physical Education for Freshmen and Sophomores. (½) I, II. The Staff

Archery, baseball, basketball, boxing, cricket, dance fundamentals, fencing, folk dancing, American football, golf, group games, heavy apparatus, handball, rugby, soccer, social dancing, swimming, tennis, track, tumbling, water polo, wrestling, individual gymnastics. Classes meet twice weekly. Section assignments are made by the department after students have been classified according to their performance in the "General Athletic Ability Test" given by the staff to all entering men during the first week of each semester.

Physical Education 3 may be elected by students in the junior and senior years.

5. First Aid and Bandaging. (2) II.

Mr. Park

The care of common accidents and emergencies on the playground and athletic field.

*6. Professional Activities (Men). (1½) I.

The Staff

The class meets for two hours two times a week.

Open only to students with a major or a minor in physical education.

The fundamental activities necessary for teaching in the secondary and college fields. Students taking this course are excused from the regular prescribed physical education, course 3. Professional students must also take training in tennis, swimming, games, and wrestling in course 3.

* Not to be given, 1941–42.

§ Courses so marked are listed under the Department of Physical Education for Women.

† For full statement of the requirement of this course refer to page 86.

‡ The University of California at Los Angeles does not offer a major in physical education in the College of Letters and Science. In the College of Letters and Science at Berkeley a combination major of physical education and hygiene may be taken. Students planning to become candidates for the degree of Bachelor of Arts at Berkeley, offering this major, are referred to the publications of the departments at Berkeley.

- *7. Professional Activities (Men). (1½) II.** The Staff
The class meets for two hours two times a week.
Open only to students with a major or a minor in physical education.
A continuation of course 6.
- 8. Professional Activities (Men). (1½) I.** The Staff
A continuation of course 7.
- 9. Professional Activities (Men). (1½) II.** The Staff
A continuation of course 8.
- 20. Fundamentals of Scouting. (2) I.** Mr. Frampton
Lectures; three field trips required.
Need of organizations for youth; history and growth of the Boy Scouts of America; the Boy Scout program; organization of a troop and techniques of troop management; fundamentals involved in troop activities.
- 40. The Technique of Teaching Swimming and Life Saving. (2) II.** Mr. Park
Preparation for and conduct of the Red Cross Life Saving Test and the Red Cross Life Saving Examiner's Test; advanced techniques in teaching swimming.

UPPER DIVISION COURSES

- 131. Administration of Physical Education. (3) II.** Mr. Bovard
Prerequisite: Physical Education for Women 120.
The scope of the field of physical education and its relation to modern education theory. Details of the organization of physical education activities, organization and classification of children, planning of school programs, arrangement and construction of equipment and the principles which govern these.
- 140. Physical Education Tests and Measurements. (2) I.** Mr. Cozens
Anthropometric measurements, cardiovascular and physiological ratings, physical efficiency, and motor ability tests. Common tests used in physical education; statistical method applied to physical education measurement.
- 149. Kinesiology. (3) I.** Mr. Frampton
Prerequisite: Zoölogy 35.
- 182. Corrective Physical Education. (3) II.** Mr. Johns
Two clinic hours a week to be arranged in addition to lecture and demonstration periods.
Prerequisite: course 149.
The application of massage and exercise to the treatment of orthopedic and remedial conditions.
- 191. Conditioning of Athletes and Care of Injuries. (2) II.** Mr. Johns
Lecture, one hour; laboratory, three hours.
Prerequisite: course 190.
Modern principles and practices in conditioning and care of athletes; individual variation and needs as to sleep, diet, health, and activity habits; care of injuries, including massage, physiotherapy, taping, and protective equipment.

* Not to be given, 1941-42.

199A-199B. Problems in Physical Education. (1-4; 1-4) Yr.

Mr. Cozens, Mr. Bovard

GRADUATE COURSES**250A-250B. Seminar in Physical Education. (3-3) Yr. Mr. Bovard**

Prerequisite: the consent of the instructor.

A study of the theory of physical education, a critical review of selected studies, literature, and practices.

276. Research in Physical Education. (2) I. Mr. Cozens

Prerequisite: the consent of the instructor.

The meaning, methods, and techniques of research procedure; applications of this training to the independent solution of a problem.

277. Research in Physical Education Measurement. (2 to 4) II. Mr. Cozens

Prerequisite: the consent of the instructor.

For advanced students who have problems requiring research in tests and measurement or advanced statistical procedures.

278. Research Problems. (2 to 4) I, II. Mr. Bovard

Prerequisite: the consent of the instructor.

For advanced students who have problems in organization, administration, or biological backgrounds of physical education.

PROFESSIONAL COURSES IN METHOD**354. The Technique of Teaching Elementary School Activities. (2) I.**

Mr. Frampton

The technique of teaching activities in the elementary school leading up to games of higher organization.

***355A-355B. The Technique of Teaching Gymnastic Activities. (2-2) Yr.**

Mr. Hollingsworth

Prerequisite: courses 6, 7, 8, 9, and training in gymnastics, and boxing or wrestling.

Tactics, free exercises, apparatus, gymnastic dancing, and gymnastic games.

356A. The Technique of Teaching Athletic Activities. (2) I.

Mr. Spaulding, Mr. Frampton, Mr. Johns, Mr. Schaeffer

Prerequisite: courses 6, 7, 8, 9, and the consent of the instructor.

Track, rugby, and basketball.

356B. The Technique of Teaching Athletic Activities. (2) II.

Mr. Spaulding, Mr. Frampton, Mr. Johns, Mr. Schaeffer

Prerequisite: courses 6, 7, 8, 9, and the consent of the instructor.

Football, baseball, and soccer.

COURSES LISTED IN THE**DEPARTMENT OF PHYSICAL EDUCATION FOR WOMEN****120. Principles of Physical Education. (2) II. Miss Cubberley****190. Physiology of Exercise. (3) I. Mr. Bovard, Mrs. Johnson****192A-192B. Administration of Health Education. (3-3) Yr.**

Miss Harshberger, Mrs. Johnson

* Not to be given, 1941-42.

PHYSICAL EDUCATION FOR WOMEN

JOHN F. BOVARD, Ph.D., Professor of Physical Education (Chairman of the Department).

FREDERICK W. COZENS, Ph.D., Professor of Physical Education.

HAZEL J. CUBBERLEY, M.A., Associate Supervisor of Physical Education for Women.

MARTHA B. DEANE, B.S., Associate Supervisor of Physical Education for Women and Director of Women's Gymnasium.

DIANA W. ANDERSON, M.A., Assistant Supervisor of Physical Education for Women and Supervisor of Training, Physical Education.

LUCILE R. GRUNEWALD, M.A., Assistant Supervisor of Physical Education for Women.

EDITH R. HARSHBERGER, M.A., Assistant Supervisor of Physical Education for Women.

BERNECE H. HOOPER, M.A., Assistant Supervisor of Physical Education for Women.

EDITH I. HYDE, M.A., Assistant Supervisor of Physical Education for Women.

ORSIE THOMSON, M.A., Assistant Supervisor of Physical Education for Women.

GEORGIA B. JOHNSON, Ph.D., Instructor in Physical Education for Women.

MARJORY G. ALLEN, Ed.B., Junior Supervisor of Physical Education for Women.

ELEANOR BELLE BROOKS, B.S., Junior Supervisor of Physical Education for Women.

MARGARET DUNCAN, M.A., Junior Supervisor of Physical Education for Women.

RUTH FULTON, M.A., Junior Supervisor of Physical Education for Women.

RUTH FULTON, —, Junior Supervisor of Physical Education for Women.

ETHEL S. BRUCE, Associate in Physical Education for Women.

MYRA KINCH GALEA, Ed.B., Assistant in Physical Education for Women.

ROBERT TYLER LEE, Assistant in Dance and Assistant in Art.

LILLIAN R. TITCOMB, M.D., Physician for Women.

The College of Applied Arts

The Department of Physical Education for Women offers two curricula:

A. Curriculum for prospective teachers.

Preparation for the Major.—Courses 5, 30, 31, 32, 44, Chemistry 1A or 2A-2B, Biology 1, Physiology 1, and Zoölogy 35.

The Major.—Thirty-six units of upper division courses in physical education and related fields, including courses 120, 149, 171, 172, 182, 190, 192A-192B, 321A-321B, 321C-321D, and 7 units to be selected from 104A-104B, 114A, 114B, 130A, 130B, 131, 133, 135, 136, 140, 180, 183, Education 111, 112, 180, Psychology 110.

The Minor for the Bachelor's Degree.—Twenty units of coördinated courses (aside from those taken in education), not less than 6 of which are in the upper division.

The Special Secondary Teaching Credential in Physical Education.—The curriculum must include at least 12 units of physical activities, 12 units of physical education theory and practice, and 12 units of health education theory and practice. For other requirements consult the ANNOUNCEMENT OF THE SCHOOL OF EDUCATION, LOS ANGELES.

The General Secondary Teaching Credential.—A teaching major of from 40 to 54 units is required, of which not less than 24 units are upper division or graduate courses approved by the School of Education. For other requirements, including those of the minor, consult the ANNOUNCEMENT OF THE SCHOOL OF EDUCATION, LOS ANGELES.

B. Curriculum for the Group Major in Dance.

Preparation for the Major.—Required: Art 1A-1B, 2A-2B, 48, English 36A-36B, course 31. Recommended: Biology 1, Chemistry 2A-2B, English 1A-1B, French 1, 2, Music 2A-2B, Philosophy 2A-2B or 20 and 21, Physiology 1, Psychology 21, 22, Zoölogy 35.

The Major.—Courses 114A, 120, 130A-130B, 133, 135, 149, and three units to be selected from courses 104A-104B, 114B, 131, 140, 172, 180, 190, 192A; Art 101 or 183, English 114A-114B, Philosophy 136, Psychology 138, 171.

The Minor for the Bachelor's Degree.—Either English or art is recommended; English 31, 117J, 153, or Art 101 (or 183), 168A-168B, and four units to be chosen on recommendation of the Committee on Group Major in Dance.

The College of Letters and Science*

Letters and Science List.—Courses 2, 4, 44, 114A-114B, 120, 133, 135, 136, 140, 180, and 193 are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

LOWER DIVISION COURSES

2. Hygiene. (2) I, II.

Mrs. Titcomb

†4. Prescribed Physical Education for Freshmen and Sophomores. (1) I, II.

Miss Deane and the Staff

Classes meet twice weekly. Section assignments are made only by the department.

The following activities are offered: archery, badminton, basketball, bowling, character dancing, dance fundamentals, deck sports, fencing, folk dancing, golf, hockey, lacrosse, social dancing, swimming, tennis, volleyball, games for the elementary school, and dancing for the elementary school. Students whose physical condition indicates the need of modified activity are assigned to individual physical education classes.

Candidates for the general elementary teaching credential are required to

* The University of California at Los Angeles does not offer a major in physical education in the College of Letters and Science. A group major in physical education and hygiene is offered in the University at Berkeley. Students wishing to satisfy the requirements for this major are referred to the GENERAL CATALOGUE of the departments at Berkeley.

† For full statement of the requirement of this course refer to page 86.

take one semester each of games and dancing for the elementary school, in addition to two elective courses.

This course may be elected for credit by juniors and seniors.

5. Safety Education and First Aid. (2) I, II.

Mrs. Johnson

Prevention and care of common accidents and emergencies in the home and school.

30. Introduction to Physical Education. (1) I.

Miss Hyde

The scope and significance of physical education in the modern school program.

31. Professional Activities (Women). (3) I.

Miss Deane, Miss Hooper,

Mrs. Johnson

Open only to students with a major or minor in physical education.

Fundamental *rhythmic* activities necessary for teaching on the secondary and college levels; music analysis for dance.

Students taking this course are excused from the physical education requirement, course 4.

32. Professional Activities (Women). (3) II.

Mrs. Bruce, Miss Thomson, Miss Duncan

Open only to students with a major or minor in physical education.

Fundamental *athletic* activities necessary for teaching on the secondary and college levels.

Students taking this course are excused from the physical education requirement, course 4.

40. The Technique of Teaching Swimming and Life Saving. (2) II.

Prerequisite: Students must be at least twenty years of age, have a Red Cross Senior Life Saving Certificate up to date, and show a definite need for the appointment to receive a Red Cross Life Saving Instructor's Certificate.

Preparation for and conduct of the Red Cross Life Saving Tests and the Red Cross Life Saving Instructor's Test; advanced technique in teaching swimming.

44. Principles of Health Education. (2) I, II.

Miss Harshberger

A study of personal and community health problems.

UPPER DIVISION COURSES

104A. Club Activities. (2) I.

Miss Hooper

Training course for leaders of girls' clubs and school organizations. Organization and program planning, and analysis of problems of leadership. Practical experience in leadership in one of the local council organizations in the city.

104B. Camp Craft. (2) II.

Miss Hooper

Training course for camp counselors. Theory and practice in camp activities. Practical experience in camp skills in week-end training camp at Pacific Palisades.

114A. Folk Festivals. (2) I.

Miss Hooper

The purpose, source of material, organization and administration of folk festivals. Presentation of a Christmas folk festival.

114B. Folk Festivals. (2) II.

Miss Hooper

Study of folklore, festivals, and pageants. An original folk festival or pageant is required from each student.

120. Principles of Physical Education. (2) II.

Miss Cubberley

A survey of the more significant influences which serve as a foundation for theory and practice in physical education. The implications of these factors with respect to objectives, methods, and materials of physical education.

130A-130B. Dance Composition Workshop. (2-2) Yr.

Miss Deane, Mrs. Galea

Prerequisite: course 135 and Art 168A.

An advanced laboratory course in dance composition and production to provide students with an opportunity to apply the work given in course 135 and Art 168A.

***133. Dance Recital. (3) II.**

Miss Deane, Mr. Lee

Prerequisite: course 31 or 4 (Advanced Dance Fundamentals).

Development of dances for a recital program. Production work on sets and costumes. Participation in dance recital.

135. History of Dance and the Related Arts. (2) I, II.

Mr. Lee

Prerequisite: course 31 or the equivalent.

A study of the relation of music, costume, and dance in various periods.

136. History of Dance in America. (2) I.

Miss Deane, Mr. Lee

A study of dance in relation to the development of our present American culture.

149. Kinesiology. (3) I.

Miss Grunewald

Prerequisite: Zoölogy 35.

A study of the joint and muscular mechanism of movements.

171. Organization of Athletics. (2) I.

Miss Thomson

Prerequisite: courses 120, 321A-321B.

A study of practical problems involved in the conduct of athletic programs in secondary schools and colleges. Emphasis is placed upon the organization of activities for a playday for the Los Angeles County elementary schools. Reports of special investigations and committee work.

172. Organization of Dance. (2) I.

Miss Deane

Prerequisite: courses 120, 321C-321D.

A study of public performances in the school program: their purpose, types, sources of material, development, organization and presentation. The use of dance, music, lighting, costuming, etc.

180. Administration of Community Recreation. (2) II.

Miss Hooper

Prerequisite: senior standing.

Designed to meet the needs of recreation leaders in playgrounds, industrial organizations, and social service institutions.

182. Corrective Physical Education. (3) II.

Miss Grunewald

Prerequisite: course 149.

Study of body mechanics and of the causes and treatment of faulty antero-posterior and lateral deviations and foot and leg conditions, with special emphasis on the individual program adaptations and corrective procedures. Methods of teaching corrective gymnastics to large groups.

* Not to be given, 1941-42.

- 183. Massage and Therapeutic Exercise. (3) I.** Miss Grunewald
Prerequisite: course 182.
Study of massage and therapeutic exercises applied in the treatment of disturbances of the cardio-vascular, nervous, muscular, and digestive systems.
- 190. Physiology of Exercise. (3) I.** Mr. Bovard, Mrs. Johnson
Prerequisite: Physiology 1.
A study of the effects of physical education activities on the human organism and the physiological bases for program construction.
- 192A. Administration of Health Education. (3) I.**
Prerequisite: course 190. Miss Harshberger, Mrs. Johnson
Health instruction in the elementary and secondary schools. A study of learning experiences directed toward the development of health knowledge, practices and attitudes and their function in improving health behavior.
- 192B. Administration of Health Education. (3) II.**
Prerequisite: course 190. Miss Harshberger, Mrs. Johnson
Health protection. A consideration of the problems, principles, and methods involved in the supervision of child health in schools, camps, and playgrounds.
- 193. Social Aspects of Health. (2) I, II.** Miss Harshberger
Not open to majors in physical education nor to students who have credit for 192A, 192B.
A general survey of health problems in the secondary school, with special emphasis on individual health and development as well as on the social aspects of living.

PROFESSIONAL COURSES IN METHOD

- 321A-321B. Principles of Teaching Athletics. (2-2) Yr.** Miss Thomson
Prerequisite: course 32 or the equivalent.
Analysis of problems in teaching athletic activities, including techniques and game forms, with special reference to their use in planning lesson units. Advanced practice is offered in team activities with emphasis on the interpretation of rules and the technique of officiating.
Field work in officiating in the city schools and recreation centers is required.
- 321C-321D. Principles of Teaching Dance. (2-2) Yr.** Miss Deane
Prerequisite: course 31 or its equivalent.
A survey of the program in dance from kindergarten to university. Practice in dance fundamentals—intermediate.
- 330. Physical Education in the Elementary School. (3) I, II.** Miss Anderson
Prerequisite: junior standing, courses 44 and 4 (general elementary games and dancing for the elementary school) or the equivalent, and Education 111.
Required of all candidates for the General Elementary Credential. Each student must plan a program with two consecutive hours a week free for observation, between the hours of 9 a.m. and 3 p.m.

COURSES LISTED IN THE
DEPARTMENT OF PHYSICAL EDUCATION FOR MEN

131. Administration of Physical Education. (3) II.	Mr. Bovard
140. Tests and Measurements in Physical Education. (2) I.	Mr. Cozens
199A-199B. Problems in Physical Education. (1-4; 1-4) Yr.	Mr. Bovard, Mr. Cozens
250A-250B. Seminar in Physical Education. (3) Yr.	Mr. Bovard
276. Research in Physical Education. (2) I.	Mr. Cozens
277. Research in Physical Education Measurement. (2 to 4) II.	Mr. Cozens
278. Research Problems. (2 to 4) I, II.	Mr. Bovard

PHYSICS

SAMUEL J. BARNETT, Ph.D., Professor of Physics.

JAKOB BJERKNES, Ph.D., Professor of Meteorology.

JOSEPH KAPLAN, Ph.D., Professor of Physics (Chairman of the Department).

*VERN O. KNUDSEN, Ph.D., Professor of Physics.

JOHN MEAD ADAMS, Ph.D., Associate Professor of Physics.

LAURENCE E. DODD, Ph.D., Associate Professor of Physics.

HIRAM W. EDWARDS, Ph.D., Associate Professor of Physics.

JOSEPH W. ELLIS, Ph.D., Associate Professor of Physics.

JÖRGEN HOLMBOE, M.Sc., Associate Professor of Meteorology.

E. LEE KINSEY, Ph.D., Associate Professor of Physics.

ARTHUR H. WARNER, Ph.D., Assistant Professor of Physics.

*LEO P. DELSASSO, A.B., Instructor in Physics.

ROBERT D. FLETCHER, M.Sc., Instructor in Meteorology.

ROBERT W. LEONARD, Ph.D., Instructor in Physics.

MORRIS NEIBURGER, S.B., Instructor in Meteorology.

NORMAN A. WATSON, Ph.D., Instructor in Physics.

HARALD U. SVERDRUP, Ph.D., Professor of Oceanography, Scripps Institution of Oceanography.

Letters and Science List.—All undergraduate courses in physics and meteorology are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

Preparation for the Major in Physics.—Required: Physics 1A, 1B, 1C, 1D, or their equivalents (in meritorious cases Physics 2A–2B may be accepted) with an average grade of C or higher; Chemistry 1A–1B; Mathematics C, 3A, 3B, 4A, or their equivalents. Recommended: a reading knowledge of German and French.

The Major in Physics.—Twelve units of upper division physics, consisting of 105, 107A, 108B, 108C, and 110A; and twelve units chosen from other upper division courses in physics, Mathematics 119, 122A–122B, 124, 125, Chemistry 110, and Astronomy 117A–117B, 199A–199B. At least eight of these latter twelve units shall be courses in the Department of Physics.

Preparation for the Major in Physics-Meteorology.—Physics 2A–2B, or 1A, 1B, 1C, 1D; Mathematics C, 8, 3A, 3B, 4A, or their equivalents. A reading knowledge of French and German is recommended.

The Major in Physics-Meteorology.—Physics 105, 112; Meteorology 101A–101B, 102, Astronomy 117A; the remaining upper division courses may be chosen from other courses in meteorology, physics, or mathematics. The acceptable courses in mathematics are 119, 122A–122B, 124, 125; Geography 113, 114 are also acceptable towards the major.

Laboratory Fees.—Courses 1A, 1B, 1C, 1D, 2A, 2B, \$5; 108A, 109, \$6; 107A, 107B, 108C, 113C, 114C, 116C, 116D, \$12; Meteorology 100C, 100D, \$5. The student will, in addition be held responsible for all apparatus lost or broken.

* In residence second semester only, 1941–42.

* Absent on leave, 1941–42.

PHYSICS**LOWER DIVISION COURSES**

Prerequisite for 1A, 1B, 1C, 1D: either (1) the high school course in physics, or (2) trigonometry and the high school course in chemistry. Prerequisite for course 2A-2B: (1) three years of high school mathematics, or (2) two years of high school mathematics and college algebra. Prerequisites for course 4A-4B are elementary algebra and plane geometry.

Physics 1A, 1B, 1D and 1C constitute a two-year sequence in general physics which is required of, or recommended for, major students in physics and astronomy and of students in pre-engineering, pre-mining, and pre-chemistry. Physics 1A and 1B are required of students in architecture, and Physics 1A and either 1B, 1C or 1D are required of major students in chemistry. Other students may elect any part of the course but at least two parts are necessary to meet the laboratory requirement for the degree of Associate in Arts or upper division standing. Physics 1A is prerequisite to any of the other courses in this sequence.

Students who have credit for courses 2A-2B or 4A-4B may receive additional credit of not more than one and one-half units for each of courses 1A and 1B, and not more than two units for each of courses 1C and 1D. In general, not more than twelve units of credit will be given for any amount of lower division work. Credit in excess of twelve units will be given only in exceptional cases, when approved by the department.

1A. General Physics: Mechanics of Solids. (3) I, II.

Mr. Adams, Mr. Leonard, Mr. Dodd

Lecture and laboratory, four hours; demonstration one hour. Fee, \$5.

1B. General Physics: Mechanics of Liquids, and Heat. (3) II.

Mr. Dodd, Mr. Delsasso, Mr. Watson

Lecture and laboratory, four hours; demonstration one hour. Fee, \$5.

Prerequisite: course 1A.

1C. General Physics: Electricity and Magnetism. (3) II.

Mr. Delsasso

Lectures, two hours; laboratory, three hours.

Prerequisite: course 1A and a knowledge of elementary calculus. Fee, \$5.

1D. General Physics: Light and Sound. (3) I.

Mr. Ellis

Lectures, two hours; laboratory, three hours. Fee, \$5.

Prerequisite: course 1A.

2A-2B. General Physics. (4-4) Yr. Mr. Edwards, Mr. Kaplan, Mr. Kinsey

Lecture, three hours; laboratory, two hours; demonstration, one hour. Fee, \$5 a semester.

Mechanics, sound, heat, light, electricity. Prescribed for premedical students.

4A-4B. General Physics. (3-3) Yr.

Mr. Barnett

Prerequisite: elementary algebra and plane geometry.

A descriptive course fully illustrated by experiments. Course 4B may be taken before 4A with permission of the instructor.

UPPER DIVISION COURSES

Prerequisite for all upper division courses: Physics 1A, 1B, 1C, 1D, or 2A-2B (in special cases, 4A-4B); Mathematics 3B, 4A; or the equivalents.

- 105. Analytic Mechanics. (3) I.** Mr. Watson
The statics and dynamics of particles and rigid bodies.
- 107A. Electrical Measurements. (3) I.** Mr. Warner, Mr. Leonard
Prerequisite: course 1C. Fee, \$12.
Laboratory exercises in the measurement of direct current quantities, with explanatory lectures on electricity and magnetism.
- 107B. Electrical Measurements. (3) II.** Mr. Warner, Mr. Delsasso
Prerequisite: course 107A. Fee, \$12.
Laboratory exercises with alternating current circuits, and lectures on electric circuit theory, the propagation of electric waves, and thermionic vacuum tubes.
- 108A. Geometrical Optics. (3) II.** Mr. Dodd
Lectures, demonstrations, and laboratory.
Prerequisite: course 1D or 2B, or equivalent. Fee, \$6.
Geometrical methods applied to the basic optics of mirrors, prisms, and lenses. The Hamiltonian approach to the problems of convergent and divergent optical systems.
- 108B. Physical Optics. (3) I.** Mr. Ellis
Lectures and demonstrations. Interference, diffraction, polarization, and their applications.
- 108C. Physical Optics Laboratory. (1) I.** Mr. Watson
Fee, \$12.
- 109. Modern Optical Instruments. (3) I.** Mr. Dodd
Prerequisite: course 108A. Fee, \$6.
Specialized studies, conducted on a semiseminar basis with lectures and laboratory, in the applied optics of modern instruments as used in industrial laboratories, photogrammetry, astronomy, range-finding, surgery, etc. Attention given to methods of design.
- 110A. Electricity and Magnetism. (2) I.** Mr. Barnett
The elementary mathematical theory, with a limited number of experimental demonstrations.
- 110B. Electricity and Magnetism. (3) II.** Mr. Barnett
Prerequisite: course 110A. A continuation of course 110A.
- 112. Heat. (3) I.** Mr. Adams
Thermodynamics, with applications to physical chemistry.
- 113. Introduction to Spectroscopy and Quantum Theory. (3) II.** Mr. Ellis
- 113C. Spectroscopy Laboratory. (1) II.** Mr. Watson
Fee, \$12.
Prerequisite or concurrent: course 113 or Astronomy 117B.
- †114A-114B. Mechanics of Wave Motion and Sound. (3-3) Yr.** Mr. Knudsen
Lectures and demonstrations on the fundamental theory of wave motion and sound, with applications to recent developments in acoustics.

† In 1941-42, 114A will be given in the second semester; 114B will not be given.

***114C. Mechanics of Wave Motion and Sound Laboratory. (1) II.**

Mr. Knudsen, Mr. Delsasso

Prerequisite: courses 107 and 114B or consent of the instructor. Fee, \$12.

115. Kinetic Theory. (3) II.

Mr. Adams

The classical kinetic theory of gases, with applications to viscosity, diffusion, and thermal conduction.

116A-116B. Electronics. (3-3) Yr.

Mr. Warner

Prerequisite: senior standing.

The properties of electrons; thermionic and photoelectric emission; the conduction of electricity in solids and gases; vacuum tubes and circuits.

116C-116D. Electronics Laboratory. (1-1) Yr.

Mr. Warner

Fee, \$12 a semester.

121. Atomic Physics. (3) II.

Mr. Adams

Lectures with demonstrations, and readings.

An introductory view of the properties and constituents of atoms, as disclosed by the advances of the past thirty-five years.

199A-199B. Special Problems in Physics. (2-2) Yr. Mr. Kaplan in charge**GRADUATE COURSES**

Courses 208 or 213A or 213B, 210A, 212 or 215, and 220A are required of all candidates for the master's degree with major in physics.

208. Classical Optics. (3) I.

Mr. Ellis

Propagation of light waves in isotropic and anisotropic media, interference, diffraction, dispersion, and polarization on the basis of the electromagnetic theory of light.

210A-210B. Electricity and Magnetism; Advanced Course. (3-3) Yr.

Mr. Barnett

Electrostatics, electrodynamics, electron theory, magnetism, restricted theory of relativity, theory of radiation. Open to graduate students who have taken 110A-110B, and to other graduate students with the consent of the instructor.

212. Thermodynamics. (3) II.

Mr. Kaplan

213A. Spectra and Structures of Diatomic Molecules. (3) II.

Mr. Ellis

Rotational, vibrational, electronic, and Raman spectra of diatomic molecules, with applications.

***213B. Spectra and Structures of Polyatomic Molecules. (3) II.**

Mr. Ellis

Rotational, vibrational, and Raman spectra of polyatomic molecules in the gaseous, liquid, and solid states.

***215. Statistical Mechanics. (3) II.**

Mr. Kaplan

220A. Theoretical Mechanics. (3) I.

Mr. Kinsey

***220B. Theoretical Mechanics. (3) II.**

Mr. Kinsey

220C. Quantum Mechanics. (3) II.

Mr. Kinsey

* Not to be given, 1941-42.

280. Seminar in Physics. (2 or 3) Mr. Kaplan in charge
 For 1941-42: *Military Acoustics*. (3) II. Mr. Knudsen
Acoustics. (3) I. Mr. Knudsen
Hydrodynamics. (3) I. Mr. Holmboe
- 290A-290B. Research. (1-6; 1-6) Yr. Mr. Kaplan in charge

COURSES IN ANOTHER DEPARTMENT

- Astronomy 117A-117B. Astrophysics. (3-3) Yr. Mr. Kaplan
- Astronomy 199A-199B. Sec. 2. Special Studies in Astrophysics. (2-2) Yr. Mr. Kaplan

METEOROLOGY

UPPER DIVISION COURSES

- †100A-100B. Synoptic Meteorology. (3-3) Yr. Mr. Bjerknes
 The synoptic weather maps; world wide survey of meteorological elements; radiation, convection, evaporation, condensation, precipitation; the general circulation; tropical cyclones; extra-tropical disturbances; orographical influences; weather forecasting.
- †100C-100D. Meteorological Laboratory. (3-3) Yr.
 Fee, \$5 a semester. Mr. Bjerknes, Mr. Holmboe
 Meteorological observations; coding and decoding; map plotting; three-dimensional synoptic analysis; practice weather forecasting.
- †101A-101B. Dynamic Meteorology. (3-3) Yr. Mr. Holmboe
 The thermodynamics of the atmosphere including construction of aerological diagrams; elementary dynamics of the atmosphere; the interrelation between the fields of motion, mass, and pressure; dynamic stability, frictional effects, and turbulence; energy transformations, dynamics of the general circulation.
102. Physics of the Higher Atmosphere. (3) I. Mr. Kaplan
 Prerequisite: Astronomy 117A or Physics 113, or equivalent preparation acceptable to the instructor.
 Constitution of the atmosphere at various levels; the ozone layer; optical, electric, and magnetic phenomena; temperature and radiation; cosmic rays.
103. Interaction between the Sea and the Atmosphere. (1) I. Mr. Sverdrup
 The heat balance between the ocean and the atmosphere; the theory of evaporation based on the turbulent transport of water vapor through the surface layer.
- 199A-199B. Special Problems in Meteorology. (1-3; 1-3) Yr.
 Mr. Bjerknes in charge

GRADUATE COURSES

Courses 200A-200B, 200C-200D, 103, and Physics 260 are required of all candidates for the master's degree with major in physics-meteorology.

† In the year 1941-42 these courses may not be given in regular sessions, since the facilities are limited, and the University is currently conducting the training of selected students as a part of the National Defense Program in a special session which began July 1, 1941.

- †200A–200B. **Synoptic Meteorology.** (3–3) Yr. Mr. Bjerknes
 The same as course 100A–100B for 1941–42; thereafter, a second advanced course on the same topics.
- †200C–200D. **Advanced Meteorological Laboratory.** (3–3) Yr. Mr. Bjerknes, Mr. Holmboe
 Analysis of selected weather situations in the past.
260. **Seminar in Meteorology.** (2) II. Mr. Holmboe in charge
 Discussion of current meteorological literature and reports on research.
- 290A–290B. **Research in Meteorology.** (1–6; 1–6) Yr. Mr. Bjerknes in charge

HISTORY OF SCIENCE

UPPER DIVISION COURSE

107. **History of Science and Technology in America.** (3) II.
 Mr. Edwards and staff members of science departments
 Prerequisite: nine units of college science.

† In the year 1941–42 these courses may not be given in regular sessions, since the facilities are limited, and the University is currently conducting the training of selected students as a part of the National Defense Program in a special session which began July 1, 1941.

POLITICAL SCIENCE

MALBONE W. GRAHAM, Ph.D., Professor of Political Science.

¹ J. A. C. GRANT, Ph.D., Professor of Political Science (Chairman of the Department).

CHARLES G. HAINES, Ph.D., Professor of Political Science.

FRANK M. STEWART, Ph.D., Professor of Political Science and Director of the Bureau of Governmental Research.

² CHARLES H. TITUS, Ph.D., Professor of Political Science.

H. ARTHUR STEINER, Ph.D., Associate Professor of Political Science.

WINSTON W. CROUCH, Ph.D., Assistant Professor of Political Science.

RUSSELL H. FITZGIBBON, Ph.D., Assistant Professor of Political Science.

DEAN E. MCHENRY, Ph.D., Assistant Professor of Political Science.

JOHN H. HALLOWELL, Ph.D., Instructor in Political Science.

EARL T. HANSON, M.A., Lecturer in Political Science.

Letters and Science List.—All undergraduate courses in political science are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

Preparation for the Major.—Course 3A-3B, or its equivalent, and one of the following: Political Science 10, 31, 32, 34. Recommended: Economics 1A-1B, Geography 1A-1B, History 4A-4B, 5A-5B, 7A-7B, 8A-8B.

Students intending to select political science as a major subject are advised to take one course in political science throughout the year in each of the freshman and sophomore years.

The Major.—Twenty-four units in upper division courses, not more than four of which may be taken in courses approved by the department in anthropology, business administration, economics, geography, history, philosophy, psychology, or sociology. The work must be divided among the different fields of political science in accordance with the requirements of the department. A copy of the regulations may be obtained from the departmental adviser. The student must maintain an average grade of C or higher in upper division courses in political science.

Related Curricula.—For the Curriculum in Public Service and the Curriculum in International Relations, students are referred to pages 71, 72 of this Catalogue.

LOWER DIVISION COURSES

3A-3B. American Government. (3-3) Beginning either semester.

Mr. Fitzgibbon, Mr. McHenry, Mr. Crouch, Mr. Hallowell, Mr. Hanson

A study of principles and problems in relation to the organization and functions of the American system of government.

Students who have credit for American Institutions 101 will receive only one unit for Political Science 3A.

10. The Anglo-American Legal System. (3) I.

Mr. Grant

Prerequisite: sophomore standing.

The development of the English and Roman legal systems; elementary principles of the common law, as modified by statutes and judicial decisions.

¹ In residence first semester only, 1941-42; ² in residence second semester only, 1941-42.

- 31. Parliamentary Governments. (3) I, II.** Mr. Fitzgibbon, Mr. McHenry
Prerequisite: sophomore standing and course 3A-3B.

A comparative study of constitutional principles, governmental institutions, and political problems, primarily with respect to England.

- 32. Government of European Dictatorships. (3) I, II.**

Mr. Fitzgibbon, Mr. Hallowell

Prerequisite: sophomore standing and course 3A-3B.

An introductory study of the governments of Italy, Germany, and the Soviet Union, with emphasis upon dictatorial technique and ideology, the transformation of governmental institutions, and contemporary problems.

- 34. American State and Local Government. (3) I.**

Mr. Crouch

Prerequisite: sophomore standing and course 3A-3B.

Development of state constitutions. The legislative, executive, and judicial departments in state government; popular methods of control; and relation between the state and local rural government, with special reference to California.

UPPER DIVISION COURSES

Prerequisite for all courses: course 3A-3B, or its equivalent.

- 110. History of Political Ideas. (3) I.**

Mr. Hallowell

An exposition and critical analysis of the ideas of the major political philosophers and schools from Plato to Burke, with emphasis on the setting, the logical structure of their systems, and the significance of these ideas in terms of the contemporary scene.

- 112. Modern Political Thought. (3) II.**

Mr. Hallowell

An exposition and critical analysis of the ideas of the major schools of thought from Kant to the present day.

- 113. American Political Theory. (3) I.**

Mr. Hallowell

A survey of the development of American ideas concerning political authority from Cotton and Williams to Hoover and Roosevelt.

- 117. Jurisprudence. (3) II.**

Mr. Haines

Development of law and legal systems; comparison of methods and procedure in making and enforcing law in Roman and common law systems; consideration of fundamental legal concepts; contributions and influence of modern schools of legal philosophy in relation to law and government.

- 118. Nature of the State. (3) II.**

Mr. Hallowell

Prerequisite: course 110 or 112.

An attempt to develop by critical dialectic a coherent theory of the state. Concepts such as sovereignty, law, liberty, rights, equality will be especially emphasized.

- 120. Colonies in World Politics. (2) II.**

Mr. Fitzgibbon

A brief survey of the more important historical imperialistic systems, followed by a study of colonial governments and the problems of imperialism in the world today.

- 125. Foreign Relations of the United States. (3) I.**

Mr. Graham

A survey of the factors and forces entering into the formation and carrying out of American foreign policy, with special emphasis on contemporary problems.

126. Contemporary Latin-American International Relations. (3) II.

Mr. Fitzgibbon

A study of international relations of the Hispanic-American countries in recent decades, (a) among themselves, (b) with the United States, (c) with Europe and Asia; current developments in such matters as boundary disputes, arbitration and conciliation, Pan-American conferences; Hispanic-American participation in the League of Nations.

127. International Relations. (3) I, II.

Mr. Graham, Mr. Steiner

A general survey of the institutions and agencies of international government with major stress on outstanding issues in the diplomacy of the post-war period.

133A-133B. International Law. (3-3) Yr.

Mr. Steiner

A critical analysis of the general principles of the law of nations as demonstrated in the decisions of international and municipal tribunals and in the practices of nations.

136. Problems of the Pacific Area. (3) II.

Mr. Steiner

A contemporary survey of the internal problems of China and Japan and of the factors underlying Sino-Japanese conflict; also, a brief summary of the problems of other powers having interests in the Pacific.

***138. International Relations of the Far East. (3) II.**

Mr. Steiner

A survey of the relations of China and Japan with the western world and with each other, with an analysis of their conflicting interests.

141. Political Parties and Practical Politics. (3) I, II.

Mr. Titus, Mr. McHenry

An analysis of the organization, functions, and activities of political parties; a study of pressure groups and defensive mechanisms to offset political programs; and an introduction to the technique of playing practical politics.

***142. Elections. (2) I.**

Mr. Titus

An analysis of the history, rules, procedure, techniques, and politics of the American system of elections.

143. Legislatures and Legislation. (2) II.

Mr. Grant, Mr. McHenry

The functions of legislatures, the organization and procedure of typical legislative bodies, and the problems and principles of law making.

146. Public Opinion and Propaganda. (2) II.

Mr. Titus, Mr. McHenry

Prerequisite: one upper division course in political science.

A study of the nature and the means of formation of public opinion. Public opinion as a factor in popular government and as a control device in the modern state with special reference to current conditions in American democracy.

151. The Governments of Latin America. (3) I.

Mr. Fitzgibbon

The governments of representative states: a study of constitutional development, political practices, and the elements of strength and weakness in contemporary governmental organization.

* Not to be given, 1941-42.

- 153. The Governments of the British Empire. (2) I.** Mr. McHenry
The constitutional and political relations of the imperial and Dominion governments; the governments of India, the crown colonies, the protectorates and the mandated territories.
- 154. The Governments of Central Europe. (3) I.** Mr. Graham
An intensive study of the breakdown of the Austro-Hungarian Empire and the constitutional reorganization of the Danubian Succession States, with special attention to contemporary and political issues, parties, elections, and foreign relations.
- 155. The Governments of Eastern Europe. (3) II.** Mr. Graham
An intensive study of the breakdown of the Russian Empire and the constitutional reorganization of the Soviet Union and the Baltic States, with special attention to contemporary political issues, parties, elections, and foreign relations.
- 156. Administrative Law. (3) I.** Mr. Haines
The rights, duties, and liabilities of public officers; relief against administrative action; extraordinary legal remedies; jurisdiction, conclusiveness, and judicial control; legal principles and tendencies in the development of public administration.
- 157A-157B. Constitutional Law. (3-3) Yr.** Mr. Haines, Mr. Grant
General principles of constitutional law, federal and state; relations and powers of the federal government and the states; limitations on the federal government and the protection accorded to individual rights under the American constitutional system.
- 158. Government and Business. (3) I.** Mr. Grant
Governmental activities in the preservation and regulation of competition, with special emphasis upon problems of administration and intergovernmental cooperation. Regulation of trades and professions.
- 162. Municipal Government. (3) I.** Mr. Stewart, Mr. Crouch
A comparative study of the modern municipality in the United States and the principal countries of Europe; history and growth of cities; relation of city to the state; legal aspects of city government; parties and electoral problems; types of municipal organization, mayor and council, commission, and city manager; problems of metropolitan areas.
- 163. Municipal Administration. (3) II.** Mr. Crouch, Mr. Stewart
Development of modern concepts and methods of administration in cities; management and control of administrative organization, city planning, financial administration, protection of life and property, health, housing, social welfare, municipal utility administration.
- 181. Principles of Public Administration. (3) I, II.** Mr. Stewart, Mr. Crouch
Development of public administration and its relation to other branches of government; the process of centralization; the process of integration; reorganization of administration; budgets; purchasing; problems of personnel; and types of control of the administration.
- *182. Lectures in Public Administration. (1) II.** Mr. Stewart, Mr. Crouch
A special series of lectures offered by members of the department and public officials on various contemporary problems of public administration, with special reference to the metropolitan community.
May be taken twice for credit.

* Not to be given, 1941-42.

183. Problems in Public Administration. (3) II. Mr. Stewart, Mr. Crouch

In 1941-42 this course will emphasize problems and techniques of governmental planning, public welfare, and finance administration. Attention will be given to the case method of study.

185. Public Personnel Administration. (3) I, II.

Mr. Stewart

Evolution of public employment policies; a study of the principles and practices of public service personnel, including recruitment, promotion, morale and discipline, retirement, classification, compensation, unions of employees, organization of the personnel agency, and training for public employment.

199A-199B. Special Problems in Political Science. (2-2) Yr.

Prerequisite: credit for six units of upper division courses in political science, and the special requirements necessary for the field selected for special study. Permission to register for this course is required.

Section 1. Techniques of Legal Research.

Mr. Grant

Section 2. Problems in International Relations.

Mr. Steiner

Section 3. Readings in Political Theory.

Mr. Hollowell

Section 4. Methods of Administrative Management.

Mr. Crouch

Section 6. Problems in Politics and Legislation.

Mr. McHenry

Section 7. Problems in Latin-American Political Institutions.

Mr. Fitzgibbon

GRADUATE COURSES

250A-250B. Seminar in Latin-American Relations. (2-2) Yr.

Mr. Fitzgibbon

252A-252B. Seminar in Public Law. (2-2) Yr.

Mr. Haines

253A-253B. Seminar in International Relations. (2-2) Yr.

Mr. Graham

254A-254B. Seminar in Public Administration. (2-2) Yr.

Mr. Stewart

255A-*255B. Seminar in Comparative Constitutional Law. (2-2) Yr.

Mr. Grant

256A-256B. Seminar in Comparative Government. (2-2) Yr.

Mr. Steiner

***257A-257B. Seminar in Political Theory. (2-2) Yr.**

***259A-259B. Seminar in Political and Electoral Problems. (2-2) Yr.**

Mr. Titus, Mr. McHenry

***262A-262B. Seminar in Municipal Government. (2-2) Yr.**

Mr. Stewart

275A-275B. Special Study and Research. (2-6; 2-6) Yr.

The Staff

AMERICAN INSTITUTIONS

101. American Institutions. (2) I, II.

Mr. Crouch, Mr. McHenry, Mr. Hanson

The fundamental nature of the American constitutional system and of the ideals upon which it is based. This course satisfies the "Requirement of American Institutions." (See page 39.)

This course may not be applied toward the political science major, and is not open to students who have credit for Political Science 3A.

* Not to be given, 1941-42.

BUREAU OF GOVERNMENTAL RESEARCH

The Bureau of Governmental Research was established in 1937 chiefly to perform the three functions of: (1) maintaining a collection of current pamphlets, periodicals, and documents relating to public administration and local governments; (2) providing facilities for upper division and graduate students and members of the faculty to pursue study and research in public administration, local government, and related fields; and (3) conducting studies of governmental functions of particular interest to southern California and coöperating with public officials in solving their administrative problems.

Further information may be obtained by consulting the Director, Mr. Frank M. Stewart, Room 42, Library.

PSYCHOLOGY

KNIGHT DUNLAP, Ph.D., Professor of Psychology (Chairman of the Department).

FRANKLIN S. FEARING, Ph.D., Professor of Psychology.

KATE GORDON, Ph.D., Professor of Psychology.

ROY M. DORCUS, Ph.D., Associate Professor of Psychology.

² GRACE M. FERNALD, Ph.D., Associate Professor of Psychology.

ELLEN B. SULLIVAN, Ph.D., Associate Professor of Psychology.

FRANK C. DAVIS, Ph.D., Assistant Professor of Psychology.

S. CAROLYN FISHER, Ph.D., Assistant Professor of Psychology.

JOSEPH A. GENGARELLI, Ph.D., Assistant Professor of Psychology.

HOWARD C. GILHOUSEN, Ph.D., Assistant Professor of Psychology.

PERINA PIZIALI, M.A., Associate in Clinical Psychology and Associate in Italian.

HARRY W. CASE, Ph.D., Research Associate in Psychology.

EVELYN GENTRY, Ph.D., Research Associate in Psychology.

CHRISTIAN PAUL HEINLEIN, Ph.D., Research Associate in Psychology.

Letters and Science List.—All undergraduate courses in psychology are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

Preparation for the Major.—Required: courses 21 and 22; and a coherent group of courses totaling sixteen or more units, chosen with regard to the student's proposed direction of major work in psychology and the ultimate field of application. The list of approvable groups may be obtained from the adviser or from the chairman of the department.

The Major.—Course 106A or 107A, and fifteen additional units in upper division psychology; the remaining six units may be in upper division courses in psychology, or, subject to the approval of the department, in related courses in other departments.

Requirements for the M.A. degree.—The department follows Plan II. (see page 107). The list of topics and alternatives for the Comprehensive Examination may be obtained at the department office.

Requirements for the Ph.D. degree.—Permission to proceed to the written part of the qualifying examinations will be based on: (a) fulfillment of the general university requirements; (b) completion of specified upper division courses in addition to the undergraduate major; (c) departmental approval of the applicant's program, and of his probable qualifications for the making of a competent psychologist; and (d) consideration of the probability of the applicant's securing employment in his chosen field. The department will endorse petitions for candidacy, and request appointment of doctoral committees, only for applicants who have passed with credit the written examinations. Detailed statements of the requirements may be obtained from the chairman of the department.

Laboratory fees.—Courses 106A–106B, 107A–107B, 150B, \$3 a semester.

² In residence second semester only, 1941–42.

LOWER DIVISION COURSES

- 21. Introductory Psychology.** (3) I, II. Mr. Gilhousen in charge
Consideration of facts and principles pertaining to the topics of perception, imagination, thought, feeling and emotion, leading to the problems of experimental psychology, and the topics of intelligence and personality.
- 22. Elementary Physiological Psychology.** (3) I, II. Mr. Fearing in charge
Prerequisite: course 21 or course 1A taken in previous years.
Study of the integrative relations of psychological processes to nervous, muscular and glandular features of the response mechanism; including the structure and functions of the sense organs.
- 23. Personal Applications of Psychology.** (3) I, II. Mr. Dunlap
Prerequisite: course 21 or course 1A taken in previous years.
Orientation in the practical use of psychological principles in problems and circumstances encountered in college and later life.

UPPER DIVISION COURSES

Courses 21 and 22 are normally prerequisite to all upper division courses. Exceptions to the requirement are made only for courses for which the exceptions are specifically stated.

- 101. Principles of Psychology.** (3) I, II. Miss Gordon
Open to upper division students who do not have credit for courses 21 and 22. May be offered in substitution for courses 21 and 22 as the prerequisite to further upper division courses.
A critical discussion of the basic topics in psychology.
Elementary details, including essential information concerning nervous, muscular and glandular mechanisms will be covered by examinations based on readings.
- 106A-106B. Experimental Psychology.** (3-3) Yr. Mr. Dorcus
Lectures and demonstration, two hours; laboratory, two hours; assigned readings. Fee, \$3 a semester.
Methods, techniques, and typical results in experimental research in psychology.
- 107A. Mental Measurements.** (3) I. Miss Sullivan
Prerequisite: course 23 may be accepted in place of course 22. Fee, \$3.
A study of the construction, techniques of application, and interpretation of tests and scales. Practice in statistical procedures applicable to data derived from tests.
- 107B. Mental Measurements.** (3) II. Miss Sullivan
Prerequisite: course 107A. Fee, \$3.
Continuation of the study of principles of measurement, with practice in the construction, administration, and scoring of standardized tests and scales, and their diagnostic interpretation.
- 108. Physiological Psychology.** (3) I. Mr. Fearing
Integrative activities, consciousness, intelligent behavior, receptor and effector processes in relation to neuromuscular structure and function. Facts, problems and methods.
If not to be counted towards the major in psychology, this course may be substituted for course 22 as prerequisite to further upper division courses.

- 110. Educational Psychology.** (3) I, II. Mr. Gengerelli
Adolescence, maturation, habit formation, formal and informal training.
- 112. Child Psychology.** (3) I, II. Mr. Dunlap, Miss Fernald
The psychology of the infant and child, with special reference to mental development.
- *120. History of Psychology, Ancient Period.** (3) I. Mr. Dunlap
Psychological concepts from Homer to the Alexandrian period, outlined in relation to their cultural settings and their influence on modern psychology.
- 124. History of Psychology, Early Modern Period.** (2) II. Mr. Fearing
The development of psychological theories from Descartes to Helmholtz.
- 125. History of Psychology, Second Modern Period.** (2) I. Mr. Gengerelli
Psychological theories and research from Wundt to the end of the nineteenth century.
- 126. Contemporary Psychology.** (2) I. Miss Fisher
The variant tendencies in current psychology, including critical examination of the more important so-called "schools" of psychology.
- 127. English Psychology from Hobbes to Bain.** (2) II. Miss Gordon
- 134. Sensation and Perception.** (2) I. Miss Fisher
Intensive study of sense perception, with reference to the structure and functions of sense mechanisms, and experimental findings.
- 135. Imagination and Thought.** (2) II. Miss Gordon
Imagination, memory, anticipatory and constructive thinking.
- 136. Motor Patterns and Motivation.** (2) II. Mr. Gilhausen
Theories and experimentally determined facts concerning drives, needs, preferences, and desires.
- 137A-137B. Human Learning.** (2-2) Yr. Mr. Davis
A study of experimental methods and results, with consideration of leading theories.
- 138. Feeling and Emotion.** (3) II. Mr. Gengerelli
The nature and basis of the affective factor in life, with application to problems of personal and social adjustment and development.
- 145A-145B. Social Psychology, General Course.** (2-2) Yr. Miss Fisher
- 147. The Psychological Method in the Social Sciences.** (3) II. Mr. Fearing
Psychological factors in major social problems, including social control, propaganda, group conflict, cultural determination, etc.
If this course is not to be counted towards the major in psychology, course 23 may be accepted as a substitute for the prerequisite of course 22.
- 150A. Animal Psychology.** (3) I. Mr. Gilhausen
Experimental methods and results in the study of the behavior of the lower animals.
- 150B. Experiments in Animal Psychology.** (3) II. Mr. Gilhausen
Prerequisite: course 150A. Fee, \$3.
Lecture, one hour; laboratory, six hours.

* Not to be given, 1941-42; to be given in 1942-43.

- 166A. Clinical Psychology of Infancy and Childhood.** (2) I, II.
Lectures and demonstrations. Miss Sullivan, Miss Fernald
A study of the problems of the child, including discussion of physical and mental abnormalities and deficiencies.
- 166B. Clinical Psychology of Infancy and Childhood.** (2) I, II.
Miss Sullivan, Miss Fernald
Lecture, one hour; clinical work, three hours.
Prerequisite: courses 107A and 166A, or equivalent preparation approved by the instructor.
Special emphasis is placed on corrective and preventive methods.
- 168. Abnormal Psychology.** (3) II. Mr. Dorcus
Prerequisite: recommended: course 108, or Zoölogy 35 or 106. Students may be required, early in the semester, to demonstrate an acquaintance with the elementary facts of structure and function of the nervous system.
Disorders of sensation, perception, feeling, and thought; their nature, causation, effects on life, and amelioration.
- *175. Psychology of Religion.** (3) II. Mr. Dunlap
The place of religion in personal and social life and its historical development in Western cultures. Specific beliefs are considered only in relation to their psychological conditions and effects.
- 177. Psychology and Art.** (3) I. Miss Gordon
Problems of the appreciation of the materials and ideas of the fine arts, with special reference to the psychological processes of imagination, feeling, and emotion.
- 183. Advanced Psychometric Methods.** (3) I. Mr. Gengerelli
Prerequisite: course 107B and Mathematics 3B or 7.
The application of higher statistical methods to psychological data.
- 199. Special Problems in Psychology.** (3) I, II. Miss Gordon
Prerequisite: courses 106A, 107A, and six other units in upper division psychology. Specific permission to enroll is necessary.

GRADUATE COURSES

- *211A-211B. Comparative Psychology.** (2-2) Yr. Mr. Gilhousen
A comparative study of experimental results on man and the lower animals.
- *215A-215B. Commercial and Industrial Psychology.** (2-2) Yr. Mr. Dorcus
- 216. Critical Problems in Psychology.** (2) I, II. Mr. Dunlap
The topic for the first semester will be in the field of feeling and emotion; for the second semester, fundamental postulates of psychology.
- 217. Clinical Psychology.** (2) II. Miss Fernald
The prevention of psychological disorders of childhood and adolescence, and their remedy.
- *252A-252B. Seminar in Mental Measurements.** (3-3) Yr. Miss Sullivan

* Not to be given, 1941-42; to be given in 1942-48.

- 253A-253B. Seminar in Physiological Psychology. (3-3) Yr. Mr. Fearing
*255A-255B. Seminar in Social Psychology. (3-3) Yr. Mr. Dunlap
*256A-256B. Seminar in Aesthetics. (3-3) Yr. Miss Gordon
258A-258B. Seminar in Abnormal Psychology. (3-3) Yr. Mr. Dorcus
278A-278B. Research in Psychology. (3-6; 3-6) Yr.
Mr. Gilhousen in charge

* Not to be given, 1941-42; to be given in 1942-43.

SPANISH

CÉSAR BARJA, Doctor en Derecho, Professor of Spanish.

LAURENCE DEANE BAILIFF, Ph.D., Associate Professor of Spanish (Chairman of the Department).

¹ MANUEL PEDRO GONZÁLEZ, Ph.D., Associate Professor of Spanish.

ERNEST H. TEMPLIN, Ph.D., Associate Professor of Spanish.

MARION ALBERT ZEITLIN, Ph.D., Associate Professor of Spanish.

HERMENEGILDO CORBATÓ, Ph.D., Assistant Professor of Spanish.

JOHN A. CROW, Ph.D., Assistant Professor of Spanish.

ANNA KRAUSE, Ph.D., Assistant Professor of Spanish.

MARIA L. DE LOWTHER, M.A., Associate in Spanish.

FRANCISCO MONTAU, A.B., Associate in Spanish.

SYLVIA N. RYAN, M.A., Associate in Spanish.

Letters and Science List.—All undergraduate courses in Spanish except 10 are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

Preparation for the Major.—(1) Courses 1, 2, 3A, 3B, and 20 or 25A–25B or the equivalent, to be tested by examination. (2) Students who wish to make Spanish their major subject must have maintained at least an average grade of C in the college courses in Spanish taken prior to admission to the upper division. (3) A minimum of two years of high school Latin, French, German, or Italian, or Latin A and B, or English 36A–36B, or History 8A–8B. This requirement must be completed before entering upon the senior year. (4) Only students who pronounce Spanish correctly and read it fluently will be admitted to upper division courses. Students transferring from other institutions may be tested by oral examinations. (5) English 1A–1B.

NOTE.—Students who have not completed course 20 or 25A–25B with grade of B or A in the lower division must take 101A–101B.

The Major.—Required: twenty-four units of upper division courses, including 102A–102B and 116A–116B. The remaining units may include not more than four units of upper division work in French, Italian, or Latin literature, or may be completed from courses 101, 104, 108, 109, 110, 114, 115, 124, 134, and Portuguese 101B. Students who desire to satisfy the major requirement specializing in the Spanish-American field may do so by completing courses 102A–102B, 104A–104B, 114, 116A–116B, 124, and 134.

Students who fail to maintain at least an average grade of C in the Spanish courses taken in the upper division will, upon approval of the Dean of the College of Letters and Science, be excluded from the major in Spanish.

The department recommends as a supplementary choice among the free electives: (1) history of the country or countries most intimately connected with the major; (2) additional study in Latin and English literature; (3) French, German, Greek, and Italian language and literature; (4) the history of philosophy.

Two years of high school Latin, or the equivalent, are prerequisite to candidacy for the master's degree in Spanish.

¹ In residence first semester only, 1941–42.

LOWER DIVISION COURSES

The prerequisites for the various lower division courses are listed under these courses. Students whose high school record seems to warrant it may by examination establish their right to take a more advanced course upon recommendation of the instructor.

1. Elementary Spanish. (5) I, II.

Miss Ryan in charge

This course corresponds to the first two years of high school Spanish.

1A. Elementary Spanish. (3) I, II.

This course corresponds to the first year of high school Spanish. Not open to majors in Spanish.

1B. Elementary Spanish. (3) I, II.

Prerequisite: one year of high school Spanish or Spanish 1A. Not open for credit to students who have had Spanish 1 or S1 in a summer session.

2. Elementary Spanish. (5) I, II.

Miss Ryan in charge

Prerequisite: course 1 or two years of high school Spanish or Spanish S1 in a summer session with satisfactory grade.

3. Intermediate Spanish. (5) I, II.

Miss Ryan

Prerequisite: course 2 or three years of high school Spanish.

3A. Intermediate Spanish. (3) I, II.

Miss Ryan in charge

Prerequisite: course 2 or three years of high school Spanish.

3B. Intermediate Spanish. (3) I, II.

Miss Ryan in charge

Prerequisite: course 3A or four years of high school Spanish.

8A-8B. Spanish Conversation. (1-1). Beginning each semester.

The class meets two hours weekly. Open to students who have completed course 2 or its equivalent with grade of A or B.

10. Commercial Spanish. (3) I, II.

Mr. González

Prerequisite: course 3A or four years of high school Spanish. Required of all majors in business administration who elect Spanish to fulfill their language requirement.

20. Grammar Review. (5) I, II.

Miss Ryan

Prerequisite: same as for course 25A-25B.

25A-25B. Advanced Spanish. (3) Yr.

Miss Krause, Mrs. Lowther

For lower division students who have had course 3B or the equivalent. Designed especially for freshmen and sophomores who propose to make Spanish their major subject.

42A-42B. Spanish Civilization. (2-2) Yr.

Mr. Barja

Prerequisite: sophomore standing.

A study of the growth and development of Spanish culture in the various fields. Lectures are in English, reading in Spanish or English.

UPPER DIVISION COURSES

Prerequisite: sixteen units of lower division Spanish or the equivalent.

Major students who enter the upper division without course 25A-25B or 20 must take 101A-101B.

Junior Courses: Courses 101A-101B and 102A-102B.

Junior and Senior Courses: Course 104A-104B, 108A-108B, 109A-109B, 114, 124, and 134.

Restricted Senior Courses: Course 110A-110B, 115A-115B, 116A-116B.

101A-101B. Oral and Written Composition. (3-3) Yr.

Mr. Corbató, Miss Krause, Mr. Templin

102A-102B. Survey of Spanish Literature to 1900. (3-3) Yr. Mr. Zeitlin
Required of major students in Spanish.

104A-104B. Survey of Spanish-American Literature. (3-3) Yr. Mr. Crow
Lectures and reading.

A study of the principal authors of Spanish America.

108A-108B. Spanish Literature from 1850-1898. (2-2) Yr. Mr. Barja
A study of Spanish Realism in the second half of the nineteenth century.

109A-109B. Spanish Literature from 1700-1850. (2-2) Yr. Mr. Corbató
A study of the Neo-classic and Romantic movements.

110A-110B. Contemporary Literature. (2-2) Yr. Mr. Templin
Reading and discussion of contemporary writers.

114. Mexican Literature. (3) I. Mr. González

115A-115B. Readings in Classical Literature. (2-2) Yr. Mr. Zeitlin
Students planning to take graduate work in Spanish are expected to take this course or offer an equivalent.

116A-116B. Advanced Composition. (3-3) Yr. Mr. Bailiff
Required of Spanish majors.

*124. Argentine Literature. (3) II. Mr. González

*134. The Argentine Novel. (3) II. Mr. González

184. Latin American Civilization. (3) I. Miss Krause

A synthetic view of the forces, European and indigenous, geographic and social, which have influenced the people and culture of the Hispanic republics and Brazil. Attention will be given to distinctive forms of expression in the field of the arts and their significance for the creation of national cultures.

GRADUATE COURSES†

*201. Studies in Lyric Poetry. (2) II. Mr. Bailiff

*204. The Gaucho Epic. (2) II. Mr. González

Prerequisite: course 124 or 134.

Lectures, outside reading, reports, and intensive reading in class.

205A-205B. Prose Masterpieces of the Sixteenth and Seventeenth Centuries. (2-2) Yr. Mr. Barja

209A-209B. The Drama of the Golden Age. (2-2) Yr. Mr. Templin

*210A-210B. Contemporary Literature. (2-2) Yr. Mr. Barja

* Not to be given, 1941-42.

† All candidates for the degree of Master of Arts must offer at least two years of high school Latin, or the equivalent.

- 212A-212B. **Historical Grammar and Old Spanish Readings.** (2-2) Yr.
Mr. Zeitlin
- *224. **The Contemporary Mexican Novel.** (2) I. Mr. González
Prerequisite: course 114.
- *230. **Ballads.** (2) II. Mr. Templin
234. **The Modernista Movement in Spanish America.** (2) I. Mr. González
Prerequisite: course 114 or 104B.
- 245A-245B. **Realism and Naturalism in the Nineteenth Century.** (2-2) Yr.
Mr. Barja

PROFESSIONAL COURSE IN METHOD

370. **The Teaching of Spanish.** (3) I, II. Mrs. Lowther
Required of all candidates for the general secondary credential whose major subject is Spanish. To be taken concurrently with Education 370, or in the last half of the senior year.

PORTUGUESE

- 101A-101B. **Grammar, Composition, and Reading of Texts.** (3-3) Yr.
Mr. Zeitlin

RELATED COURSES (See page 175)

Romance Languages and Literatures

- *203A-203B. **Old Provençal: Reading of Texts.** (2-2) Yr. Mr. Templin
- *235. **Romance Versification.** (2) I. Mr. Bailiff
- *252. **Methodology of Romance Philology: Seminar.** (2) II. _____

* Not to be given, 1941-42.

SUBJECT A: ENGLISH COMPOSITION

FREDERICK MASON CAREY, Ph.D., Associate Professor of Latin and Greek,
Chairman, Committee on Subject A.

JAMES K. LOWERS, M.A., Supervisor of Instruction in Subject A.

VIVIAN T. FURMAN, M.A., Associate in Subject A.

¹ MARY-ELIZABETH C. KIBBEY, M.A., Associate in Subject A.

Subject A. No credit. I, II.

The Staff

Fee, \$10.

Three hours weekly for one semester. Although this course yields no credit, it displaces two units on the student's program. Every student who does not pass the examination in Subject A is required to take, in the semester immediately following this failure, the course in Subject A. Sections are limited to thirty students. For further details, see page 38.

Training in correct writing, including drill in sentence and paragraph construction, diction, punctuation, grammar, and spelling. Weekly compositions and written tests on the text.

¹ In residence first semester only, 1941-42.

ZOÖLOGY

BENNET M. ALLEN, Ph.D., Professor of Zoölogy.

ALBERT W. BELLAMY, Ph.D., Professor of Zoölogy (Chairman of the Department).

LOYE HOLMES MILLER, Ph.D., Professor of Biology.

GORDON H. BALL, Ph.D., Associate Professor of Zoölogy.

RAYMOND B. COWLES, Ph.D., Associate Professor of Zoölogy.

WALTER P. COVELL, M.D., Ph.D., Associate Professor of Physiology.

SARAH ROGERS ATSATT, Ph.D., Assistant Professor of Zoölogy.

EDGAR L. LAZIER, Ph.D., Assistant Professor of Zoölogy.

BORIS KRICHESKY, Ph.D., Instructor in Zoölogy.

A. MANDEL SCHECHTMAN, Ph.D., Instructor in Zoölogy.

FRANCIS B. SUMNER, Ph.D., Professor of Biology, Scripps Institution of Oceanography.

MARTIN W. JOHNSON, Ph.D., Assistant Professor of Marine Biology, Scripps Institution of Oceanography.

HERBERT S. JENNINGS, Ph.D., Research Associate in Zoölogy.

Letters and Science List.—All undergraduate courses in this department are included in the Letters and Science List of Courses. For regulations governing this list, see page 68.

Preparation for the Major.—Zoölogy 1A-1B, and one year of college chemistry, preferably Chemistry 1A-1B. French and German are recommended.

The Major.—Eighteen units of upper division work in zoölogy and six units of upper division work chosen from zoölogy or from approved *related* courses in anthropology, bacteriology, botany, chemistry, entomology, home economics, mathematics, paleontology, physics, or psychology. Of the 18 upper division units in zoölogy at least 4 units must be taken in each of the three following groups of courses:†

Group 1: Courses 101, 103, 111, 118, 130, 131.

Group 2: Courses 104, 105, 106, 107, 107C, 111C.

Group 3: Courses 112, 113, 113C, 115, 115C.

Curriculum for Medical Technicians.—For details see the ANNOUNCEMENT OF THE COLLEGE OF LETTERS AND SCIENCE, LOS ANGELES.

Laboratory Fees.—Physiology 1, 2, \$3; Zoölogy, 1A, 1B, \$3; 1C, \$2; 4, \$5; 35, 105, 131, 133, \$3; 106, \$7.50; 107C, \$5; 111C, \$3; 112, \$2; 115C, \$2.50; 199A, 199B, \$3.

ZOÖLOGY

LOWER DIVISION COURSES

1A. General Zoölogy. (5) I.

Mr. Ball, Mr. Krichesky

Lectures, two hours; quiz, one hour; laboratory, six hours; one required field trip. Fee, \$3.

An introduction to the facts and principles of animal biology.

† Effective for all students graduating with a major in zoölogy after August, 1942.

- 1B. General Zoölogy.** (5) II. Mr. Lazier, Mr. Krichesky
Lectures, two hours; quiz, one hour; laboratory, six hours. Fee, \$3.
Prerequisite: course 1A.
An introduction to vertebrate morphology, physiology, and embryology.
- 1C. Elementary Embryology.** (2) II. Mr. Lazier
Fee, \$2.
Not open to students who have taken Zoölogy 1B at this University.
Designed for students who transfer to this University from other institutions without having had the embryological work covered in Zoölogy 1B. This work (or its equivalent in Zoölogy 1B) is required for admission to medical school.
- 4. Microscopical Technique.** (2) I, II. Mr. Schechtman
Laboratory, six hours; assigned readings.
Prerequisite: high school chemistry and course 1A-1B, or the consent of the instructor. Fee, \$5.
The preparation of tissues for microscopical examination.
- *18. Human Biology.** (2) II. Mr. Allen
Prerequisite: an elementary college course in biology, botany, or zoölogy.
A biological consideration of man and his institutions; lectures, discussions, readings and reports.
- 35. General Human Anatomy.** (3) II. Miss Atsatt
Lecture, two hours; laboratory, three hours. Fee, \$3.
Prerequisite: sophomore standing; course 1A or Physiology 1.

UPPER DIVISION COURSES

- 101. Physiological Biology.** (2) I. Mr. Krichesky
Prerequisite: course 1A or Botany 1A, and Chemistry 8 and 9, or the equivalent.
Lectures, readings, and demonstrations of certain physicochemical processes and the principles of living matter.
- 103. Experimental Zoölogy.** (2) I. Mr. Schechtman
Prerequisite: course 1A-1B.
Lectures and reports on articles in scientific journals.
Factors governing cell-differentiation; a survey of the results of experimental embryology, transplantation, regeneration, and tissue culture.
- 104. Vertebrate Paleontology.** (3) I. Mr. Miller
Lecture, one hour; laboratory, six hours.
Prerequisite: course 1A-1B.
A study of the structure and the evolution of the mammals of the western hemisphere.
- 105. Mammalian Embryology.** (3) I, II. Mr. Allen
Lecture, one hour; laboratory, six hours.
Prerequisite: course 1A and either 1B or 35. Fee, \$3.
Emphasis on man, rat, and pig.

* Not to be given, 1941-42.

- 106. Comparative Anatomy of the Vertebrates.** (4) I. Mr. Lazier
Lecture, two hours; laboratory, six hours.
Prerequisite: course 1A-1B (including embryology). Fee, \$7.50.
A study of the structural relationships of the vertebrates. Dissection of the elasmobranch, amphibian, and mammal.
- 107. Microanatomy.** (2) II. Mr. Krichesky
Prerequisite: courses 1A, 1B.
The structure and activities of the cell, with emphasis on the mammals.
- 107C. Microanatomy Laboratory.** (2) II. Mr. Krichesky
Prerequisite or concurrent: course 107. Fee, \$5.
- 111. Parasitology.** (2) II. Mr. Ball
Prerequisite: course 1A.
General discussion of the biological aspects of parasitism and of the animal parasites of man and the domestic animals.
- 111C. Parasitology Laboratory.** (2) II. Mr. Ball
Prerequisite or concurrent: course 111. Fee, \$3.
- 112. Advanced Invertebrate Zoölogy.** (4) I. Mr. Johnson
Lectures, two hours; laboratory and field, six hours.
Prerequisite: course 1A. Course 1B is recommended. Fee, \$2.
Morphology, habits, habitats, and life histories of both marine and fresh water invertebrates, with especial reference to local faunas.
- 113. Vertebrate Zoölogy.** (2) II. Mr. Miller
Prerequisite: course 1A-1B.
Emphasis upon the habits, distribution, and ecology of the avifauna of California.
- 113C. Vertebrate Zoölogy Laboratory.** (2) II. Mr. Miller
Prerequisite or concurrent: course 113.
- 115. Vertebrate Zoölogy.** (2) I. Mr. Cowles
Prerequisite: course 1A-1B.
Ecology, distribution, and habits of the cold-blooded vertebrates.
- 115C. Vertebrate Zoölogy Laboratory.** (2) II. Mr. Cowles
Prerequisite: course 115. Fee, \$2.50.
Ecology and taxonomy of the cold-blooded vertebrates.
- 117. Zoölogical Theories and Concepts.** (2) II. Mr. Bellamy
Prerequisite: six units of upper division zoölogy.
Readings, discussions, and lectures on the history and development of basic concepts and theories concerning organisms.
- 118. Endocrinology.** (2) I. Mr. Allen
Prerequisite: course 1A.
Lectures and reports on articles in scientific journals.
- 130. Genetics.** (2) I. Mr. Bellamy
Lectures and discussions, two hours.
Prerequisite: course 1B or Botany 1B or the equivalent.
The student is given an opportunity to become familiar with the principles of heredity and research methods in genetics.

- 131. Genetics Laboratory. (2) I.** Mr. Bellamy
 Laboratory, six hours.
 Prerequisite or concurrent: course 130. Fee, \$3.
- 132. Advanced Genetics. (2) II.** Mr. Bellamy
 Lectures, two hours; seminar, one hour.
 Prerequisite: course 131.
 A continuation of course 130 with special reference to experimental evolution.
- 133. Advanced Genetics Laboratory. (2) II.** Mr. Bellamy
 Laboratory, six hours.
 Prerequisite or concurrent: course 132. Fee, \$3.
- 199A-199B. Problems in Zoölogy. (2-2) Yr.** Mr. Allen and the Staff
 Prerequisite: course 1A-1B, with such special preparation as the problem may demand. Fee, \$3 a semester.

GRADUATE COURSES

- 250. Survey of Animal Biology; Seminar. (3) II.** The Staff
- 251A-251B. Seminars in Ecology. (3-2) Yr.**
 Mr. Miller, Mr. Cowles, Mr. Johnson
 Section 1. Warm Blooded Vertebrates. Mr. Miller
 Section 2. Cold Blooded Vertebrates. Mr. Cowles
 Section 3. Invertebrates. Mr. Johnson
- 252A-252B. Seminars in Endocrinology. (2-2) Yr.**
 Mr. Allen, Mr. Krichesky
 Section 1. Growth and Development. Mr. Allen
 Section 2. Physiology of Reproduction. Mr. Krichesky
- 253A-253B. Seminars in Genetics and Evolution. (2-1) Yr.**
 Mr. Bellamy, Mr. Sumner
- 254A-254B. Seminars in Experimental Zoölogy. (2-2) Yr.**
 Mr. Schechtman, ———
- 255A-255B. Seminars in Protozoölogy and Parasitology. (2-2) Yr.**
 Mr. Ball
- 290A-290B. Research in Zoölogy. (2-6; 2-6) Yr.** The Staff

BIOLOGY

LOWER DIVISION COURSES

- 1. Fundamentals of Biology. (3) I, II.** Mr. Cowles, Miss Scott
 Students who have taken or are taking Botany 1A or Zoölogy 1A will not receive credit for Biology 1.
 Important principles of biology illustrated by studies of structure and activities of living organisms, both plants and animals.
- 12. General Biology. (3) II.** Mr. Cowles, Mr. Miller
 Lectures, three hours; demonstration, one hour; one required field trip in the semester.
 Prerequisite: course 1, Botany 1A, or Zoölogy 1A.
 A course in systematic and ecologic biology with emphasis on local species.

PALEONTOLOGY†**LOWER DIVISION COURSE****1. General Paleontology. (2) I.**

Mr. Miller

Lectures, quizzes, and two required Saturdays in the field.

A discussion of the general principles of paleontology, the influences that surrounded the ancient life of the earth, and some of the ways in which animals respond to such influences.

PHYSIOLOGY‡**LOWER DIVISION COURSES****1. General Human Physiology. (3) I.**

Miss Atsatt

Lectures, two hours; laboratory, three hours.

Prerequisite: Chemistry 2A-2B or Chemistry 1A; and Zoölogy 1A or Biology 1. Fee, \$3.

The processes taking place in the human body in normal life.

2. Human Physiology. (2) I.

Miss Atsatt

Lecture, one hour; laboratory, three hours.

Prerequisite: course 1 or Zoölogy 1B; or may be taken concurrently with course 1. Fee, \$3.

RELATED COURSE IN ANOTHER DEPARTMENT**Art 24A-24B. Introduction to Scientific Illustrating. (3-3) Yr.**

Mr. A. M. Johnson

† Courses in Invertebrate Paleontology are offered by the Department of Geology (see page 189).

‡ The University of California at Los Angeles does not offer a major in physiology. Students wishing to satisfy the requirements for a major in physiology are referred to the GENERAL CATALOGUE of the Departments at Berkeley.

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