

**UNIVERSITY OF CALIFORNIA
BULLETIN**

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**GENERAL
CATALOGUE**

• 1935-36 •

**UNIVERSITY OF CALIFORNIA
AT LOS ANGELES**

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Administrative Bulletins of the University of California

1935-36

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The General Catalogue of the University of California at Los Angeles: containing general information about the University, requirements for admission, for the bachelor's degree in the College of Letters and Science, in the Teachers College, and in the Branch of the College of Agriculture in Southern California, for the master's degree, and for teaching credentials; students' fees and expenses; and announcements of courses of instruction in the University of California at Los Angeles. Price, 10 cents.

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The Announcement of Graduate Study at the University of California at Los Angeles.

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The Announcement of the Summer Session of the University of California at Los Angeles.

General Bulletins, and Bulletins Referring Primarily to Divisions of the University at Berkeley and Davis

The General Catalogue of the University of California (primarily for those interested in the Undergraduate Division at Berkeley): General information about the University, its organization, the requirements for admission to undergraduate status, and for the bachelor's degree in the colleges of Letters and Science, Agriculture, Chemistry, Commerce, Mining and Engineering; requirements for certificates in several curricula; students' fees and expenses, and announcements of courses of instruction in the departments at Berkeley. Price, 10 cents.

University of California Bulletin

Third Series, Volume XXIX, Number 7 • Berkeley, California, October 1, 1935

GENERAL CATALOGUE

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

FOR THE

ACADEMIC YEAR, 1935-36

405 HILGARD AVENUE, LOS ANGELES, CALIFORNIA

UNIVERSITY OF CALIFORNIA BULLETIN

A SERIES IN THE ADMINISTRATIVE BULLETINS OF THE UNIVERSITY OF CALIFORNIA. ENTERED JULY 1, 1911, AT THE POST OFFICE AT BERKELEY, CALIFORNIA, AS SECOND-CLASS MATTER, UNDER THE ACT OF CONGRESS OF JULY 16, 1894. ISSUED MONTHLY FROM NOVEMBER TO APRIL, AND TWICE A MONTH FROM MAY TO OCTOBER.

Letters of inquiry concerning the University of California at Los Angeles should be addressed to the *Registrar, University of California at Los Angeles, Los Angeles.*

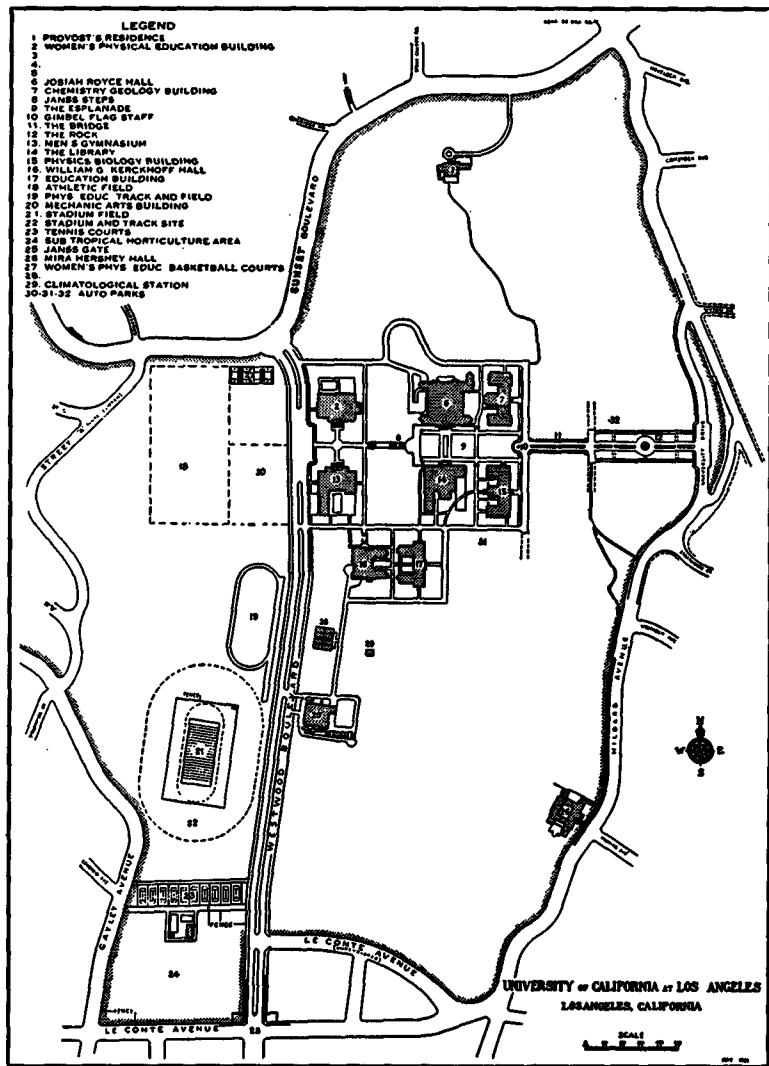
Letters of inquiry concerning the University in general should be addressed to the *Registrar, University of California, Berkeley.*

For the list of bulletins of information concerning the several colleges and departments see pages 2 and 3 of the cover.

In writing for information please mention the college, department, or study in which you are chiefly interested.

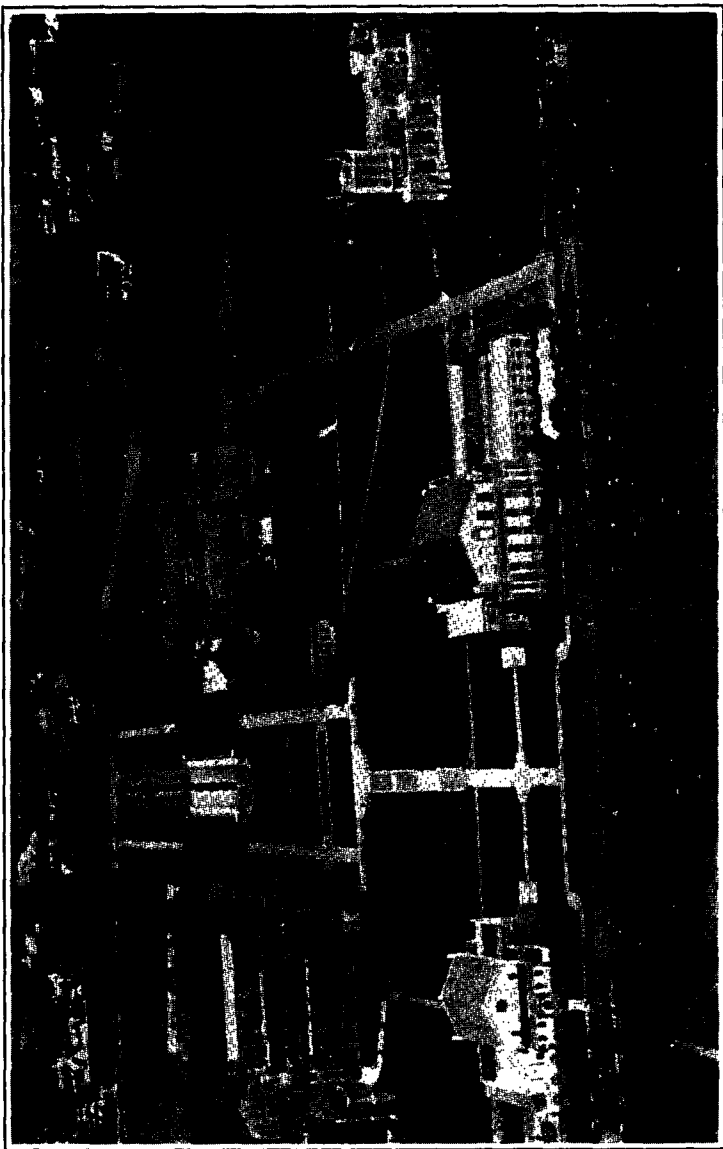
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- 7 CHEMISTRY GEOLOGY BUILDING
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UNIVERSITY OF CALIFORNIA AT LOS ANGELES
LOS ANGELES, CALIFORNIA





THE EAST CENTRAL PORTION OF THE CAMPUS

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CALENDAR*

1935

June 22–Aug. 10, incl.	Summer Session in Los Angeles.
Sept. 3, Tuesday	Applications for admission to undergraduate or graduate study in September, 1935, with complete credentials, should be filed on or before this date to avoid penalty of late application fee.
Sept. 11, Wednesday	9:00 a.m., Examination in Subject A.
Sept. 12, Thursday	Consultation with advisers by new students.
Sept. 13, Friday	Registration of old students and reentrants (graduates and undergraduates): 8:30 a.m.– 9:30 a.m.—F–K. 9:30 a.m.–11:00 a.m.—L–Q. 12:00 m.– 1:30 p.m.—R–Z. 1:30 p.m.– 3:00 p.m.—A–E. 3:00 p.m.– 4:00 p.m.—All initials.
Sept. 14, 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. 16, Monday	Instruction begins.
Sept. 21, Saturday	Special examinations in Subject A.
Sept. 23, Monday	Last day to file registration books or to change study lists without fee.
Sept. 30, Monday	Last day to file application for admission to candidacy for the Master's degree or for the secondary teaching credentials in February, 1936.
Sept. 30, Monday	Instruction in Subject A begins.
Oct. 4, Friday	Last day to add courses to study lists.
Oct. 11, Friday	Last day to drop courses from study lists without penalty of grade F (failure).
Nov. 8, Friday	End of mid-term period.
Nov. 11, Monday,	Armistice Day: academic and administrative holiday in all departments.
Nov. 15, Friday	Last day to file without fee, notice of candidacy for bachelor's degrees in February.
Nov. 28–Dec. 1, incl.	Thanksgiving recess.
Dec. 7, Saturday	Last day to file without fee, applications for supervised teaching.
Dec. 13, Friday	Christmas recess begins.

* 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 half-year at Berkeley will begin August 22, 1935; in the second half-year, January 20, 1936.

1936

- Jan. 6, Monday Instruction begins.
- Jan. 11, Saturday Final examination in Subject A.
- Jan. 25-Feb. 5, incl. Final examinations, first half-year, 1935-36.
- Feb. 4, Tuesday Applications for admission to undergraduate or graduate study in February, 1936, with complete credentials, should be filed on or before this date to avoid penalty of late application fee.
- Feb. 5, Wednesday Last day of first half-year, 1935-36.
- Feb. 12, Wednesday 9:00 a.m., Examination in Subject A.
- Feb. 13, Thursday Consultation with advisers by new students.
- Feb. 14, Friday Registration of old students and reentrants (graduates and undergraduates):
8:00 a.m.- 9:30 a.m.—R-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-Q.
3:00 p.m.- 4:00 p.m.—All initials.
- Feb. 15, Saturday Registration of new students (graduates and undergraduates):
8:00 a.m.- 9:00 a.m.—A-L.
9:00 a.m.-10:00 a.m.—M-Z.
10:00 a.m.- 1:00 p.m.—All initials.
Registration of any student, old or new:
10:00 a.m.- 1:00 p.m.
- Feb. 17, Monday Instruction begins.
- Feb. 18, Tuesday Last day to file (at Berkeley) applications for fellowships and graduate scholarships for 1936-37, tenable at Berkeley.
- Feb. 22, Saturday Washington's Birthday: academic and administrative holiday in all departments.
- Feb. 24, Monday Special examination in Subject A.
- Feb. 24, Monday Last day to file registration books or to change study lists without fee.
- Mar. 2, Monday Last day to file applications for scholarships at Berkeley (tentative).
- Mar. 2, Monday 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, 1936.
- Mar. 2, Monday Instruction in Subject A begins.
- Mar. 6, Friday Last day to add courses to study lists.
- Mar. 13, Friday Last day to drop courses from study lists without penalty of grade F (failure).
- Mar. 23, Monday Charter Day.
- Apr. 1, Wednesday Last day to file applications for scholarships for the academic year, 1936-37.
- Apr. 8, Wednesday End of mid-term period.
- Apr. 9-Apr. 11, incl. Spring recess.

- Apr. 25, Saturday Last day to file without fee, applications for supervised teaching.
- May 1, Friday Last day to file without fee, notice of candidacy for bachelors' degrees in June.
- May 18, Monday Last day for filing in final form with the committee in charge, theses for the Master's degree to be conferred in June, 1936.
- May 23, Saturday Final examination in Subject A.
- May 30, Saturday Memorial Day: academic and administrative holiday in all departments.
- June 4-June 13, incl. Final examinations, second half-year, 1935-36.
- June 17-July 14, incl. Summer Course in Surveying (tentative).
- June 19, Friday Seventeenth Annual Commencement at Los Angeles.
- June 27-Aug. 15, incl. Summer Session at Los Angeles

THE REGENTS OF THE UNIVERSITY

NOTE.—The regular meetings of the Regents are held as follows: on the second Friday in February, August, October, November, and December, in San Francisco; on the day preceding Charter Day in March in Berkeley; on the day preceding Commencement at Berkeley in May in Berkeley; on the second Friday of September, January, and April, and on the day preceding Commencement at Los Angeles in June in Los Angeles. The meetings are held at such places as may from time to time be determined, but ordinarily at the Governor's Office, State Building, San Francisco; and at Kerekhoff Hall in Los Angeles. The July meeting is usually omitted. Ordinarily committees meet at 901 Crocker Building, San Francisco.

REGENTS EX OFFICIO

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<p>GEORGE JUAN HATFIELD, J.D. Lientenant-Governor of California 333 Montgomery st. San Francisco</p>	<p>JOSEPH MOORE CUMMING President of the Mechanics Institute 85 Post st, San Francisco</p>
<p>EDWARD CRAIG Speaker of the Assembly 111 West Imperial Highway Brea</p>	<p>PRESTON HOTOCHKIS, A.B. President of the California Alumni Association Pacific Finance bldg, Los Angeles</p>
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The term of the appointed Regents is sixteen years, and terms expire March 1 of the year indicated in parenthesis. The names are arranged in the order of original accession to the Board.

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<p>CHARLES ADOLPH RAMM, B.S. (1944) 1100 Franklin st, San Francisco</p>	<p>JOHN FRANCIS NEYLAN (1944) Crocker First National Bank bldg, San Francisco</p>
<p>EDWARD AUGUSTUS DICKSON, B.L. (1942) 425 S Windsor blvd, Los Angeles</p>	<p>CHARLES COLLINS TEAGUE, LL.D. (1946) Santa Paula</p>
<p>JAMES MILLS (1942) 828 West Surf av, Balboa</p>	<p>SIDNEY M. EHRMAN, B.L., LL.B. (1948) 700 Nevada Bank bldg, San Francisco</p>
<p>CHESTER HARVEY ROWELL, Ph.B., LL.D. (1936) 149 Tamalpais rd, Berkeley</p>	<p>JOHN GALLWEY, M.D., Ph.D., LL.D. (1948) 1195 Bush st, San Francisco</p>
<p>MORTIMER FLEISHHAACKER (1950) Angio-California National Bank, San Francisco</p>	<p>AMADEO PETER GIANNINI (1950) Bank of America, 1 Powell st, San Francisco</p>

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Sacramento

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Chairman
Crocker First National Bank, San Francisco

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Secretary, Treasurer and Land Agent
219 California Hall, Berkeley

Luther A. Nichols, A.B.
Comptroller
118 California Hall, Berkeley

Jno. U. Calkins, Jr., B.L., J.D.
Attorney
901 Crocker bldg., San Francisco

Deming G. Maolise, B.S.
Assistant Secretary and Assistant Comptroller

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University Farm, Davis

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Assistant Comptroller
108 U. C. Hospital, San Francisco

George D. Mallory, A.B.
Assistant Treasurer
219 California Hall, Berkeley

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FOR THE YEAR 1935-36*

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Educational Relations :

Regents Kersey, Rowell, Ramm, Neylan, and Hotchkis

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Executive Committee :

This committee consists of the chairmen of all standing committees and the President of the California Alumni Association

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Regents Moffitt, McEnerney, Fleishhacker, Crocker, Neylan, Cochran, Ehrman, and Giannini

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Regents Fleishhacker, Dickson, Ramm, Cumming, Neylan, Teague, Ehrman, and Hatfield

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Regents McEnerney, Ehrman, Cochran, Hotchkis, and Hatfield

Letters and Science :

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Regents Cochran, Gallwey, Moffitt, Rowell, Kersey, and Hotchkis

Lick Observatory :

Regents Neylan, Crocker, Cumming, Gallwey, and Fleishhacker

University of California Medical School :

Regents Crocker, Moffitt, Ramm, Haynes, Gallwey, Neylan, Giannini, and Ehrman

University of California at Los Angeles and Scripps Institution of Oceanography :

Regents Dickson, Teague, Cochran, Mrs. Sartori, Haynes, Kersey, Hotchkis, and Craig

Wilmerding School :

Regents Giannini, Cumming, and Moffitt

* The President of the Board of Regents and the President of the University are *ex officio* members of all committees of the Board. In each committee the name of the chairman is first and the name of the vice-chairman is second.

ADMINISTRATIVE OFFICERS
OF THE
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DONALD MACKINNON, M.D., Physician for Men.
M. BURNEY PORTER, Appointment Secretary.

-
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ture in Southern California.
ROBERT W. HODGSON, M.S., Assistant Director of the Branch of the College of
Agriculture in Southern California.

THE UNIVERSITY

The University comprises the following colleges, divisions, and departments:

I. AT BERKELEY

The Colleges of

Letters and Science,

Commerce,

Agriculture (including the Department of Agriculture, the Agricultural Experiment Station, the Agricultural Extension Service, and the Giannini Foundation of Agricultural Economics),

Engineering (including the Surveying Camp at Fairfax),

Mining,

Chemistry.

The Schools of

Architecture,

Education,

Jurisprudence,

Librarianship,

Medicine (first year).

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

The California Museum of Vertebrate Zoölogy.

The Museum of Paleontology.

The Museum of Anthropology, Archaeology, and Art.

The Institute of Child Welfare.

The Institute of Social Sciences.

The Institute of Experimental Biology.

II. AT MOUNT HAMILTON

The Lick Astronomical Department (Lick Observatory).

III. AT SAN FRANCISCO

California School of Fine Arts,
 Hastings College of the Law,
 Medical School (second, third, fourth, and fifth years, including Hospitals),
 The George Williams Hooper Foundation for Medical Research,
 College of Pharmacy,
 College of Dentistry.

IV. AT LOS ANGELES

University of California at Los Angeles:

College of Letters and Science,
 Teachers College,

*The Branch of the College of Agriculture in Southern California, including
 the courses of instruction in Subtropical Horticulture and the Agricultural
 Experiment Station's activities at Los Angeles,
 The Lower Division in Chemistry, Commerce, Engineering, and Mining,
 Graduate Study (in academic fields, and in agriculture),
 The Summer School of Surveying,
 Institute for Social Science Research.

Los Angeles Medical Department. Graduate instruction only.

V. AT DAVIS

The Branch of the College of Agriculture at Davis, and the University Farm,
 including a branch of the Department of Agriculture and the Agricultural
 Experiment Station.

VI. AT RIVERSIDE

*The Branch of the College of Agriculture in Southern California, including
 the Citrus Experiment Station and Graduate School of Tropical Agriculture.

VII. AT LA JOLLA

The Scripps Institution of Oceanography.

VIII. AT POMONA

W. K. Kellogg Institute of Animal Husbandry.

* The Branch of the College of Agriculture in Southern California includes all activities of the College of Agriculture at Riverside and Los Angeles.

ORGANIZATION AND GOVERNMENT

HISTORY OF THE UNIVERSITY

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 Rev. Henry Durant. In 1853, under the auspices of the Presbytery of San Francisco and of the Congregational Association of Oakland, Mr. Durant opened in Oakland the "Contra Costa Academy," but soon changed the name to that of "College School," in order to signify that the undertaking was only preparatory to a projected college. In 1855 such an institution was incorporated under the name of "College of California." In 1860 that college was formally opened, and classes were graduated from 1864 to 1869 inclusive. The instruction was given in buildings in Oakland, but in 1856 a tract of land five miles to the north was obtained, and the college buildings were begun. In 1866 the name of Berkeley was given to the townsite about the 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." A further impulse was given in 1862 by the passage of the Morrill Act for the establishment of an Agricultural, Mining, and Mechanical Arts College.

In 1867 these three forces began working together to one end—the establishment of a University of California. The private enterprise known as 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 the Governor on March 23, 1868, and the new institution opened its doors for instruction in September, 1869.

The first appointee to the Presidency 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-).

ORGANIZATION

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 the United States, and by private gifts, it conducts courses of instruction in literature, science, and the professions. The instruction in all of the colleges of the University is open to all qualified persons, without distinction of sex.

GOVERNMENT

THE GOVERNMENT of the University of California is entrusted 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. To this corporation, by the provision of Article IX, Section 9, of the Constitution, the State has committed the administration of the University "with 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 Librarian, the Librarian of the University of California at Los Angeles, and all professors and instructors giving instruction in any curriculum under the control of the Academic Senate; but 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 in course and has general supervision of the discipline of students.

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

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; and the cornerstone of the first building was laid on December 17 of that year. Instruction began 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 moved into its new quarters in September, 1914; 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 the same 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 and eighty-four acres recently bought and presented to it 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 began in the new buildings September 23, 1929.

By action of the Regents the Branch of the College of Agriculture in Southern California was established in November, 1930, providing resident instruction at the University of California at Los Angeles in the Plant Science curriculum, with a major in Subtropical Horticulture.

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 Certificates of Completion for the general secondary and junior college teaching credentials, was authorized by the Regents, to begin in September, 1933. Accordingly 150 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 agriculture (subtropical horticulture), chemistry, French, Latin, microbiology, and Spanish.

The University of California at Los Angeles is administered by the President through the Vice-President and Provost, who is appointed by the Regents on the recommendation of the President of the University.

SITE OF THE CAMPUS

The campus of the University of California at Los Angeles 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 Sunet 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. From *Culver City*, William Thompson Transportation Co. bus via Motor and Overland Avenues.

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.

ADMISSION TO THE UNIVERSITY

ADMISSION TO UNDERGRADUATE STATUS

THE RULES CONCERNING ADMISSION to undergraduate status are administered by the Board of Admissions. Prospective applicants for admission should communicate with the Board by addressing the Director of Admissions, who will furnish the necessary forms of application.*

1. The graduate of an accredited secondary school who has not attended an institution of collegiate rank may be admitted by certificate if he meets the requirements set forth under Plan I below.

Applicants unable to meet all the subject and scholarship requirements may not be admitted to the regular sessions until these deficiencies are removed by work successfully completed elsewhere as mentioned under *Removal of Admission Deficiencies* on page 28, or by examination as explained on page 30.

2. An applicant who has attended another institution of collegiate rank may be admitted on the basis of a satisfactory record made in the other institutions attended as set forth under Plan II (page 27).

3. Applicants may gain admission by examination as set forth under Plan III (page 28).

4. For admission to special status, see page 32.

I. ADMISSION TO FRESHMAN STANDING BY CERTIFICATE

A graduate of an accredited high school may enter the University in freshman standing provided the conditions outlined below have been satisfied.

A. The 1933 Plan

1. Graduation from an accredited high school; this usually requires the completion of sixteen subject credits.

2. Completion of a high school program that will include:

(a) History	1 unit
(b) English	3 units
(c) Mathematics (elementary algebra and plane geometry)....	2 units
(d) Science: a third- or fourth-year subject with laboratory (chemistry, or physics, or biology, or zoölogy, or botany, or physiology)	1 unit

* A fee of \$3 is charged every applicant for admission to the University payable when the first application is filed. Remittances should be made payable to the Regents of the University of California.

- (e) Foreign language (in one language)..... 2 units
 (f) Advanced mathematics; or chemistry, or physics—if not offered under (d); or additional foreign language in the language offered under (e) (if in another foreign language, two units will be required)..... 1 (or 2) units

3. A "B" average in those subjects listed (a) to (f) taken during the tenth, eleventh, and twelfth years of high school. Any passing mark is accepted for work completed before the tenth year.

B. The 1931 Plan

According to this plan, in effect until September, 1935, inclusive, students may be admitted who have eight units of "A's" or "B's" in the subjects (a) to (f) listed above, and who have completed fifteen subject credits with no grade less than "C."

Subject Requirements

The requirement of one unit in history (a) may be met by any two semesters in history or by a semester of civics and a semester of history. With the consent of the principal of the school courses in social science may also be counted.

For the English requirement (b) courses in public speaking, dramatics, or journalism may be offered with the consent of the principal of the school concerned.

For mathematics (c) a course in second year algebra (algebraic theory) may be offered to make up a deficiency in first year algebra; solid geometry and trigonometry may be offered to make up a deficiency in plane geometry.

The science offered in satisfaction of requirement (d) must be an advanced laboratory course organized for third- or fourth-year students and undertaken after the second year. The requirement cannot be satisfied by one-half unit of each of two sciences.

The requirement of an advanced subject (f) amounts to two units only in case the applicant elects to offer four semesters of a foreign language other than that presented under requirement (e). In this case as stated above under (e) the entire four semesters must be in one language. The requirement of one unit may be met by any two semesters of one of the following subjects: advanced mathematics; chemistry; physics; foreign language, in the same language offered under (e).

The responsibility for determining 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 rests primarily with the high school authorities. However, the University believes that the definitions of the College Entrance Examination Board are an adequate guide to the proper organization of college preparatory courses and recommends that they be followed.

Scholarship Requirements

Until September, 1935, inclusive, an applicant must satisfy the grade requirement of one of the following plans. Thereafter, all applicants must meet the requirements as set forth in the 1933 Plan.

The 1933 Plan.—In this plan the scholarship requirement is based on the record made in the tenth, eleventh, and twelfth years of the high school. In the junior high school or ninth year of the four-year high school any passing mark is acceptable for the work completed.

In the senior high school or in years ten, eleven, and twelve of a four-year high school, the applicant must have attained an average grade of "B" or above in the group of courses offered to complete the subject requirements (a) to (f), inclusive, a semester grade of "A" being used to offset a semester grade of "C" in any of the required courses. No subject in which the applicant has received grade "D" will be counted in reckoning the applicant's average grade for admission or in satisfaction of the specific subject requirements.

The 1931 Plan.—(Not effective after September, 1935.) In this plan the scholarship is based on the record made in the ninth to the twelfth grades inclusive. The applicant's record must show that he has attained "A" or "B" grades in at least eight units (or sixteen half units) of the subjects specified in requirements (a) to (f) inclusive. In the reckoning of grades in accordance with the foregoing requirement, not more than one unit of grade "A" or "B" may be counted in history, three units of such grades in English, etc. In the remaining seven units of subjects prescribed for admission, "A," "B," or "C" grades will be acceptable; but no subject in which the applicant has received the lowest passing grade (D) may be counted in the total of fifteen units required for admission.

Grade Regulations.—The requirement as to grades, for both plans, is based on a system of four passing marks: A (superior), B (better than average), C (average), and D (barely passing). Principals are requested to interpret all grades in accordance with this system.

In the reckoning of grades attained by the student, *semester grades will be counted* rather than year grades.

A grade earned by repeating a course may not be counted as higher than "C," even though a higher grade may be reported. This rule does not apply to grades earned in this manner prior to March, 1931.

Removal of Deficiencies.—For a statement of the various methods by which deficiencies in the subject and scholarship requirements for admission by Plan I may be removed, see pages 28-30.

**ADMISSION TO FRESHMAN STANDING BY CERTIFICATE AND
RECOMMENDATION OF THE PRINCIPAL**

An applicant who graduated from an accredited high school in California February, 1931, or before, may be admitted to the University of California in freshman standing without examination provided he presents the unqualified recommendation of the principal (Principal's Recommendation, Form A) and *in addition* a statement of the principal of the school that he was entitled to the recommendation *at the time of his graduation from the school*. A blank form for the statement regarding the recommendation may be obtained from the Office of Admissions.

PREPARATION FOR UNIVERSITY CURRICULA

In the table on the following page there is shown for each of the principal University curricula to which freshman students may be admitted the high school preparation which, in the opinion of University authorities, is desirable. Each program includes the subjects which are required for admission to the University of California, so arranged as to permit the student in a California high school to combine with the subjects thus recommended the additional subjects required for high school graduation according to regulations of the State Board of Education.

Attention is called especially to the fact that physics and chemistry are recommended in the preparation for each curriculum (with a single exception) in the College of Letters and Science. This has been done 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 will release the student from a portion of the requirements for the Junior Certificate in the college and thereby increase his opportunity for elective study in the freshman and sophomore years of the University course.

Especial care should be exercised by the high school student in choosing a foreign language. High school Latin is valuable in itself and will satisfy either the (b) or (e) requirements of the Junior Certificate in the College of Letters and Science; other languages satisfy only the (b) requirement. The study of a modern language is important not only from the standpoint of broad cultural preparation but also for the reason that a reading knowledge of foreign languages may be very useful in the pursuit of advanced work in many departments of the University.

The high school student who plans to enter the University of California but who at the outset of his high school course is uncertain as to which of the several University curricula he may wish to follow, should insure to himself a wide range of opportunities by completing in the high school a program of

HIGH SCHOOL SUBJECTS REQUIRED FOR THE SEVERAL UNDERGRADUATE CURRICULA AND SUGGESTED ELECTIVES

College and Curriculum†	Mathematics					Lab. Sci.		Foreign Language						Freehand Draw.	Geometrical Draw.	Electives	
	History	English	El. Alg., Pl. G.	Alg. Theory	Trigonom.	Solid Geom.	Chemistry	Physics	French	German	Greek	Italian	Latin				Spanish
College of Letters and Science:																	
aAnthropology.....	3	3	2				1	1	2	2							
aArchitecture.....	1	3	2				1	1	3	3							
abArt.....	1	3	2				1	1	4	*	*	*					
Astronomy.....	1	3	2				1	1	2	2							
Bacteriology.....	1	3	2				1	1	*	*							
Botany.....	1	3	2				1	1	2	2		2					
Chemistry.....	1	3	2				1	1	2	2							
Economics.....	1	3	2				1	1	2	3	*	*	3				
English.....	2	3	2				1	1	3	*	*		3				
French.....	1	3	2				1	1	4	4		2					
Geography.....	1	3	2				1	1	2	2							
Geology.....	1	3	2				1	1	2	2							
German.....	1	3	2				1	1	4								
Greek.....	1	3	2				1	1		3							
History.....	3	3	2				1	1	*	*	*	2					
aHousehold Art.....	3	3	2				1	1	2	*	*	*	*				
Household Science.....	1	3	2				1	1	*	2							
aItalian.....	1	3	2				1	1	*	*		4					
Latin.....	1	3	2				1	1	*			4					
Mathematics.....	1	3	2	1			1	1	2	2							
abMusic.....	1	3	2				1	1	2	2							
abNursing (Five Year Course).....	1	3	2				1	1	2	2		*	*	*			
aOriental Languages.....	1	3	2				1	1	2	2		*	*	*			
cPaleontology.....	1	3	2				1	1	2	2		*	*	*			
Philosophy.....	1	3	2				1	1	2	2		*	*	*			
abPhysical Education & Hygiene.....	1	3	2				1	1	2	2		*	*	*			
Physics (and abOptometry).....	1	3	2				1	1	2	2		*	*	*			
Political Science.....	3	3	2				1	1	2	2							
Pre-Dental.....	1	3	2				1	1		4							
Pre-Legal.....	1	3	2				1	1					3				
Pre-Medical.....	1	3	2				1	1	2	2		*	*	*			
Psychology.....	1	3	2				1	1	2	2		*	*	*			
cPublic Health (Hygiene).....	1	3	2				1	1	*	2		*	*	*			
abPublic Speaking.....	1	3	2				1	1	2	2		*	*	*			
aSemitic Languages.....	1	3	2				1	1	2	2		*	*	*			
aSlavic Languages.....	2	4	2				1	1	2	2		*	*	*			
aSocial Institutions.....	1	3	2				1	1	2	2		*	*	*			
Spanish (and abPortuguese).....	1	3	2				1	1				2		4			
Zoology.....	1	3	2				1	1	2	2			2				
Teachers College:																	
Art.....	2	3	2				1	1	4	*						2	
Commerce.....	1	3	2	1			1	1	2	*				*		3	
Education.....	3	3	2				1	1	4	*				*		1	
Home Economics.....	1	3	2				1	1	*	2		*	*	*		5	
Mechanic Arts.....	1	3	2				1	1	*	2		*	*	*		2	
Music.....	1	3	2				1	1	2	2				*		3	
Physical Education.....	1	3	2				1	1	2	*		*	*	*		5	
College of Agriculture:																	
Subtropical Horticulture.....	1	3	2				1	1	*	*			2			4	
cForestry; Landscape Design.....	1	4	2				1	1	*	*			2		1	1	
cOther Agricultural Curricula.....	1	3	2				1	1	*	*			2			4	
abCollege of Chemistry.....	1	3	2				1	1	2	2					1	1	
abCollege of Commerce.....	1	3	2				1	1	2	*				*		3	
abCollege of Engineering.....	1	3	2				1	1	*	2				*		2	
abCollege of Mining.....	1	3	2				1	1	*	2				*		4	
cCollege of Pharmacy.....	1	3	2				1	1	*				2		1	1	

† For explanation of letters prefixed to the title of college or curriculum, see page 27.

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.

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 and that unless this caution be observed the student, although admitted to the University, may find himself unable to proceed to the bachelor's degree in the normal period of four years.

In the table the amount of high school credit is shown in standard units, a unit representing the measure of a subject pursued throughout the school year of from 36 to 40 weeks and constituting approximately one-quarter of a full year's work in high school.

Under Foreign Language in the table specific recommendations are shown by numerals indicating the amount of credit. The asterisk (*) indicates an acceptable substitute for a language specifically recommended.

The letters prefixed to the title of college or curriculum have the following significance:

- a. Complete major offered only at Berkeley.
- b. The first two years may be taken at Los Angeles.
- c. The student may make up a program of one year's work at Los Angeles.

If no letter is prefixed, the complete curriculum is offered at the University of California at Los Angeles.

II. ADMISSION TO ADVANCED STANDING

An applicant for admission to the University in advanced standing, in order to be admitted, must present evidence satisfactory to the Board of Admissions respecting the work completed by him at other collegiate institutions and the grades of scholarship attained therein. A thoroughly satisfactory scholarship record, as distinguished from a record which is poor or barely passing, is required for admission in all cases. An applicant is not at liberty to disregard his collegiate record and apply for admission in freshman standing but is subject without exception to the regulations regarding admission to advanced standing.

In addition, each applicant will be required to present evidence that he has completed in full the subject and grade requirements prescribed for the admission of high school graduates in freshman standing. For a statement regarding the removal of deficiencies in these requirements see page 29.

An applicant from a *junior college or state teachers college* in California, who upon graduation from high school did not qualify for admission in

freshman standing, must present evidence that he has removed all entrance deficiencies and that he has *in addition*

(a) Completed not less than fifteen semester units of work in courses acceptable for advanced standing in the college of the University to which admission is sought, with a satisfactory average as distinguished from a barely passing grade, or

(b) Completed not less than fifteen semester units of work in courses acceptable for advanced standing in the college of the University to which admission is sought, with a distinctly high average of scholarship.

Subject A: English Composition.—Credit for Subject A (English Composition) is given upon certificate only to those students who enter the University with advanced standing, provided they present credentials showing the satisfactory completion elsewhere of collegiate training in composition. In all other cases an examination by this University at Berkeley or Los Angeles, or under its jurisdiction elsewhere, is required.

III. ADMISSION BY EXAMINATION

An applicant for admission whose school work in California or elsewhere has not been such as entitles him in the opinion of the Board of Admissions to admission by certificate as described under Plan I, or to admission by examination in a limited number of subjects as described on page 30, may gain admission by passing examinations in from ten to fifteen units, including the required subjects of the high school program, (a) to (f). The precise number of examinations which each applicant must take will be determined by the Board of Admissions.

The University has discontinued the holding of matriculation examinations. All applicants who enter by examination will be required to take the examinations of the College Entrance Examination Board. These examinations are usually held during the third week in June (in 1936, June 15–20, inclusive) at the following centers in California: Los Angeles, Berkeley, San Rafael, Stanford University, Santa Barbara, Carpinteria, La Jolla, Ojai, Avalon (Catalina Island), and Claremont. A circular giving information concerning the examinations and 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 (\$10.00) should reach the Board on or before May 18, 1936.

REMOVAL OF ADMISSION DEFICIENCIES

A. FOR FRESHMAN MATRICULATION

Deficiencies in the scholarship or subject requirements for admission in freshman standing by certificate may be removed in several ways as indicated in the following paragraphs.

In considering work done after high school graduation as a basis for admission of an applicant who did not meet the requirements, it is assumed that each one has done his very best and it remains to be determined whether this best is judged good enough to offer reasonable assurance that the applicant will successfully pursue work on the University level. Unless the work undertaken is of a substantial nature and unless satisfactory grades are made in subjects of fundamental importance, the applicant must expect his scholarship average to be subject to a discount.*

(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. The program of studies proposed for this purpose should be approved in advance by the Director of Admissions.

(2) *By courses in the University of California Summer Sessions* (Los Angeles and Berkeley), and the Intersession (Berkeley).—Elementary college courses and a limited number of courses of high school level are offered. Advice respecting the selection of these courses and the grades required should be obtained from the Director of Admissions.

(3) *By courses in the Branch of 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 nondegree or degree courses, or a program combining both types of work. Advice regarding this work should be sought from the Recorder, Branch of the 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 in the field or fields in which the deficiencies were incurred.† The requirements for admission in advanced standing must also be satisfied.

(5) *By courses in junior colleges or state teachers' colleges* completed in the deficient field or fields with satisfactory grades and in a proper amount.† In addition, all requirements for admission to the University in advanced standing must be satisfied. See statement on page 27.

* Work of college grade undertaken to remove high school deficiencies is usually accepted at the rate of three semester units for one matriculation unit; i.e., a year's work in a subject in the high school. Ordinarily, no credit for advanced standing will be assigned for work of college grade employed in the removal of *subject deficiencies*, although the grades received in such courses will be considered in the determination of the applicant's scholarship standing for admission.

Normally, full University credit will be assigned for work of college grade employed for the removal of deficiencies in the scholarship requirements for admission to freshman standing, subject to the usual rules regarding the acceptance of credit for advanced standing.

† Definition of "field."—Credits earned in courses above the high school level may be presented as follows: economic, history, or political science for requirement (a); any English for (b); any standard college mathematics for (c); any laboratory science as previously defined for (d); Latin, Greek, French, Spanish, German, or Italian for (e); any mathematics as defined above or foreign language or laboratory chemistry or physics for (f).

(6) *By junior college noncertificate courses* representing work not of university level taken after high school graduation. The scholarship standards for these courses are 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; other work must be completed with A or B grades in order to make up scholarship deficiencies.

(7) *By postgraduate courses in accredited high schools.*

(8) *By College Entrance Board examinations* which offer three ways of removing deficiencies:

(a) *Selected examinations.*—A graduate of an accredited high school may remove deficiencies in the subject or scholarship requirements for admission by certificate by passing examinations in the subjects in which the deficiencies occur.

(b) *Examination in three fields of study.*—A high school graduate who has completed the required subjects of the high school program, (a) to (f) inclusive, as described on page 22, may qualify for admission by passing, in a single examination period, examinations representing three distinct fields of study. The candidate is permitted to select three of the four fields listed below in which to be examined.

(i) History, 1 unit; or English, 3 units.

(ii) Mathematics. This examination must either include elementary algebra and plane geometry, 2 units, or must be 1 unit of advanced mathematics, if such work is presented in satisfaction of requirement (f).

(iii) Science. This examination must be in chemistry, or physics, or biology, or zoölogy, or botany, or physiology—1 unit. If chemistry or physics is presented in satisfaction of requirement (f), the examination in science must be in the subject thus presented.

(iv) Foreign language. This examination must be in the 2 units of language presented in satisfaction of requirement (e); provided that, if foreign language be presented in satisfaction of requirement (f), the examination must cover all the work in foreign language presented in satisfaction of both requirement (e) and requirement (f).

(e) *Examinations in from 10 to 15 units*, including the required subjects of the high school program (a) to (f), may be taken by an applicant for admission whose school work in California or elsewhere does not, in the opinion of the Board of Admissions, entitle him to admission by certificate as described above or to admission by examination in a limited number of subjects as described under (8b). The precise number of examinations that each applicant must take will be determined by the Board of Admissions.

**B. 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 record fails to show a satisfactory scholarship average may be admitted only when the deficiency has been removed by additional work completed with grades sufficient to offset the shortage of grade points. This may be accomplished (1) in the intersession, summer or post-session, or the Extension Division of the University, or (2) in other approved higher institutions.

ADMISSION FROM SCHOOLS AND COLLEGES IN FOREIGN COUNTRIES

Credentials from schools and colleges in foreign countries are evaluated in accordance with the regulations governing admissions, as stated in preceding sections of this circular.

An applicant whose education has been conducted in a language other than English must satisfy the Board of Admissions that his command of English is sufficient to permit him to profit by university instruction.

The College Entrance Examination Board conducts examinations in English for this purpose in numerous centers in Mexico, Central America, South America, Europe, and Asia in April of each year. Requests for examinations in other places must reach the Secretary of the Board not later than December 1 of the preceding year. Applications and other communications should be addressed to the College Entrance Examination Board, 431 West 117th Street, New York City. The cable address is Exambord, New York.

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 grade, or for upper division or graduate courses actually taken in the University of California or in another English-speaking institution of approved standing.

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 Directed Teaching upon the recommendation of the Director of the Training Department.

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 will be assigned by the Director of Admissions. A personal interview will in general be necessary before final action can be taken.

Transcripts of record from all schools attended beyond the eighth grade are required. Applicants for special status will be required to take an aptitude test and the examination in Subject A.

Applicants will not be admitted directly from the high schools to the status of special student. The graduates of such 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.

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

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. Special students may be admitted to those regular courses for which, in the judgment of the instructors, they have satisfactory preparation. *Special students will seldom be able to undertake the work of the engineering and professional colleges or schools until they have completed the prerequisite subjects.*

Instruction is not offered in such essential preparatory subjects as elementary English, United States history, elementary Latin and Caesar, elementary physics, nor, save in the summer sessions, or in the Extension Division, in elementary algebra, plane geometry, algebraic theory, or elementary chemistry.

A special student may at any time attain the status of regular student by satisfying all the matriculation requirements for the class he desires to enter. Special students should, however, use for this purpose the facilities of the Extension Division, summer sessions, College Board examinations, or of the nearby junior and four-year colleges to make up these deficiencies, as admission to special status is not designed for this purpose.

Students over twenty-four years of age at the time of admission are excused from military science.

Special students must apply for reëntry in a second or subsequent semester, as special status is intended for only a limited period of time.

Prospective applicants should communicate with the Director of Admissions who will furnish forms of application for admission and for transcripts of high school record.

ADMISSION TO GRADUATE STATUS

Applications for admission to graduate study 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 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 3, 1935, for the half-year beginning September, 1935, nor later than February 4, 1936, for the half-year beginning February, 1936. Failure to observe these dates will result in the addition of a late application fee of \$2.

The number of applicants that can be admitted is strictly limited; the basis of selection 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 1.50 grade-point average at the University of California at Los Angeles (half way between C and B) is demanded. Notification of acceptance or rejection will be sent to each applicant as soon as possible after the receipt of his application. *Applicants are warned* not to make definite arrangements without such notice, on the assumption that they will be accepted for enrollment.

Applications are to be made upon the form 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 \$3.00 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; it is returned to applicants who are not accepted, but may not be refunded to a person who has been accepted and who does not enroll.

UNCLASSIFIED STATUS

Attention is called to the possibility of registration in "unclassified status," open to students holding degrees from recognized institutions; no limitation is placed upon the number of students in this status. Unclassified students are in general admitted to any undergraduate course for which the prerequisites are had; they may not enroll in any graduate course, nor is any assurance of later admission to graduate status involved. In the event of such admission to graduate study the grade point requirements for degrees and credentials will apply to all work done in unclassified status; degree credit may be allowed for such work upon the approval of the department of the candidate's field.

GENERAL INFORMATION

REGULATIONS CONCERNING STUDENTS

REGISTRATION

EACH STUDENT REGISTERS in the University of California at Los Angeles on days appointed for this purpose, at the beginning of each half-year. Registration covers the following steps: (1) filling out application, 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.

MEDICAL EXAMINATIONS

Each applicant must also appear before the University Physicians and pass a medical examination, to the end that the health of the University community as well as that of the individual may be safeguarded. Evidence, satisfactory to the University Physicians, of successful immunization against smallpox is required.

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

LATE ADMISSION AND REGISTRATION

The student or applicant for admission should consult the calendar of the University of California at Los Angeles (which differs from the calendar of the departments at Berkeley) and acquaint himself with the dates upon which students are expected to register and begin their work at the opening of the session. Failure to register upon the stated registration day 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.

The 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 in extenuation of such deficiency.

A fee of \$2.00 is charged for late registration; this fee applies both to old students and to new.

A qualified student or applicant who fails to register upon the stated registration day on 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 may be required to obtain the written approval of all the instructors in charge of his proposed courses, as well as of the dean of his proposed college, before his registration may be completed. The qualifications of an applicant for admission to the University after the first two weeks of instruction will be given special scrutiny by the Associate Director of Admissions and the dean of the college to which admission is sought.

Transfer to the University of California at Los Angeles in February.—It is of special importance that a student in another institution who is desirous of transferring to the University of California at Los Angeles after the stated registration day of the second half-year 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 indicate the college to which he wishes admission, and the advanced standing which he expects to offer at the time of transfer.

CLASSIFICATION OF STUDENTS

A *regular student* is an undergraduate who has complied with the requirements for matriculation, and who pursues, or is entitled to pursue, the established curriculum of a college.

A student who has attained junior standing is in the "upper division," which includes the third and fourth years of the course.

A *special student* is one who, though he does not meet the University matriculation requirements, is nevertheless allowed to register for a restricted program because of maturity and fitness to carry the special work elected. His fitness to carry the work may be attested to by official transcripts of preparatory studies and will normally be tested by formal examination covering his familiarity with the field prerequisite to the elected work. (See also page 32.)

A special student by virtue of his status is not a candidate for any degree. Permission to attend is granted only for one half-year; application must be again made for re-entry in a second or subsequent half-year.

A *graduate student* is one who has been admitted to pursue work leading to a master's degree or to a general secondary or junior college teaching credential.

An *unclassified student* is one holding an academic degree from a recognized institution who enters for the purpose of taking undergraduate courses only; this status includes candidates for a second (and different) bachelor's degree, or holders of degrees working for a teaching credential in the Teachers College.

STUDENT'S 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.

The presentation of a study list by a student and its acceptance by the college evidence an obligation on the part of the student to perform the designated work faithfully and to the best of his ability. Any student who discontinues, without formal notice, University exercises in which he is a regularly enrolled attendant, does so at the risk of having his registration privileges curtailed or entirely withdrawn.

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. No excuse to be absent will relieve the student from completing all the work for each course to the satisfaction of the instructor in charge.

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.

For regulations concerning withdrawals from the University see page 44 of this Catalogue.

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

UNITS OF WORK AND CREDIT: STUDY-LIST LIMITS

Both matriculation and university work are measured in "units." In the high school a *standard secondary unit* is the measure of a subject pursued throughout the school year of thirty-six to forty weeks and constitutes approximately one-fourth of a full year's work. A university *unit of registration* represents one hour of a student's time at the University, each week, during one half-year, in lecture or recitation, together with the time necessary for preparation; or a longer time in laboratory or other exercises not requiring preparation. Credit for 120 units in the College of Letters and Science and in the Teachers College, and 130 in the College of Agriculture, distributed according to the requirements of the college, is necessary for a bachelor's degree.

A student on scholastic probation, or subject to supervision of the Committee on Reinstatement, is limited to a program of 12 units per half-year, 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 Teachers College a student may present a study-list aggregating 12 to 16 units per half-year without

special permission.* During his first half-year in residence a student may not receive credit for more than 16 units of work. After the first half-year a student may on petition carry a program of not more than 18 units, if in the preceding half-year he attained an average of at least two grade points per unit in his total program (of 12 units or more). A student whose record during the preceding half-year was free of all deficiencies, and who is in good academic standing, may without special permission submit a program of $\frac{1}{2}$ unit in excess, provided the $\frac{1}{2}$ unit be in required physical education. The student may not, however, count toward the degree more than the allowable study list maximum of his college. All courses in military science and physical education and repeated courses are to be counted in study list totals. Any work undertaken in the University or elsewhere at the same time with a view to credit toward a degree must also be included.

In the College of Agriculture regular students who are free from deficiencies in the work of the previous half-year, and who are 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 Chemistry, the College of Engineering, the College of Commerce, or the College of Mining, and who are free from deficiencies in the work of the previous half-year, 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 non-professional curricula in Letters and Science, 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 Graduate Study*.

SUBJECT A: ENGLISH COMPOSITION

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

2. The examination in Subject A will be given at the opening of each half-year and at the opening of the Summer Session (see Registration Circular to

* 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.

Mechanic Arts A by 2 units.

be obtained from the Registrar of the University of California at Los Angeles). A second examination for late entrants will be given two weeks after the first examination in each half-year; for this examination a fee of \$1.00 will be charged. Papers submitted in the examination will be rated as either "passed" or "failed." Any 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.

3. Every student who does not pass in the examination in Subject A will be required to take, immediately after his failure, a course of instruction known as the *Course in Subject A*, which gives no units of credit toward graduation, but which reduces the maximum program allowed the student by two units. 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. The course in Subject A will be given each half-year, three hours a week.

4. If in the judgment of the instructor in the class in Subject A a student shows excellence in English composition through a period of at least two weeks, the instructor is authorized to give him a final grade of passing in Subject A, to permit him to withdraw from further attendance, and to drop the subject from his study list (thereby making it possible for the student to add two units of work to his program), and to refund a portion of the \$10.00 fee.

5. A student who has not passed the examination or course in Subject A will not be admitted to any University course in oral or written composition; he will not be granted a Junior Certificate or given junior standing; he will not be granted a bachelor's degree.

6. A student who has failed in an examination in Subject A may not have the privilege of taking a subsequent examination; he must obtain credit in the subject through passing the course in Subject A.

7. A student who passes Subject A is not required, but is advised to continue his training in oral or written composition.

8. Failure in the examination does not prevent admission to the University of California.

Exemption:

A student who has received a grade of 60 per cent in the College Entrance Examination Board examination 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 of California at Berkeley or any other seat of the University, or given under the jurisdiction of the University at any junior college or other assigned place, if the papers are read by the Committee on Subject A, will receive credit for Subject A.

A student who enters the University of California at Los Angeles with advanced standing, and who has satisfactory credit for a college course in English Composition, will be exempt from the requirement in Subject A.

PIANO TEST

Every student entering the Kindergarten-Primary curriculum 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 footnote on page 91.

MILITARY SCIENCE AND PHYSICAL EDUCATION

Every undergraduate student, man or woman, shall, upon admission, report immediately to the proper officer for enrollment in physical education,* following 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, shall report immediately for enrollment in military science. The student shall list the courses in military science and physical education upon his study card with other University courses.

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 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 during the pendency of the petition.

Upon petition a student more than twenty-four years of age at the time of admission may 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.

In case a student subject to these requirements shall list the prescribed course or courses on his study list, and thereafter without authority shall fail to appear for work in such course or courses, the neglect will be reported to the dean of his college. With the approval of the Vice-President and Provost of the University of California at Los Angeles, the dean will suspend the student from the University for the remainder of the half-year, and will notify the Registrar. On recommendation of the professor in charge of the work, and with the approval of the Vice-President and Provost, the dean is authorized to reinstate the student and will notify the Registrar of such reinstatement.

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

* The University requirements in physical education referred to in this section cover Physical Education 3 (men) and 4 (women), $\frac{1}{2}$ unit courses which are required of students in each semester of the first and second years.

AMERICAN INSTITUTIONS

Every candidate for a degree or teaching credential is required to present evidence of knowledge concerning the Constitution of the United States and American institutions and ideals. This is normally done by successful completion of the course American Institutions 101 or of certain other courses in the departments of History and Political Science, accepted by the Committee on American Institutions. The requirements may also be satisfied by an examination conducted each half-year by the Committee which covers essentially the material of the course American Institutions 101. 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 times, or may be had at the information desk of the Registrar's office.

AUTHORITY OF INSTRUCTORS

No student will be permitted to enter upon the study of any subject if the officer of instruction in charge of that subject is satisfied that by reason of lack of preparation he is not competent to undertake it.

Every student is required to attend all his class exercises and to satisfy the instructor in each of his courses of study, in such way 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 Vice-President and Provost of the University of California at Los Angeles, may at any time exclude from his course any student who, in his judgment, has neglected the work of the course. Any student thus excluded shall be recorded as having failed in the course of study from which he is excluded, unless the faculty shall otherwise determine.

EXAMINATIONS

Final examinations are required in all undergraduate courses except laboratory courses and such other courses as, 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 shall, so far as practicable, be conducted in writing. In advance of each, a maximum time shall be set which no candidate shall be allowed to exceed. The time for examination sessions shall not be more than three hours.

Any department may examine students, at the end of the half-year immediately preceding their graduation, in the major subject in which such department has given instruction.

No student will be excused from assigned examinations.

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

Reexaminations are permitted only for the purpose of removing conditions (grade E). 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, D, or F in any course is not allowed a reexamination.

Concerning examinations for the removal of conditions see under "Conditions and Failures," below.

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 Associate Director of Admissions; fees are required for such validation examinations.

EXAMINATIONS FOR CREDIT FOR PRIVATE STUDY

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 given 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 below); no fees are required.

Arrangements must be made in advance with the dean of the student's college; his approval is necessary before an examination can be given.

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

GRADES OF SCHOLARSHIP: GRADE POINTS

The final result of the work of the students in every course of instruction will be reported to the Registrar in six grades, four of which are passing, as follows: A, excellent; B, good; C, fair; D, barely passed; E, conditioned; F, failed.

Any student may be reported grade "E" (conditioned) in a course, if the work in an examination or other exercise of the course is either incomplete or unsatisfactory, and if in the judgment of the instructor the deficiency is sufficient to prevent a passing grade, without necessitating a repetition of the course. See heading below, "Conditions and Failures," for grades students may earn upon removing conditions.

No student will receive credit in any course in which he may have received grade "F," except upon successful repetition of that course.

The term "incomplete" will not be used in reporting the work of students. The instructor is required in every case to assign a definite grade (A, B, C, D, E, or F) based upon the work actually accomplished, regardless of the circumstances which may have contributed to the results achieved.

In all colleges and curricula at the University of California at Los Angeles grade points or quality units will be assigned as follows: A, 3 points per unit; B, 2 points per unit; C, 1 point per unit; D, no points per unit; E, minus 1 point per unit; F, minus 1 point per unit. Removal of grade E or F will entitle the student to as many grade points as may have been lost by the condition or failure, but no more. For exceptions permitted in certain cases in which grade E is assigned, see under "Conditions and Failures," below.

A candidate for the bachelor's degree in the College of Letters and Science, in the Teachers College,* in the College of Agriculture, in the College of Commerce, or in the College of Chemistry must have attained at least as many grade points or quality units as there are time units or quantity units in the credit value of *all courses undertaken* by him in the University of California in and after August, 1921; in the Colleges of Engineering and Mining this regulation also applies to candidates for the bachelor's degree for all courses undertaken after January, 1930.

CONDITIONS AND FAILURES

For the removal of a condition a student may, on petition, have the privilege of either a reexamination with the class next repeating the subject or a special examination out of class; in courses of the Summer Session, however, reexaminations for the removal of deficiencies are not provided. For every such examination a formal permit, to be obtained in advance on petition filed with the Registrar, must be shown to the instructor in charge of the examination. For every course in which a special examination is undertaken for the removal of a condition, a fee of \$2.00 is charged; there is no fee for a reexamination (final examination taken with a class), provided the final examination be the only task required by the instructor for the removal of the condition. The fee for two or more special examinations undertaken to remove conditions during a single half-year is \$3.00. A form of petition for a special examination or for admission to an examination with a class, together with instructions for procedure, may be obtained from the Registrar.

A condition in a course in which a final examination is regularly held may not be removed, unless the student shall have passed a satisfactory final exami-

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

nation in the course, either at the time when the course was originally taken, or at a later time, as above provided.

If a student has been conditioned in a course because of omitting certain portions of the required work, or because of unsatisfactory performance in them, the instructor may require the satisfactory completion of that work before the condition in the course is removed. Such tasks shall count as a special examination, subject to the fee prescribed for a special examination.

Removal of grade "E" (conditioned) by reexamination or otherwise shall entitle the student to receive grade "D" in the course and to receive *as many grade points as have been lost by the condition, but no more*. An exception to this rule is permitted, however, when the deficiency consists solely in the *omission* of the final examination or other required exercise, due to illness, or other circumstances over which the student has no control. In such a case the student may petition to have that grade assigned which he would have received had the work been completed in regular course, together with full grade points. His petition must set forth in detail the reasons for his failure to complete the work; it should receive endorsement by the instructor that the work, as far as presented, was satisfactory. The Registrar shall refer the petition to the dean of the college for decision.

If a student who has incurred a condition in any course fails to make up the condition by the end of the next semester of his residence in which the course is regularly given, then the condition becomes a failure and can be made up only by repetition of the course.

Any student who is reported as having failed in any prescribed course in military 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.

A student who fails to attain grade D or a higher grade in any course following an examination for the removal of a condition will be recorded as having received grade F (failure) in the course.

SCHOLARSHIP RULES: DISMISSAL FOR FAILURE TO MEET MINIMUM REQUIREMENTS

The following regulations are effective in all the academic colleges of the University:

(1) Any student who fails to maintain a "C" average in two consecutive semesters of attendance may be (a) warned, (b) assigned to a special adviser, (c) limited as to study list.

(2) *Probation.* Any student whose record at the close of either regular semester shows a total deficiency of 10 or more grade points shall be placed on probation.

(3) *Dismissal.* Any student whose record for any regular semester falls below a "D" average, regardless of his grade point standing, or any student who fails to maintain a "C" average while on probation, is subject to dismissal. 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.

HONORABLE DISMISSAL AND LEAVE OF ABSENCE

A *letter of honorable dismissal* is issued on request to a student in good standing who withdraws without the expectation of resuming his work in the same semester at Los Angeles. A *brief leave of absence* may be issued, as an exceptional privilege, to a student who finds it necessary to withdraw for two weeks or longer, but who wishes to retain his status in his classes and to resume his work before the close of the current half-year, upon a date to be fixed by the University.

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. A student who withdraws from the University before the end of the session without giving notice of withdrawal to the Registrar, may be debarred from subsequent registration.

DISCIPLINE

The University authorities expect all students to set and to observe among themselves a proper standard of conduct. It is therefore taken for granted that, when a student enters the University, he has an earnest purpose and studious and gentlemanly habits; and this presumption in his favor continues until, by neglect of duty or by unseemly behavior, he reverses it. But if an offense occurs, whether it be against good behavior or academic duty, the University authorities will take such action as the particular occurrence, judged in the light of the attendant circumstances, may seem to them to require. 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.

Grades of Discipline.—There are five grades 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. Expulsion is the most severe academic penalty, final exclusion of the student from the University.

The Vice-President and Provost of the University of California at Los Angeles is entrusted with the administration of student discipline with full power to act.

DEGREES; TEACHING CREDENTIALS

Detailed statements of requirements for degrees and teaching credentials 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 higher teaching credentials see also the *Announcement of Graduate Study*.

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.

State Board Teaching Credentials.—The State Board of Education issues teaching credentials of a wider variety than those for which the University has especially designed curricula. In some cases, moreover, the State Board accepts teaching experience or other individual qualifications as a substitute for the standard requirements of University credit. If a student proposes to meet the State Board requirements directly, and is not a candidate for the University credentials, he should make direct application to the State Board for a statement of the courses which he must still complete. His program of University study will then be based in part on his statement from the State Board, and in part upon the general University requirements in military science, physical education, Subject A, and American Institutions.

Senior Residence.—Every candidate for the bachelor's degree is required to enroll during the senior or final 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 post-sessions as equivalent to one half-year; but in any event 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.

FEES*

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.

The incidental fee, \$27.00, which must be paid each half-year by all undergraduates on date of registration, covers expenses of students other than the cost of their instruction and entitles them to the use of gymnasium, tennis courts, baths, soap, towels, washrooms, etc.; consultation, medical advice or dispensary treatment in case of illness; and meets in part the expenses in connection with registration and graduation. It also includes the rights and privileges of membership in the Associated Students, valued at \$4.00; see page 56. This fee is not remitted in whole or in part for those who may not desire to make use of any or all of these privileges. In case a student withdraws from the University within the first three weeks of the semester, a portion of this fee will be refunded. The incidental fee for graduate and unclassified students is \$23.00 each half-year; it does not include membership in the Associated Students.

Tuition Fee for Nonresidents.—The University charges a tuition fee to every student whose legal residence is not in the State of California. A student entering the University for the first time should read carefully the rules†

* 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 Comptroller, 42 Library. 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.

† Each nonresident student at the University of California shall pay a tuition fee for each semester of his attendance at the University. Nonresident tuition fees shall be payable at the time of registration.

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 a 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.

which govern the determination of residence, 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 prospective students, who have not attained the age of twenty-two 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 during which it is proposed to attend the University, does not, of itself, entitle the student to classification as a resident of California. Applicants for admission who are in doubt as to their residence status, should consult the Attorney for The Regents in Nonresidence Matters. On the day preceding the opening day of registration and during the first week of instruction of each semester he may be consulted upon the campus at a place which may be ascertained by inquiry at the Information Desk in the Registrar's Office, and throughout the registration period, he may be consulted during the hours of registration at the place where registration is being conducted.

Tuition in the academic colleges is free to residents of the State of California. Nonresidents of California are required to pay a tuition fee of \$75.00 each semester; this fee is in addition to the incidental fee. The tuition fee for nonresident students may be remitted in whole or in part for students in full graduate standing in other than professional schools and colleges.* An alien who has not made, prior to the opening day of a semester during which it is proposed to attend the University, a valid declaration of intention to become a citizen of the United States, is classified as a nonresident of California.

The eligibility of a student to register as a resident of California may be determined only by the Attorney for The Regents in Nonresidence 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 as to residence will be determined by the attorney soon after registration. Old students are advised that application for reclassification as a resident of California must be filed within ten days after regular registration, or in the case of late registrants, within one week after registration. Application for a change of classification during some preceding semester will not be received under any circumstances.

* The nonresident tuition fee may be remitted in whole or in part in the case of students in full graduate status (except in the professional schools 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 higher degrees. No graduate student in full graduate standing, 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 shall be interpreted as meaning an A- or B+ average in at least the last year of study in which the student has engaged. Students exempted from the tuition fee pay only the incidental fee. Petitions for exemption from the nonresident tuition fee should be filed with the Registrar.

If the student registers for less than 12 units the tuition fee is as follows: Minimum, \$25.00; \$5.00 per unit for work aggregating six to eleven units or fraction thereof.

Fine for delayed payment of any of the above fees or of departmental fees or deposits, \$1.00. Departmental fees and deposits must be paid within seven days after registration. Students will save time if all fees are paid when registering.

Application fee, \$3.00. This fee will be charged every applicant for admission to the University, payable at the time the first application is filed. Applicants for graduate status are charged this fee, even though it may have been paid once in undergraduate status; see page 33.

Late application for admission, \$2.00.

Late registration, \$2.00. (After date set as registration day.)

Late filing of registration book, \$1.00 (More than seven days after registration.)

Late examination in Subject A, \$1.00.

For courses added or dropped after date set for filing registration book, \$1.00 per course.

For reinstatement of lapsed status, \$5.00.

For duplicate registration card, \$1.00.

For late application for teaching assignment, \$1.00.

Medical examination: original appointment, or deferment arranged in advance, no fee; fee for a second appointment, \$1.00.

Laboratory and Departmental Fees.—In laboratory and certain other courses, a charge is made to cover materials used. Students should refer to the latter part of this Catalogue, where such fees are listed for each department. The total charge for students in the elementary laboratories may amount to from \$5.00 to \$30.00 per year.

Deposit required of applicants for teaching positions who register with the Appointment Secretary: Persons registering with the Appointment Secretary will be required to make a deposit of \$5.00 to cover clerical cost of correspondence and copying of credentials.

REFUNDS

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

Refund on the nonresident fee of \$75.00 will be 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 after surrender to the Comptroller of his registration certificate and receipt. Students should preserve their receipts.

UNDERGRADUATE SCHOLARSHIPS

The Committee on Scholarships of the University of California at Los Angeles recommends for award a limited number of scholarships annually to students in the University of California at Los Angeles. On account of the limited number of scholarships available, for the present the Committee must restrict award to students who have been in attendance at least a half-year (except in the case of applicants for the LaVerne Noyes Scholarship and for the Mira Hershey Hall Scholarships described below). The Committee rates all candidates as 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 relating to them, should be filed with the Registrar on or before the 25th day of March 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.

The scholarships awarded for the year 1935-36 are as follows:

University Scholarships: ten of \$160.00 each, and ten of \$120.00 each.

Charles N. and Jennie W. Flint Scholarships: four of \$75.00 each.

B. B. Campbell Scholarships: four of \$50.00 each, awarded to freshmen who have completed a half-year at the University of California at Los Angeles.

Lena De Groff Scholarships: four of \$90.00 each.

Çercle Français-Pi Delta Phi Scholarship of \$75.00.

Louis D. Beaumont Fellowship of \$250.00, awarded to a senior student whose major is economics.

Prytanean Scholarships: one of \$54.00, and one of \$27.00.

Faculty Women's Club Scholarship of \$25.00.

A limited number of scholarships known as the LaVerne Noyes Scholarships are available to needy veterans of the World War or their children.

Certain scholarships are available for students in the College of Agriculture; for definite information consult the Prospectus of the College of Agriculture.

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

MIRA HERSHEY HALL AND BOWLES HALL SCHOLARSHIPS FOR FRESHMEN

The University will make available for the year 1935-36, thirteen freshman scholarships for men, who are to live at Bowles Hall on the Berkeley campus, and a like number for women who are to live in the Mira Hershey Hall on the

Los Angeles campus. The value of each scholarship will be a credit of one-half the cost of board and room in the dormitory (approximately \$180.00).

The selection of the beneficiaries of these scholarships is to be made through the agency of the California Alumni Association, with the approval of the respective scholarships committees of the University. Appointments to these scholarships are to be contingent upon the matching by the alumni of each such scholarship with an equivalent cash scholarship for some other student.

To this end the State has been divided into thirteen districts and alumni chairmen living in these districts have been appointed by the officers of the Alumni Association, who will in turn select other alumni to assist them.

A district alumni committee that is successful in raising money for a cash scholarship (minimum \$180) will have the privilege of naming a man for a Bowles Hall scholarship, or a woman for a Mira Hershey Hall scholarship and also to make a nomination for the cash scholarship. If they raise enough for two cash scholarships, they may name a man for a Bowles Hall scholarship, and a woman for a Mira Hershey Hall scholarship and nominate the two students to receive the cash awards. Holders of cash scholarships may be either men or women and may elect to attend at Berkeley, Los Angeles, Davis, or San Francisco.

The local alumni committees are to be entirely free to nominate whomever they desire, the appointments to be approved by the University Committees on Scholarships. Names of entering freshmen who have applied for scholarships will be sent to the respective chairmen through the Alumni Association, and may be used by them as a basis for setting up a list of candidates for consideration by their committees but they need not in any way limit themselves to these groups.

The University hopes that in the selection of the beneficiaries of these awards that, while substantial scholastic ability is highly important, the committees will select persons not only of high character but who have also shown qualities of leadership, and who give promise of reflecting credit upon themselves and upon the University.

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 Men or the Dean of Women.

PRIZES

The following prizes were awarded in the year 1935-36:

The J. Gimbel Award.—A medal and prize given by Mr. J. Gimbel to the man who has shown the best attitude toward the University in athletic endeavor.

The Ernest Dawson Prize.—Awarded to the senior or junior student owning the best book collection made during his college years.

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

Chi Omega Prize.—Awarded for the best essay on topics in the field of the social sciences.

A. E. Teague Prize.—Awarded for the best poetry of the year written by a student of the University of California at Los Angeles.

Kappa Gamma Epsilon Prize.—Awarded on the basis of a competitive examination in chemistry, open to students who have had freshman chemistry.

Bertha Hall Memorial Prizes.—Awarded to graduates in kindergarten-primary education creating the best music or rhythm for young children.

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

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

MISCELLANEOUS

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 secured at her office, 116C Josiah Royce Hall. No woman is permitted to complete her registration if her living accommodations are not approved by 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 hall of residence maintained by the University. It is conveniently located on the campus and accommodates one hundred thirty-one women students. Board and room is furnished residents of this hall for \$45.00 per month. Applications for residence should be filed with the Dean of Women as early as possible.

A number of desirable privately owned halls of residence offer accommodations to women; two, each with a capacity of fifty, furnish board and room for from \$35.00 to \$47.50 per month; others, with capacities ranging from twenty to ninety-nine, furnish housekeeping accommodations for from \$12.50 to \$20.00 per month. Fifteen dollars per month is suggested as a sufficient amount for food for housekeeping students. Private homes offer housekeeping accommodations for as low as \$10.00 per month, and board and lodgings for \$30.00 per month.

Self-supporting women students can usually obtain 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 in regard to their plans.

General University expenses which must be met by every student of the University may be found under "Fees," pages 46 to 48. The cost of books and stationery is estimated at \$18.00 to \$40.00 per year.

Extra-curricular expenses may be kept at a minimum. The expense of participating in general and honorary or professional organizations need not cost more than \$5.00 a semester. Membership in a social sorority may be estimated at from \$15.00 to \$20.00 per month, in addition to the cost of board and lodging.

The student living at home, although having no actual board and lodging expense, must plan for transportation and luncheon on the campus. While transportation varies according to the location of each student's home, \$10.00 per month is an average estimate. Luncheons may be estimated at \$5.00 to \$6.00 per month. However, some students reduce or eliminate this expense by bringing their luncheons from home.

Personal expenses, obviously, vary greatly according to the individual. The average woman student's estimate for clothing is from \$100.00 to \$300.00 per University year; for drugs and beauty shop, from \$15.00 to \$40.00; for recreation, from \$10.00 to \$50.00.

LIVING ACCOMMODATIONS AND GENERAL EXPENSES FOR MEN

The cost of attending the University varies greatly with different individuals, but the majority of men students living away from home spend between \$600.00 and \$800.00 a year. The incidental fee amounts to \$54.00 a year, and books and laboratory fees vary for most students from \$30.00 to \$60.00 a year depending upon the courses taken. This item will be higher for students specializing in fields which require much laboratory work. Students classified as nonresidents of California must also pay the tuition fee of \$75.00 each half-year.

The cost of board and room varies from \$35.00 to \$45.00 a month. A list of rooming and boarding houses for men is prepared by the Dean of Men, and may be obtained at Room 212, Josiah Royce Hall. The University does not maintain 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 \$5.00 to \$12.00, and for social fraternities from \$50.00 to \$100.00. The dues for social fraternities average about \$5.00 a month and the cost of living in a fraternity house including dues ranges from \$45.00 to \$55.00 a month. This amount does not include the cost of social affairs which may be given by the fraternity during the year.

There are many students working for a part of their expenses and a few who are entirely self-supporting. It is difficult, however, to find suitable employment in the vicinity of the campus and it is unwise for a student to enter the University without adequate funds to complete the year or without a satisfactory combination of savings and prearranged employment.

EMPLOYMENT**BUREAU OF OCCUPATIONS**

Students desiring employment should register with the Bureau of Occupations, 308 Kerckhoff Hall.

Little can be done in securing employment for students who are not actually on the ground to negotiate for themselves. Since it is so difficult for a stranger to obtain remunerative employment, in general, no one 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 half-year.

Board and lodging can frequently be obtained 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 per hour. A student qualified to do tutoring and other specialized types of work can occasionally find employment on a more remunerative basis than in the fields mentioned above.

Only in rare instances can a student be entirely self-supporting. With reasonable diligence a student can devote from twelve to twenty-five hours per week to outside work without seriously interfering with a University course of from twelve to sixteen units. It should always be borne in mind, however, by students seeking employment that not every kind nor every amount of outside work is entirely compatible with the student's main purpose at the University, namely, his education.

In 1934-35 the Federal Government made funds available for approximately six hundred jobs paying students at this institution from \$10.00 to \$20.00 per month. The students were selected according to need and scholarship by an administrative committee of the University. No assurance can be given of the continuation of this policy, but needy students are advised to make application at the Bureau of Occupations, Room 308, Kerckhoff Hall, after August 1st, 1935, to determine if similar aid will again be made available.

APPOINTMENT OFFICE FOR TEACHERS

Applicants for employment in teaching or tutoring should apply at the office of the Appointment Secretary, 123 Education Building. Upon the request of school officials the Appointment Secretary recommends teachers who, in the opinion of the faculty, are able to fill satisfactorily the positions for which teachers are being sought. To do this it is necessary that the Appointment Secretary have detailed information concerning the vacancies to be filled. The Secretary makes every endeavor to assist applicants to

obtain positions of the kind for which they are best fitted. Students are urged to make occasional calls at the office of the Appointment Secretary throughout their entire course. There is no expense to the school officials seeking teachers for the service rendered by this office.

LIBRARY, GYMNASIUM, MEDICAL FACILITIES

THE LIBRARY

The Library has 230,500 volumes that are accessioned; approximately 2000 periodicals and continuations are regularly received.

The Library is open daily. From Monday to Friday, inclusive, the hours 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 900 students.

GYMNASIUM AND ATHLETIC FACILITIES

Separate gymnasiums for men and women were completed in the summer of 1932; each contains 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 department of military 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 located with respect to athletic grounds and to the tennis courts.

MEDICAL FACILITIES

The University of California at Los Angeles provides on the campus for the care of emergencies, medical service, with physicians and trained nurses in charge. There are no facilities for hospital care. Students are entitled to medical consultation and advice; every entering student receives a medical examination; thereafter an examination is required each year.

LOCKERS

Lockers as available will be issued to registered students who have purchased standard locks. These are sold at \$1.00 each, and may be used by the purchaser as long as desired, or may be transferred by him to another student.

UNIVERSITY RELIGIOUS CENTER

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 their student headquarters. This common center is always open to all students for counsel and for religious activities. Here are held religious discussion groups, lectures, Bible classes, social gatherings, luncheons, dinners, and other student meetings.

The Y.W.C.A. occupies its own building, located near the eastern entrance to the campus.

PUBLIC LECTURES, CONCERTS, AND ART EXHIBITIONS

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

The musical cultivation of the University body is served by numerous concerts, free to the public as well. The University Organ, installed in 1930 as the gift of an unnamed donor, makes possible the offering of a regular series of programs, in 1934-35 comprising seventy week-day noon recitals, and thirty-eight weekly Sunday concerts, besides special concerts, and much music incidental to other gatherings. Besides the organ, there are special concerts which in 1934-35 included recitals in the fall and spring semesters by John Crown, the Bartlett-Frankel Quartet, Dr. George Liebling, and a presentation of "Baal Hamon," programs of Christmas and Easter music by the University A Cappella Choir and recitals by the Noack Quartet and by Winfried Wolf.

The Department of Fine Arts schedules a series of exhibitions of painting, design, and craft-work in its exhibition hall, each usually for two weeks. These have illustrated the work of students, local artists, national exhibitors, and occasionally old masters.

THE ASSOCIATED STUDENTS

The extra-curricular activities are administered and controlled by the Associated Students, in which all undergraduates hold membership by virtue of paying at registration the full 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; while the Council coördinates the work of these boards and administers the general business of the Association.

The athletic interests of the Associated Students are administered by the Graduate Manager of the Associated Students; the financial affairs are administered by the Assistant Comptroller of the University.

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 reduction to all other athletic contests, as well as dramatic, social, and similar events that are 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 year-book; it contains a record of the college life of the year, and is edited, managed, and financed by the students.

SUMMER SESSIONS

The Summer Session of six weeks is designed for teachers and other persons who are unable to attend the University during the fall and spring sessions, as well as for students in the regular sessions who are desirous of shortening their college courses, or who have been unable to enroll in needed subjects. Any adult of good moral character, considered by the faculty to be of sufficient maturity and intelligence to profit by attendance upon the exercises of the session, may be admitted to the Summer Session. The courses of instruction are of University grade, and credit toward University degrees may be given to students who comply with the conditions of work and examinations imposed by the instructors in charge.

The tuition fee for the Summer Session is \$35, regardless of the number of courses taken.

The Announcement of the Summer Session, issued in January of each year, may be obtained by addressing University of California at Los Angeles Summer Session, 405 Hilgard Avenue, Los Angeles.

Summer Sessions are conducted by the University in Berkeley, in Los Angeles, and in Davis. In addition, the Intersession of six weeks, immediately preceding the Summer Session, is given in Berkeley.

UNIVERSITY EXTENSION DIVISION

The Extension Division offers facilities to men and women who seek some form of higher education, but who, on account of occupation or other reason, are prevented from taking up residence at the University. In other words, the University of California, through the Extension Division, offers educational opportunities to adults living in any part of the State and engaged in the pursuit of their vocations.

The work is carried on through five departments:

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

(2) **Correspondence Instruction.** Courses are given by mail in the languages, in composition and literature, mathematics, music, drawing, education, history, political science, physics, chemistry, engineering, geography, 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 hearing them.

(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 stereopticon slides and 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, University of California, 801 Hillstreet Building, Los Angeles, or California Hall, Berkeley.

UNDERGRADUATE CURRICULA

THERE ARE ESTABLISHED at the University of California at Los Angeles: (a) The College of Letters and Science, with a curriculum leading to the degree of Bachelor of Arts and curricula of the earlier years of the College of Dentistry, of the Medical School, of the College of Commerce, of the College of Engineering, of the College of Mining, of the College of Chemistry, and of the Training School for Nurses; (b) the Teachers College, with curricula leading to the degree of Bachelor of Education; and (c) the Branch of the College of Agriculture in Southern California, with a curriculum in subtropical horticulture, leading to the degree of Bachelor of Science in Agriculture.

COLLEGE OF LETTERS AND SCIENCE

The curriculum of the College of Letters and Science is divided into three essential parts:

1. *Requirements to secure breadth of culture.* The student is asked to select courses within certain groups representing the fundamental types of intellectual endeavor. Although these requirements are limited to the lower division, the student may continue liberal studies of his own choice during the last two years.

2. *Requirements to provide for intensive study.* The student normally carries work in his major subject throughout the entire four-year course.

3. *Elective courses.* Freedom of election gives the student an opportunity to develop initiative and power. The College seeks to encourage a wise selection of courses by requirements assuring distribution and concentration.

Each student is assigned a faculty adviser to assist him in the choice of courses.

LOWER DIVISION

Junior Certificate Requirements

The work of the lower division comprises the studies of the freshman and sophomore years. The Junior Certificate 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 Junior Certificate 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 degree 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. A student whose major is not yet determined has a general adviser, under whose supervision he remains until the junior year, or until the major is determined. 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.

Certain courses taken in the high school are accepted as fulfilling in part or in whole some of the Junior Certificate 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 Junior Certificate requirements in the high school does not reduce the number of units required in the University for the junior certificate (60) or for the degree (120).

The degree requirement of 120 units is calculated on the assumption that the student will normally take 15 units of work each half-year, including the prescribed work in military science and physical education. The Junior Certificate will be granted on the completion of not less than 60 units of college work and the fulfillment of the following general and specific requirements:

(a) *General University requirements.*†

Subject A.‡

Military Science and Tactics, 6 units (men).

Physical Education, 2 units.

(b) *Foreign Language.*—At least 15 units in not more than two languages. Each year of high school work in a foreign language will be counted in satisfaction of 3 units of this requirement, without, however, reducing the total number of units required for the Junior Certificate (60) or for the degree (120). Courses given in English by a foreign language department will not be accepted in fulfillment of this requirement.

(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 part of the 60 units.

(d) *Natural Science.*—At least 12 units chosen from the following list, of which more than one unit must be in laboratory work. Courses marked with an asterisk meet the laboratory requirement.

High School Physics,* 3 units (1 high school credit).

High School Chemistry,* 3 units (1 high school credit).

† 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 87.

Astronomy 1, 11.
 Bacteriology 1,* 6.
 Biology 1, 12.
 Botany 1,* 2.*
 Chemistry 1A,* 1B,* (2A-2B),* 5,* 6A,* 6B,* 8.
 Geography 3.
 Geology 1A, 1B, 1C, 1D.
 Paleontology 1.
 Physics (1A-1B),* (1C-1D),* 1AD,* 1BC,* (2A-2B),* 4A-4B.
 Physiology (1, 2).
 Zoölogy 1A,* 1B.*

(e) *Year Courses.*—A year course in each of *three* of the following groups. This requirement may not include courses other than those specified below.

- (1) English, public speaking.
- (2) Foreign language (additional to b). This may be satisfied in whole or in part by high school Latin.
- (3) Mathematics.
- (4) Social sciences.
- (5) Philosophy.

Group 1—English and Public Speaking

English 1A-1B, 36A-36B; Public Speaking 1A-1B.

Group 2—Foreign Languages

French: any two consecutive courses from the following: A, B, C, D, CD, 5A, 5B.

German: any two consecutive courses from the following: A, B, C, D, CD, 5A, 5B, 6A-6B.

Greek 1AB-2AB, 1A-1B, or 101, 102.

Latin: two consecutive courses from the following: A, B, C, D; 5A-5B, 102, 106. Two years of high school Latin are accepted as the equivalent of a year course.

Spanish: any two consecutive courses from the following: A, B, C, D, CD, 5A-5B.

Group 3—Mathematics

A total of six units chosen from the following courses: C, F, 2, 5, 6, 8, 9A, 9B, 3A, or 3B.

Group 4—Social Sciences

Economics 1A-1B.

History 8A-8B.

Geography 1A-1B.

Political Science 3A-3B.

History 4A-4B.

Political Science 31A-31B.

History 5A-5B.

Psychology 1A-1B.

Group 5—Philosophy

Philosophy 1A-1B.
Philosophy 2A-2B.

Philosophy 3A-3B.

Summer Session Courses.—Students who desire to satisfy the specific subject requirements for the Junior Certificate 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 Junior Certificate requirements and which are designated by the same numbers with the prefix "S."

Requirements (b), (d), and (e) may be met in whole or in part by the completion of acceptable courses in the summer sessions. For a list of such courses, see the announcements of the summer sessions. The requirements in units must be met in full.

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

Honorable mention with the Junior Certificate.—Honorable mention will be granted with the Junior Certificate in accordance with the regulations on Honors, page 72.

UPPER DIVISION

Only those students who have been granted the Junior Certificate signifying their completion of lower division requirements, or who have been admitted 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 in the lower and upper divisions 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 64).
2. The student must attain a C average (one grade point per unit) in all courses in which he has received a final report on the basis of work undertaken by him in the University in and after August, 1921. See also regulations concerning negative grade points, page 41.
3. At least 50 units of college work must be completed after the receipt of the Junior Certificate.
4. At least 36 units of work must be completed in upper division courses selected from the Letters and Science List of Courses (see page 64).
5. A major of 24 upper division units in one of the following subjects must

be completed according to the rules given below under the heading "Majors for the Degree of Bachelor of Arts."

Astronomy	Geography	Mathematics
Bacteriology	Geology	Philosophy
Botany	German	Physics
Chemistry	Greek	Political Science
Economics	History	Psychology
English	Household Science	Spanish
French	Latin	Zoölogy

All students are required to take at least 6 units in their major (either 3 units each half-year or 2 units one half-year and 4 units the other) during their last or senior year.

6. The course in American Institutions 101 (or its equivalent) must be completed by all candidates for the degree.

7. All candidates for the degree are required to have been enrolled during the senior or final year of residence in the College of Letters and Science. At least the final 24 units of work must have been completed in the College of Letters and Science. It is permissible to offer a total of twelve weeks of inter-sessions, summer sessions, or post-sessions as equivalent to one half-year; but in any event the student must complete in resident instruction either the fall or spring semester of his senior year. The 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.

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

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

Students who fail in the lower division to attain an average of one grade point for each unit of work taken 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 department, together with a statement of the basis for this opinion, and the probable cause of the lack of success. In such case the Dean may permit a change in the major, or may, with the approval of the Vice-President and Provost, require the student to withdraw from the college.

10. Students who transfer to the University of California at Los Angeles from other institutions or from the University of California Extension Divi-

sion with senior standing at the time of admission, must complete at least 18 units of work in upper division courses, including at least 12 units in their major department.

MINORS

No minors are required for the degree of Bachelor of Arts, but students preparing for teaching credentials should consult the advisers of the proper departments for the minors required for credentials.

LETTERS AND SCIENCE LIST OF COURSES

At least 108 units offered for the degree of Bachelor of Arts must be in courses chosen from the Letters and Science List of Courses, and the 36 units in upper division courses 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 in the Letters and Science List of Courses.

The following list refers to the courses as given in the departmental offerings for the year 1934-35.

Agriculture. Entomology 1, 134, Plant Nutrition 110, Plant Pathology 120, Subtropical Horticulture 108.

Art. 1, 2A-2B, 4A-4B, 11, 32A-32B, 101, 121A-121B, 131A-131B, 134A-134B, 152A, 154, 161, 175, 177.

Astronomy. All undergraduate courses.

Chemistry. All undergraduate courses except 10.

Classical Languages. All undergraduate courses.

Economics. All undergraduate courses except those under the heading "Commerce—Teachers' Courses."

Education. 103, 121, 122, 150, 170.

English:

English. All undergraduate courses.

Public Speaking. All undergraduate courses.

French. All undergraduate courses.

Geography. All undergraduate courses.

Geology. All undergraduate courses.

German. All undergraduate courses.

History. All undergraduate courses except 11.

Home Economics. 1A-1B, 11A-11B, 110, 118A-118B, 120, 125, 159, 162A-162B, 164, 168, 199A-199B.

Life Sciences. All undergraduate courses in Bacteriology, Biology, Botany, Paleontology, Physiology, and Zoölogy.

Mathematics:

Mathematics. All undergraduate courses except 19.

Civil Engineering. All undergraduate courses.

Mechanic Arts. Mechanical Engineering D, 1, 2, 6.

Military Science and Tactics. All undergraduate courses.

Music. 1A-1B, 2A-2B, 10ABCD, 15A-15B, 16A-16B, 17A-17B, 35A-35B, 37A-37B, 101A-101B, 105A-105B, 110, 111A-111B, 116A-116B, 118ABCD, 119A-119B.

Philosophy. All undergraduate courses.

Physical Education for Men. 1 and 3.

Physical Education for Women. 2, 4, 44, 104, 114A-114B, 180B.

Physics. All undergraduate courses.

Political Science. All undergraduate courses.

Psychology. All undergraduate courses except 119.

Spanish. All undergraduate courses.

MAJORS FOR THE DEGREE OF BACHELOR OF ARTS

A major consists of a substantial group of coördinated upper division courses. The 24 upper division units required in the major may represent courses in one or more departments.

Majors may be offered for the degree in any of the subjects listed on page 63. The general outline of the content of these majors may be found under the respective department headings below. The details of the program must be approved by a representative of the department chosen.

Special attention is called to the courses listed under the departmental announcement as preparation for the major. In most cases it is essential that these courses be completed before upper division major work is undertaken. In any case 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 Junior Certificate will be counted toward the degree.

The 24-unit major must, in its entirety, consist (1) of courses taken *in resident instruction* at this or another university (fall, spring, and summer sessions), and (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 per unit) in all courses offered as a part of the 24-unit major.

Courses numbered in the 300 series or 400 series will not be accepted as part of the major.

See further under Regulations for Study Lists on page 36.

DEPARTMENTAL MAJORS IN THE COLLEGE OF LETTERS AND SCIENCE

ASTRONOMY

Preparation for the Major.—Required: General lower division physics (Physics 1A-1B-1C-1D, or in meritorious cases, Physics 2A-2B, or the equivalent); plane and spherical trigonometry, plane analytic geometry, and differential and integral calculus (Mathematics C, F, 5, 9A-9B, or their equivalents). Recommended: A reading knowledge of French and German.

The Major.—(1) Astronomy 103A-103B, 104A-104B, 117A-117B; (2) at least six additional upper division units in astronomy, physics, or mathematics, selected according to some definite plan approved by the Department of Astronomy.

CHEMISTRY

Preparation for the Major.—Required: Chemistry 1A-1B, which must be passed with a grade of C or better before any further work in chemistry is taken; Physics 1A-1C; trigonometry, Mathematics 8, 3A-3B, and a reading knowledge of German. Recommended: a second course in chemistry, Physics 1B-1D, Mathematics 4A-4B.

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), 110 (3), 110B (3), 111 (4). The remainder of the twenty-four required upper division units may be taken in chemistry or allied subjects in accordance with some definite plan approved by the department. A student whose work in the major subject does not average C or better will be required to withdraw from the department.

CLASSICAL LANGUAGES

Preparation for the Major.

A. Latin.—Required: Four years of high school Latin, or two years of high school Latin and courses C and D; courses 3A-3B, 5A-5B. Recommended: Greek, German, French.

B. Greek.—Required: Course 1A-1B or two years of high school Greek and course 101 or 102. Recommended: Latin, German, French.

The Major.

A. Latin.—Courses 102, 106, 117, 119, 120, 191, and History 111A-111B. Six units of upper division courses in Greek may be substituted for History 111A-111B.

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.

ECONOMICS

Preparation for the Major.—Required: Courses 1A-1B, 14A-14B, and at least one other sequence chosen from the Social Science list (Junior Certificate requirement e_4) or Philosophy 1A-1B.

The Major.—Twenty-four upper division units in economics including courses 100 and 140; or 18 upper division units in economics including courses 100 and 140, and 6 upper division units in history, political science, philosophy, geography, or mathematics, or Botany 103, the program to be approved by a departmental adviser.

Curriculum in Sociology.—Students specializing in sociology are referred to page 71 of this Catalogue.

ENGLISH

Preparation for the Major.—Courses 1A-1B and 36A-36B, or the equivalent, with an average grade of C.

Recommended: History 5A-5B; ancient and modern foreign languages. A reading knowledge of French or German is required for graduate work toward a higher degree.

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 the restricted junior course, to be taken in the junior 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.

FRENCH

Preparation for the Major.—French A, B, C, D, 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 140A-140B and 109A-109B, Sec. 2, may be applied on the major. With the permission of the department four units of the 24 may be satisfied by appropriate upper division courses in the following departments: English, German, Greek, Latin, Spanish, Italian, or philosophy.

GEOGRAPHY

Preparation for the Major.—Required: Geography 1A-1B, Geology 1C or 1A, and in addition, two of the following courses: Geography 3, 5B, 8. Recommended: Botany 1, Economics 1A-1B, one year of history, Physics 1A-1B, Political Science 3A-3B, Geology 1B, and at least one modern foreign language.

The Major.—The minimum requirement for the major is 18 or 21 units of upper division work in geography, including courses 101 and 113, plus six or three units selected, with the approval of the department, from some one of the following departments: botany, economics, geology, history, political science.

GEOLOGY

Preparation for the Major.—Required: Chemistry 1A-1B; elementary physics; Civil Engineering 1A-1B; Geology 1A-1B; Mineralogy 3A-3B; trigonometry; engineering drawing. Certain of these preparatory courses may be postponed to the upper division by permission of the department. Recommended: French and German.

The Major.—Courses 102A-102B, 103, 199A-199B, and at least 10 units of other upper division courses in the department which may include paleontology. Certain allied courses in chemistry, physics, biological sciences, and geography are recommended. The student's program is to be made out in accordance with some definite plan approved by the department.

GERMAN

Preparation for the Major.—Required: Courses A, B, C, D, and 6A-6B or their equivalents. Recommended: History 4A-4B, English 1A-1B, Philosophy 3A-3B.

The Major.—Twenty-four units in upper division courses, including courses 105A-105B, 106A-106B, 118A-118B, and at least 4 units made up from the senior courses 111A-111B and 119. Students looking forward to the secondary credential should take also 106C-106D.

HISTORY

Preparation for the Major.—Required: (1) Courses 4A-4B or 5A-5B, and (2) Course 8A-8B, or equivalent preparation for students transferring from other departments or other institutions. Recommended: Political Science 3A-3B, Political Science 31A-31B, 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 the approval of the department.

Recommended: French, German, Latin, Spanish, Italian, or a Scandinavian language. For upper division work in history a reading knowledge of French or German, or both, is highly advisable; for graduate work, indispensable.

The Major.—Twenty-four units of upper division work in history. In certain cases 2 to 6 upper division units in either political science or economics approved by the department may be counted on the major.

The major must include a year course in European history [one of the following: 111A-111B, 121A-121B, 142A-B-C-D (any two consecutive half years), 153A-153B] and a year course in American history (one of the following: 162A-162B, 171A-171B).

At least one advanced course must follow a general course in the same field, chosen within one of the following sequences: Course 121A-121B, or 142A-B-C-D (any two consecutive half years), or 153A-153B, followed by 199A-199B in European history; 162A-162B, or 171A-171B, followed by 199A-199B in American history. Only one advanced course need be taken.

HOUSEHOLD SCIENCE

Preparation for the Major.—Home Economics 11A–11B, 43A; Chemistry 1A–1B, 8; Economics 1A–1B; Physiology 1.

The Major.—Required: Eighteen units in home economics, including (1) course 162A–162B; (2) at least six units chosen from 110, 118A, 120; (3) five to eight units chosen from 118B, 125, 159, 164, 168, 199A, 199B; and six additional units to be selected with the approval of the department from upper division courses in chemistry, economics, psychology, or zoölogy.

LIFE SCIENCES

Preparation for the Major in Bacteriology.—Bacteriology 1, Chemistry 1A–1B, Zoölogy 1A–1B, Botany 2, Physics 2A–2B, French or German. Recommended: Chemistry 5, 8, 9; Zoölogy 4.

The Major in Bacteriology.—Bacteriology 103 (4 units) and Bacteriology 199A–199B (4 units) together with 16 units of upper division work in related subjects, these to be selected from the following series: Zoölogy 101, 105, 106, 107, 107C, 111, 111C, Botany 105A, 120, Chemistry 107A–107B, Home Economics 159, Plant Nutrition 110, Plant Pathology 120. Courses are to be chosen with the approval of the department.

Preparation for the Major in Botany.—Botany 1 and 2, Chemistry 1A–1B or 2A–2B, German A–B. In addition to these courses, certain phases of botanical work require Geology 1A–1B, Physics 2A–2B, Bacteriology 1, and Zoölogy 1A.

The Major in Botany.—Fifteen units of upper division botany, including taxonomy, morphology, and physiology; nine or more units in botany or in related courses—bacteriology, chemistry, geology, paleontology, and zoölogy—to be chosen with the approval of the department.

Preparation for the Major in Zoölogy.—Zoölogy 1A–1B, and high school chemistry or Chemistry 2A. French and German are recommended.

The Major in Zoölogy.—Eighteen units of upper division work in zoölogy and six units of upper division work chosen from zoölogy or from related courses in bacteriology, biochemistry, botany, entomology, genetics, microscopic anatomy, paleontology, physiology, psychology, or physical chemistry.

MATHEMATICS

Preparation for the Major.—Required: Courses C (or the equivalent), 8, 5, 6, 9A and 9B with an average grade of C, except that students who have completed two years of high school algebra and also trigonometry may be excused, upon examination, from course 8. Courses 5, 9A, 9B, 109, may be replaced, by permission, by the equivalent courses 3A, 3B, 4A, 4B respectively. Recommended: Physics, astronomy, and a reading knowledge of French and German.

The Major.—Courses 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 C in upper division courses in mathematics.

Students who are preparing to teach mathematics in high school will probably wish to elect courses 101, 102, 104, 190.

PHILOSOPHY

Preparation for the Major.—Twelve units of lower division courses in philosophy, including course 3A-3B.

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.

PHYSICS

Preparation for the Major.—Required: Physics 1A, 1B, 1C, 1D, or their equivalents (in meritorious cases Physics 2A-2B may be accepted); Chemistry 1A-1B; Mathematics C, 5, 9A-9B, or their equivalents. Recommended: a reading knowledge of German and French.

The Major.—Eleven units of upper division physics, consisting of 105, 107A, 108B, 110A; and thirteen units chosen from other upper division courses in physics, Mathematics 119, 122A-122B, 124, Chemistry 110, and (upon the recommendation of the Department of Astronomy and the approval of the Department of Physics) Astronomy 117A-117B. At least nine of these latter thirteen units shall be courses in the Department of Physics.

POLITICAL SCIENCE

Preparation for the Major.—Course 3A-3B, or its equivalent, and one of the following: Courses 31A-31B, 32, 34, Economics 1A-1B, Geography 1A-1B, History 4A-4B, History 5A-5B, or History 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 six of which may be taken in courses approved by the department in history, economics, philosophy, psychology, or geography. Major programs must be approved by the departmental adviser.

PSYCHOLOGY

Preparation for the Major.—Required: Psychology 1A-1B, Zoölogy 1A and either Zoölogy 1B or Physiology 1. Recommended: French, German, chemistry, physics, and Economics 1A-1B, or 30A-30B.

The Major.—Required: Psychology 106A, 107A, and 12 other units in upper division courses in psychology. The remaining 6 units may be chosen from other upper division courses in psychology, or from the following, subject to the approval of the department: any upper division courses in philosophy; Zoölogy 103; Education 103; Economics 186.

SPANISH

Preparation for the Major.—(1) Courses A, B, C, D, and 5A-5B or 5AB, 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 obtaining the Junior Certificate. (3) A minimum of two years of high school Latin or French 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.

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 or Latin, or may be completed from courses 101, 104, 105, 108, 109, and 110.

NOTE.—Students who have not completed course 5A-5B or 5AB in the lower division must take 101A-101B.

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 literature; (3) French, German, and Greek language and literature; (4) the history of philosophy.

SPECIAL CURRICULA

In addition to the departmental majors, the College of Letters and Science offers, subject to the requirements for the Junior Certificate and for the degree, the following curricula.

Curriculum for Medical Technicians

(with the major in Bacteriology, Chemistry, or Zoölogy)

Required:

- The pre-medical curriculum (see page 78).
- The following courses, together with such other courses as may be required for the major in bacteriology, chemistry, or zoölogy:

Bacteriology 1, General Bacteriology.....	4 units
Bacteriology 103, Advanced Bacteriology.....	4
Chemistry 9, Elementary Organic Laboratory.....	3
Chemistry 107A-107B, Biological Chemistry.....	6
(or Home Economics 159, Metabolism Methods, 3 units)	
Zoölogy 4, Microscopical Technique.....	2
Zoölogy 111, Parasitology.....	2
Zoölogy 111c, Parasitology Laboratory.....	2

Curriculum in Sociology

(with the major in Economics)

Required:

LOWER DIVISION

Economics 1A-1B, Principles of Economics.....	6 units
Economics 14A-14B, Principles of Accounting.....	6
Economics 30A-30B, Social Institutions.....	6
Psychology 1A-1B, General Psychology.....	6

Recommended:

Geography 1A-1B, Elements of Geography.....	6 units
Geography 8, Geographic Basis of Human Society.....	3
Political Science 3A-3B, American Government.....	6
Jurisprudence 18A-18B, Commercial Law.....	6
Philosophy 2A-2B, Introduction to Philosophy.....	6
Philosophy 3A-3B, History of Philosophy.....	6
Philosophy 40, Problems of Ethics and Religion.....	2
History 4A-4B, History of Modern Europe.....	6
Biology 1, Fundamentals of Biology.....	3
Biology 12, General Biology.....	3

Required:

UPPER DIVISION

Economics 100, Advanced Economic Theory.....	2
Economics 140, Statistics.....	4
(or Psychology 107A-107B, Psychological Measurement and the Use of Statistics, 6 units)	
Economics 181, Poverty and Dependency.....	2
Economics 186, Population Problems.....	3
Economics 187, Social Problems.....	2
Economics 188, Crime and Delinquency.....	2
Psychology 145A-145B, Social Psychology.....	4

Remaining units to complete the major selected from:

19 or 21 units

Economics 199, Special Problems in Economics.....	2 units
Economics 106, Economic Reform.....	3
Economics 150, Labor Economics.....	3
Home Economics 168, Family Relationships.....	2
Philosophy 121, Social and Political Philosophy.....	3
Philosophy 112, Philosophy of Religion.....	3
Philosophy 173, The Social Mind.....	2
Education 121, Philosophy of Education.....	3
Education 122, History of Education.....	3

HONORS

Honorable Mention with the Junior Certificate—

1. Honorable mention is granted with the Junior Certificate to students who attain at least an average of 2 grade points per unit undertaken.
2. The list of students who receive honorable mention with the Junior Certificate 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.

Honor Students in the Upper Division—

1. An honor list is prepared in the fall semester, and also in the spring semester if the Committee on Honors so decides, and is published in the Catalogue of Officers and Students. The department of the student's major is named in this list.

2. The honor list includes the names of:

- (1) Students who have received honorable mention with the Junior Certificate and who are in their first semester of the upper division.
- (2) Upper division students who have an average of at least 2 grade points per unit undertaken for 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), what 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 shall consider departmental recommendations and shall 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 in the case of 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 program.

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.

PRE-CHEMISTRY

In addition to the major in chemistry in the College of Letters and Science, the department offers the first two years of the curriculum of the College of Chemistry, leading to the B.S. degree. To complete this curriculum, the student must transfer to the University of California at Berkeley at the end of the

second year. Before entering upon this program, the student should consult the pre-chemistry adviser; ordinarily the student in chemistry finds more freedom in his program by enrolling in the College of Letters and Science.

Preparation.—Students who propose to enter the College of Chemistry should include in their high school programs physics (one year), chemistry (one year), mathematics, including trigonometry (three years), German (two years), and geometrical drawing (one year). Without this preparation it will be difficult or impossible to complete the required curriculum within four years.

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

PRE-COMMERCE

In addition to the major in economics in the College of Letters and Science, the Department of Economics supervises the work of the first two years of a curriculum in commerce. Students may obtain the Junior Certificate in the University of California at Los Angeles and then transfer to the College of Commerce of the University (at Berkeley) for the remaining two years of the curriculum in commerce leading to the degree Bachelor of Science. A student who holds the Junior Certificate in Commerce may transfer to a major in economics in the College of Letters and Science without serious difficulty.

The requirements for the Junior Certificate in Commerce are as follows:

Foreign languages: Students must pass an examination (designated Subject B) designed to test their ability to read one of the following languages: Greek, Latin, German, French, Spanish, Italian, Russian, Japanese, Chinese, or the Scandinavian languages. Students who complete with a satisfactory grade 12 units of French, German, Italian, Latin, or Spanish are excused from the Subject B examination. (Each year of language in the high school counts as three units on this requirement.) If the requirement has not been met by the end of the freshman year, enrollment in a course in foreign language will be required during the sophomore year.

English Composition: Subject A.† In addition a year course of 6 units chosen from the following: English 1A-1B or Public

Speaking 1A-1B..... 6 units

History or Political Science:

History 4A-4B, or History 8A-8B, or Political Science 3A-3B, or any combination of the foregoing courses..... 6

Geography:

Geography 1A-1B..... 6

† An examination in Subject A (English Composition) is required of all undergraduate entrants at the time of their first registration in the University. For further regulations concerning Subject A see pages 37 and 38 of this Catalogue.

Natural Sciences..... 9 units

Courses in physics and chemistry taken in high school may be applied toward the satisfaction of the science requirement, each year course to count for 3 units, but they may not be included in the total of 64 units.

The following college courses are accepted on this requirement:

Astronomy 1, 11	Mineralogy 3A-3B
Bacteriology 1	Paleontology 1
Biology 1	Physics 1A-1B, 1C-1D,
Botany 1, 2	2A-2B, 4A-4B
Chemistry 1A-1B	Physiology 1
Geology 1A, 1B, 1C	Zoölogy 1A-1B

Mathematics:

Elementary Algebra and Plane Geometry (matriculation requirement).

*Mathematics 2 (Mathematics of Finance)..... 3 units

Economics:

Economics 1A-1B..... 6

Military Science, Physical Education, }
Electives..... } 28

Total..... 64 units

PRE-DENTAL CURRICULA

The College of Dentistry provides the following curricula: (A) a five-year program leading to the degree of Doctor of Dental Surgery (the first year's work to be taken in the College of Letters and Science at Los Angeles or Berkeley and the remainder in the College of Dentistry at San Francisco); (B) a six-year academic and professional curriculum leading to the degree of Bachelor of Science at the end of five years (two years in the College of Letters and Science at Los Angeles or Berkeley, followed by three years in the College of Dentistry), and to the degree D.D.S. in one additional year; (C) a curriculum of two years (at San Francisco) for the training of Dental Hygienists, leading to a Certificate of Graduation. The requirements for admission to these curricula are identical with the requirements for admission to the academic departments of the University.

* Mathematics 2 requires as a prerequisite Mathematics 8 (3 units) or two years of high school algebra and plane trigonometry.

*Undergraduate Curricula***CURRICULUM A: FIVE YEARS****PROGRAM OF FIRST YEAR***(At Los Angeles or Berkeley)*

General University requirements: Subject A, Military Science, Physical Education.

Chemistry 1A-1B, 10 units.

Physics, 6 units.

English, 6 units.

Electives from the Letters and Science List of Courses (page 64).

The minimum total number of units required for admission to the College of Dentistry under this curriculum is 30. The second, third, fourth, and fifth years are devoted to work in San Francisco. See the Announcement of the College of Dentistry to be obtained from the Dean of the College of Dentistry, Parnassus Avenue and Arguello Boulevard, San Francisco.

CURRICULUM B: SIX YEARS**FIRST AND SECOND YEARS***(At Los Angeles or Berkeley)*

The combined six-year curriculum leading to the degrees of Bachelor of Science and Doctor of Dental Surgery in the College of Dentistry includes two years in the College of Letters and Science at Berkeley or Los Angeles and four years in the College of Dentistry at San Francisco.

This curriculum presupposes the completion of the following subjects in the high school: English, two years; history, one year; mathematics, two years (algebra and plane geometry); chemistry, one year; physics, one year; foreign language, two years. The language begun in the high school should be continued in the University. The Junior Certificate requirements will be more easily met if foreign language has been pursued four years in the high school.

In obtaining the Junior Certificate the following specific requirements must be met in order that the curriculum be completed in the normal time:

Chemistry 1A-1B.

Six additional units in chemistry including three units of laboratory in either organic chemistry or quantitative analysis.

Physics, 6 units.

English, 6 units.

The program of the first two years, including the above, must meet the requirements for the Junior Certificate in the College of Letters and Science (See page 59).

Information concerning the third, fourth, fifth, and sixth years in this curriculum will be found in the Announcement of the College of Dentistry. Address the Dean of the College of Dentistry, Parnassus Avenue and Arguello Boulevard, San Francisco.

PRE-ENGINEERING CURRICULA

CIVIL ENGINEERING
Freshman

	Units first semester	Units second semester
Subject A (if required).....	---	---
Military Science 1A-1B.....	1½	1½
Physical Education.....	½	½
Mathematics 8-3A.....	3	3
†Physics 1A-1B.....	3	3
Chemistry 1A-1B.....	5	5
Civil Engineering 11A-11B.....	2	2
Civil Engineering 11A-11B.....	1	1
Civil Engineering 3 (S.S.).....	---	(3)
	16	16

Sophomore

Military Science 2A-2B.....	1½	1½
Physical Education.....	½	½
Mathematics 3C-4B.....	6	3
Mechanical Engineering 2.....	---	3
Astronomy 3.....	---	1
Civil Engineering 8.....	---	2
Physics 1C-1D.....	3	3
Geology 1A.....	3	---

RAILROAD AND IRRIGATION

Mechanical Engineering 1.....	3	---
Elective.....	---	---
	*	*

SANITARY AND MUNICIPAL

Chemistry 5 or 8.....	3	---
Elective.....	---	---
	*	*

MECHANICAL, ELECTRICAL, AND § AGRICULTURAL ENGINEERING

Freshman

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
Civil Engineering 11A.....	2	---
Civil Engineering 11A.....	1	---
	16	16

* Normal total, 16 units.

† By taking Mechanical Engineering 1 (3) in the first semester, and Mathematics 3AB (6) in the second semester of the freshman year the student may complete the entire physics requirement in the sophomore year, taking Physics 1AD-1BD (6-6).

‡ 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 1A.

	Units first semester	Units second semester
Military Science 2A-2B.....	1½	1½
Physical Education.....	½	½
Mathematics 4A-4B.....	3	3
Mathematics 10A-10B.....	2	2
Physics 1C-1D.....	3	3
Civil Engineering 8.....	2	---
Mechanical Engineering 10B.....	---	2
Mechanical Engineering 2, 6.....	3	3
Electives.....	---	---
	*	*

PRE-LEGAL CURRICULUM

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 those holding an approved bachelor's degree in arts or science, which 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 Junior Certificate or its equivalent. The College of Letters and Science of the University of California at Los Angeles grants this Junior Certificate upon completion of the requirements stated on page 59.

PRE-MEDICAL CURRICULUM: THREE YEARS

It is assumed that in this curriculum the student will have completed in the high school the following subjects: English, three years; history, one year; mathematics, two years (elementary algebra and plane geometry); chemistry, one year; physics, one year; foreign language, two years. The Junior Certificate requirements will be more easily met if the foreign language has been pursued four years in the high school.

It is very important that students remember that the class entering the Medical School is at present limited, the basis of selection being scholarship during the pre-medical years; in the past there have been a great many more applicants than could be admitted. Pre-medical students who, upon the conclusion of their third or junior year, find themselves thus excluded from the Medical

* Normal total, 16 units.

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 pre-medical requirements, or include in their pre-medical 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 curriculum leading to the degree of Doctor of Medicine—the student must have attained senior standing in the pre-medical curriculum in the College of Letters and Science (see page 81).

Beginning with the academic year 1935-36, all applicants for admission to the Medical School will be required to take the Medical Aptitude Test of the Association of American Medical Colleges. This examination will be given in December, 1935, for all students applying for admission to a medical school in 1936; information concerning place and date may be secured from the Registrar.

Applications for admission to the Medical School for the academic year 1935-36 must be filed with the Registrar, University of California, Berkeley, not later than March 1, 1935. Later applications presented by resident students of the University are subject to a special fee. Applications received after April 1 will not be considered in making up the list of matriculants for the ensuing academic year.

Owing to the limitation of enrollment in the classes of the Medical School, candidates are selected on the basis of their academic standing in subjects of the pre-medical curriculum, particular emphasis being placed on the required subjects.

The number of students who may be admitted to each first-year class from institutions of any one state outside the State of California is limited to two.

The Committee on Admission 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.

An applicant for admission to the Medical School who in any year is unsuccessful in gaining admission to the School on account of an inferior scholarship record, may at once present a second application for admission. With this application there should be submitted a statement in detail concerning the studies and other employments, if any, to be undertaken in furtherance of the applicant's preparation for the work of the Medical School. Obviously, this statement should be submitted to the Committee on Admissions before the additional preparatory work is undertaken. If the applicant's plan receives the committee's approval, his name will then be listed with the names of other applicants for admission to the Medical School at the beginning of the next

succeeding university year, and his success in gaining admission will depend upon his scholarship rank as a member of the group of applicants for that year.

An accepted applicant who finds it impossible to begin his work in the Medical School in August, 1935, or a student who actually enters at that time and begins his work, but finds it necessary to withdraw in his first year, loses his place in the list of applicants and is required, in the event he desires to begin his work in a later year, to reapply with the group of applicants for that year. Applicants for admission to the Medical School are required to pass a satisfactory medical examination prior to the time of first registration 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, the requirements of which shall have been, at the time of granting such diploma, in no particular less than those prescribed by the laws of the State, and which shall have received the approval of the Board of Medical Examiners that year. The requirements for matriculation in the University of California Medical School, as above stated, cover also the requirements of the Association of American Medical Colleges, provided that 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 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:

PRE-MEDICAL 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 Science (for men).....	1½	1½
Physical Education.....	½	½
Chemistry 1A-1B.....	5	5
¹ English 1A-1B.....	3	3
² Foreign language.....	5	3 or 5
Electives as necessary to make up units.....	----	----
	16	16

¹ English 1A-1B. If the student fails to pass the examination in Subject A it will be necessary to postpone English 1A-1B until he has completed the course in Subject A, for which no units are allowed. The student is advised to substitute in the interim one of the year courses which are required for the Junior Certificate under requirement (e) in the place of English 1A-1B.

² Foreign Language. The Medical School requirement is 10 units of credit in either French or German, and the Junior Certificate 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.

	Units first semester	Units second semester
<i>Second Year</i>		
Military Science (for men).....	1½	1½
Physical Education.....	½	½
Zoölogy 1A-1B.....	5	5
Year course (Requirement "e" for the Junior Certificate).....	3	3
Year course (Requirement "e" for the Junior Certificate).....	3	3
Chemistry 8.....	3	---
Chemistry 5.....	---	3
	16	16

Third Year

American Institutions 101.....	2	---
Physics 2A-2B.....	4	4
Electives.....	10	12
	16	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 Science (for men).....	1½	1½
Physical Education.....	½	½
Chemistry 1A-1B.....	5	5
¹ English 1A-1B.....	3	3
Year course (Requirement "e" for the Junior Certificate).....	3	3
Year course (Requirement "e" for the Junior Certificate).....	3	3
	16	16

Second Year

Military Science (for men).....	1½	1½
Physical Education.....	½	½
Zoölogy 1A-1B.....	5	5
Chemistry 8.....	3	---
Chemistry 5.....	---	3
Electives (Foreign language if necessary to complete 15 units for Junior Certificate).....	6	6
	16	16

Third Year

American Institutions 101.....	2	---
Physics 2A-2B.....	4	4
Electives.....	10	12
	16	16

¹ See footnote on page 80.

PRE-MINING

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 in Mining 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.

	Units first semester	Units second semester
<i>Freshman</i>		
Subject A (if required).....	---	---
Military Science 1A-1B.....	1½	1½
Physical Education.....	½	½
Mathematics 8-3A.....	3	3
Chemistry 1A-1B.....	5	5
Civil Engineering 1LA-1LB.....	2	2
Civil Engineering 1FA-1FB.....	1	1
§ Mining 5A-5B.....	(1)	(1)
† Physics 1A-1B.....	3	3
Civil Engineering 3 (s.s.).....	---	(3)
	—	—
	16	16
<i>Sophomore</i>		
Military Science 2A-2B.....	1½	1½
Physical Education.....	½	½
Mathematics 3C-4B.....	6	3
Physics 1C-1D.....	3	3
Mineralogy 3A-3B.....	3	3
Geology 1A.....	3	---
MINING		
Metallurgy 2.....	---	3
Mining 1A-1B.....	(3)	---
Mechanical Engineering 1.....	3	---
	—	—
	*	*
METALLURGY		
Chemistry 6A-6B.....	3	3
Mechanical Engineering 1.....	3	---
	—	—
	*	*

* Normal total, 18 units.

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

† See footnote under Civil Engineering, p. 77.

|| Mining 1A-1B and Metallurgy 2 are not offered at the University of California at Los Angeles. It is suggested that Chemistry 5 be taken in lieu of Metallurgy 2.

ECONOMIC GEOLOGY		Units first semester	Units second semester
Chemistry 6A-6B.....		3	3
Paleontology 1.....		2	---
		—	—
		*	*
PETROLEUM ENGINEERING			
Chemistry 5.....		3	---
Mechanical Engineering 1.....		3	---
Mechanical Engineering 2.....		---	3
		—	—
		*	*

CURRICULA IN NURSING

The Training School for Nurses, in connection with the University Hospital at San Francisco, offers a five-year curriculum leading to the degree of Bachelor of Science in addition to the Certificate of Graduation from the School. Normally the work of the first two years is taken in the College of Letters and Science at Los Angeles or Berkeley, two of the remaining three years in the University of California Training School for Nurses in San Francisco, with the fifth and eighth semesters in the College of Letters and Science, Berkeley. For further information concerning this curriculum and concerning a three-year curriculum leading to the Certificate of Graduation alone, see the Announcement of the University of California Training School for Nurses, Parnassus and Third avenues, San Francisco.

Registered nurses may receive the degree Bachelor of Science in three years upon completing with an average grade of not less than "C" the work for the Junior Certificate in the College of Letters and Science at Los Angeles or at Berkeley. The program at Los Angeles is suggested below; for definite Junior Certificate requirements see page 59.

See also page 85 of this Catalogue concerning curricula in Public Health, Public Health Nursing, and Nursing Education.

CURRICULUM AT LOS ANGELES

(Combined College and Nursing Course)

Suggested program for the first two years in the College of Letters and Science.

FIRST YEAR	Units	SECOND YEAR	Units
Subject A (see p. 37).....	Physical Education.....	1 1/2 1 1/2
Physical Education.....	1 1/2 1 1/2	Physiology 1, 2.....	3 2
Chemistry 1A.....	5	Economics 1A-1B.....	3 3
Economics 1A-1B.....	3 3	Psychology 1A-1B.....	3 3
†Electives.....	Zoology 35..... 3
		Bacteriology 1.....	4
		†Electives.....
	—		—
	*		*

* Normal total, 16 units.

† Suggested electives for the completion of the Junior Certificate: First year: German A, B, or French A, B; English 1A-1B, or Public Speaking 1A-1B. Second year: Philosophy 1A-1B.

PRE-OPTOMETRY

The University offers a four-year program with a major in physics-optometry, leading to the degree of Bachelor of Arts and the Certificate in Optometry. The first two years may be taken at Los Angeles; the last two must be taken at Berkeley. The following curriculum outline should be followed, with such choice of electives as will meet the requirement for the Junior Certificate in the College of Letters and Science (see page 59).

	Units first semester	Units second semester
<i>First Year</i>		
Subject A (see page 37).		
Military Science 1A-1B.....	1½ or 0	1½ or 0
Physical Education.....	½	½
Chemistry 1A-1B.....	5	5
English 1A-1B.....	3	3
Physiology 1.....	3	3
Physics 2A-2B.....	3	3
Electives.....	---	---
Normal total.....	16	16
<i>Second Year</i>		
Military Science 2A-2B.....	1½ or 0	1½ or 0
Physical Education.....	½	½
Mathematics 5.....	3	---
Psychology 1A.....	---	3
Physics 3A-3B.....	1	1
Physiology 2.....	2	---
Foreign Language.....	5	5
Electives.....	---	---
Normal total.....	16	16

PROFESSIONAL CURRICULA IN OTHER DIVISIONS OF THE UNIVERSITY

Architecture.—The School of Architecture in Berkeley offers a curriculum of two years subsequent to the bachelor's degree, leading to the degree of Graduate in Architecture. The College of Letters and Science in Berkeley also offers a four-year program leading to the degree of Bachelor of Arts; students desiring this program may take only academic courses in the College of Letters and Science of the University of California at Los Angeles, and are consequently 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 bachelor's degree may be obtained in the College of Letters and Science of the University of California at Los Angeles.

Pharmacy.—Two curricula in pharmacy are available; one of three years leading to the Certificate of Graduation in Pharmacy is given in the College of Pharmacy in San Francisco; a four-year curriculum leads to the degree Bachelor of Science in Pharmacy. The first two years of this latter curriculum are given in Berkeley (one year may be taken at Los Angeles); the last two years are given in San Francisco.

Public Health.—In Berkeley a program of seven years is offered, 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. However, in the case of students of medicine in the University of California, a year of the Public Health Curriculum will be accepted in lieu of the fifth year of the Medical Curriculum, reducing the time required for the degree of Doctor of Public Health to six years.

Public Health Nursing.—The College of Letters and Science in Berkeley offers to regular students* of the College who have been certified as registered nurses, a course of one and one-half years in the Department of Hygiene, leading to the Certificate in Public Health Nursing.

Nursing Education.—The College of Letters and Science in Berkeley offers to regular students* of the College who have been graduated from approved schools of nursing, a course of one and one-half years in the Department of Hygiene, leading to the Certificate in Nursing Education.

Social Service.—The College of Letters and Science in Berkeley offers a one-year program subsequent to the bachelor's degree, leading to a Certificate of Completion of the Curriculum in Social Service in the Department of Economics. The bachelor's degree may be obtained in the College of Letters and Science of the University of California at Los Angeles. Students intending to enter the curriculum should communicate with the Committee on the Curriculum in Social Service, Department of Economics, Berkeley, at an early period in the undergraduate program to make sure of adequate preparation.

JOURNALISM

The University of California at Los Angeles does not offer a curriculum in journalism; a student who desires to prepare himself for this field of endeavor 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.

* In and after August, 1937, the Junior Certificate of the College of Letters and Science will be required for admission to the curricula in Public Health Nursing and Nursing Education.

THE TEACHERS COLLEGE

THE TEACHERS COLLEGE is organized on the basis of four years of combined academic and professional work leading to the degree of Bachelor of Education and one or more of the following teaching credentials:

1. The Kindergarten-Primary Credential, valid in the kindergarten and grades one, two, and three of the elementary school.
2. The Elementary Credential, valid in the eight grades of the elementary school.
3. The Junior High Credential, valid in the junior high school.
4. The Secondary Special Credential of the following types: Art, Commerce, Home Making, Industrial Arts Education, Music, and Physical Education. These credentials are valid in the high school, junior high school, and elementary school.

Certificates of Completion leading to the General Secondary and Junior College Credentials are granted to students enrolled for graduate study who complete the requirements as given on pages 91 to 93.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF EDUCATION

- I. Completion of 120 units of credit with corresponding grade points.
- II. Presentation of a certificate of physical fitness from the Medical Examiners of the University of California at Los Angeles.
- III. Recommendation of the major department and of the Department of Education.
- IV. Satisfactory completion of the following program:
 1. Lower Division.

The work of the freshman and sophomore years leading to the Junior Certificate of the Teachers College ordinarily comprises 64 units of university credit. The Junior Certificate, however, is awarded on completion of a minimum of 60 units of university credit, including:

- (a) General University requirements:
 - Subject A.
 - Military Science and Tactics, 6 units (men).
 - Physical Education, 2 units.
- (b) Foreign Language. At least 15 units in not more than two languages. Each year of high school work in a foreign language will count in satisfaction of 3 units of this requirement but will not reduce the number of units required for the Junior Certificate or the degree.

Requirements for the Degree of Bachelor of Education 87

- (c) **Matriculation Mathematics.** Elementary algebra and geometry. Instruction in these subjects is not given in the fall or spring sessions of the University.
- (d) **Natural Science.** Twelve units chosen from the following list, at least 2 units of which must include laboratory work. (Courses marked with an asterisk meet the laboratory requirement.) Physics and chemistry taken in the high school will each count in satisfaction of 3 units of this requirement but will not reduce the number of units for the Junior Certificate or the degree.

High School Physics.*

High School Chemistry.*

Astronomy 1, 11.

Bacteriology 1.*

Biology 1, 12.

Botany 1,* 2.*

Chemistry 1A,* 1B,* 2A,* 2B,* 5,* 6A,* 6B,* 8.

Geology 1A, 1B, 1C, 2C.

Geography 3.

Paleontology 1.

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

Physiology 1,* 2.*

Zoölogy 1A,* 1B.*

(e₁) English 1A-1B or Public Speaking 1A-1B or 2A-2B.

(e₂) Psychology 1A-1B.

(e₃) A year course chosen from the following:

Economics 1A-1B.

Geography 1A-1B.

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

Political Science 3A-3B.

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

Mathematics—Six units chosen from the following: C, F, 2, 5, 6, 8, 9A, 9B, 3A or 3B. High school plane trigonometry and plane analytic geometry will be accepted in partial satisfaction of this requirement, each to count 2 units. This will not reduce the number of units required for the Junior Certificate or the degree.

2. Upper Division.

- (a) The Junior Certificate is required as a prerequisite to registration in the upper division, except for students who have been granted 60 or more units of advanced standing.
- (b) The student must complete at least 50 units of credit after qualifying for the Junior Certificate, of which a minimum of 36 units must consist of upper division courses.

- (c) The final year of residence,* including at least 24 units of credit must be completed in the Teachers College. Courses taken in the summer sessions may be offered in satisfaction of 12 units of this requirement.
- (d) The course in American Institutions 101, or its equivalent, is required of all candidates for the degree of Bachelor of Education.
- (e) A major, consisting of from 24 to 30 units of approved upper division courses, must be completed in one of the following departments:
 Art, Commerce, Education, Home Economics, Mechanic Arts, Music, Physical Education.

The major in education is designed primarily to prepare students for teaching in the elementary schools of the state with specialization for either the kindergarten and primary grades, or for the upper grades and the junior high school. Ordinarily the student pursuing a major in education may so plan his program as to qualify for either the elementary and kindergarten-primary credentials or the elementary and junior high school credentials.

Majors in art, commerce, home economics, mechanic arts, music, and physical education prepare the student to teach these subjects in the secondary schools, and lead to the special secondary credential. By careful planning it is possible for major students in these fields to qualify for the junior high school credential. Requirements for both special secondary and elementary credentials cannot ordinarily be met within the limits of the four-year course.

The student must attain an average scholarship of "C" grade or better for all courses comprising the major.

- (f) In addition to the major, two minors are required. A minor is defined as from 12 to 18 units of coördinated courses in any University department. Students majoring in art, commerce, home economics, mechanic arts, music, and physical education must complete as one minor 18 units of approved courses in education. The requirements for minors appear under the respective departments in the latter part of this Catalogue.

MAJORS IN THE TEACHERS COLLEGE

ART

Preparation for the Major.—Courses 1, 2A-2B, 4A-4B, 8A-8B, 9, 12, 32A.

The Major, leading to the Secondary Special Teaching Credential in Art.—Twenty-five units of upper division courses; this program may be taken in one of three specified lines, and must be arranged with a departmental adviser.

* In case the candidate for a teaching credential is the holder of a bachelor's degree he must complete at least one semester of not less than 15 units in resident instruction in the Teachers College. Ordinarily credentials are not obtainable from this institution on the basis of summer sessions alone.

The Minor in Education.—Education 103, 170; Directed Teaching, 6–10 units; Art 160A–160B, 180.

COMMERCE

Preparation for the Major.—Economics 1A–1B, 14A–14B, 15A, or 15B; Commerce 16, 17, 18A–18B; Political Science 18A–18B; Geography 5A–5B; History 45 or 46.

The Major, leading to the Secondary Special Credential in Commerce.—Twenty-four units of advanced work approved by the department, including Economics 135 and at least one of the following: Economics 123, 173, 195.

The Minor in Education.—Education 103, 170; Directed Teaching, 10 units; Commerce 197, 198.

EDUCATION

Preparation for the Major.—Biology 1, 12; Geography 1A–1B; Psychology 1A–1B.

The Major.—Eighteen units of upper division courses, including:

Education 100 or Psychology 112

Education 101 or Psychology 119

Education 102 or Psychology 107A

Education 103 or 121 or 122

Education 104 or 105* or 138 or 150

Electives in education to total 18 units (Psychology 110 may be offered as an elective in education).

NOTE: Requirements for teaching credentials will be found on pages 91–93.

HOME ECONOMICS

Preparation for the Major.—Courses 1A–1B, 2, 11A–11B, 43A; Art 22; Chemistry 2A–2B, 10; Physiology 1; Economics 1A.

The Major, leading to the Secondary Special Credential in Home Making.—Courses 108, 110, 118A, 120, 162A–162B, 164, 168, and 5 units of advanced home economics approved by the department.

The Minor in Education.—Education 103, 170; Directed Teaching, 6–10 units; Home Economics 147A–147B.

MECHANIC ARTS

Preparation for the Major.—Mechanical Engineering D; Mechanic Arts 11, 14, 15A–15B, 16, 17A, 18A, 21; recommended, mathematics and physics.

The Major, leading to the Secondary Special Credential in Industrial Arts Education.—Thirty units of work approved by the department; of this twenty-four units must be in upper division courses.

* Required for the Kindergarten-Primary Credential.

The Minor in Education.—Education 103, 160, 164, 170; Directed Teaching, 6–10 units; Mechanic Arts 190.

Secondary Special Credential in Vocational Arts.—A two-year curriculum leading to the secondary special teaching credential in vocational arts is maintained under the provisions of the Smith-Hughes Act. This course is open to experienced journeymen workmen who have had two years of schooling beyond the eighth grade. All applications must be approved by the Assistant Director of the Division of Vocational Education. A statement of the requirements for the Limited Credential in Industrial Arts Education will be found in Bulletin H-2 published by the State Board of Education.

MUSIC

Preparation for the Major.—Courses 1A–1B, 2A–2B, 7A–7B, 10A–10B, 35A–35B.

The Major, leading to the Secondary Special Credential in Music.—Courses 101A–101B, 105A–105B, 108A–108B, 109, 111A–111B, 114A–114B.

The Minor in Education.—Education 103, 170; Directed Teaching, 6–10 units; Music 112A–112B.

PHYSICAL EDUCATION FOR MEN

Preparation for the Major.—High school chemistry or Chemistry 2A or Zoölogy 1A; Physiology 1; Biology 1 (if Zoölogy 1A is not taken); Zoölogy 35; Physical Education 1, 3 (2 units), 5, 29A–B–C–D.

The Major, leading to the Secondary Special Credential in Physical Education.—Courses †120, 130A–B–C–D, 131, 140, 149, 156A–156B, 182, †190, †192A–192B.

The Minor in Education.—Education 103, 170; Directed Teaching, 6–10 units, Physical Education 154, 155A–155B.

PHYSICAL EDUCATION FOR WOMEN

Preparation for the Major.—Courses 30A–30B, 32A–32B, 33A–33B, 35, 42A–42B, 43A–43B, and one of the following sequences: (1) Chemistry 2A–2B, or Physics 4A–4B; Biology 1; Zoölogy 35; Physiology 1; Home Economics 32; (2) Zoölogy 1A–1B, 106; Physiology 1; Home Economics 32.

The Major, leading to the Secondary Special Credential in Physical Education.—Physical Education 120, †140, 149, 150A–150B, 180A–180B, 181A–181B, 182, 183, 190, 192A–192B, 199.

The Minor in Education.—Education 103, 170; Directed Teaching 6–10 units; Physical Education 121A–121B.

† Courses so marked are listed with the Department of Physical Education for Women.

‡ This course is offered under the Department of Physical Education for Men.

HONORS

Honorable mention with the Junior Certificate and honors with the degree of Bachelor of Education are awarded on the same basis as in the College of Letters and Science. (See pages 72, 73.)

REQUIREMENTS FOR TEACHING CREDENTIALS

1. *The Elementary Credential*

- a. The degree of Bachelor of Education with a major in education.
- b. Completion of Art 22, 330; Mathematics 19; Music 360A-360B; Physical Education 111A-111B. History 39 is recommended but not required.
- c. Education 390 and Supervised Teaching E190A-E190B.

2. *The Kindergarten-Primary Credential*

- a. The degree of Bachelor of Education with a major in education;
- b. Completion of Art 22, 330; Education 105, 306; Music 360A-360B; Physical Education 111A-111B.
- c. Examination in piano.*
- d. Education 390 and Supervised Teaching K190A-K190B.

3. *The Junior High School Credential*

This credential is awarded only in conjunction with the Elementary or Special Secondary credentials. The requirements are the completion of a major and a minor, or two minors, in fields taught in the junior high school, and eighteen units in education including Education 170 and supervised teaching at the junior high school level in one of the general subject fields.‡

4. *The Special Secondary Credentials*

These credentials are awarded upon the completion of all requirements for the degree of Bachelor of Education with majors in art, commerce, home economics, mechanic arts, music, or physical education, provided that the minor in education is satisfactorily completed.

The courses comprising these majors are listed on pages 88 to 90.

5. *The General Secondary Credential*

The Certificate of Completion leading to the General Secondary Credential is granted to students who qualify for admission to graduate study, under the following conditions:

* Candidates for the Kindergarten-Primary Credential must pass an examination in piano before the Junior Certificate is awarded. (The student must show capacity to play such music as "Songs for the Little Child" by Kohlsaat and Baker, and music for rhythmic interpretation of the type in Robinson's "School Rhythms.")

‡ Teaching for the special type credentials is not accepted for this requirement.

- a. Completion of 24 units of resident study subsequent to the receipt of the bachelor's degree; residence of at least one regular half-year is required. The Certificate of Completion can not be obtained solely on the basis of summer session work or advanced standing.
- b. Eighteen* units of courses in education, including
1. Education 170
 2. Six units chosen from Education 100, 103, 121, 122, 150, Psychology 110
 3. Education 320A, 320B, Supervised Teaching (restricted to graduate students)
 4. Electives to total 18 units. Upper division courses in education, or departmental courses for secondary teachers in the 300 series.
- c. Completion of a teaching major approved by the department of not less than 24 units of upper division and graduate courses in one of the following fields:
- | | | |
|-------------|-----------|-------------------|
| Agriculture | French | Mathematics |
| Botany | Geography | Physics |
| Chemistry | Geology | Political Science |
| Economics | History | Spanish |
| English | Latin | Zoölogy |
- d. Completion of a teaching minor (not less than 18 units, of which 9 to 12 must be upper division or graduate courses) in any of the foregoing fields, or in art, astronomy, German, Greek, home economics, mechanic arts, music, physical education, public speaking. A minor in a modern foreign language must include 12 units of upper division courses.
- e. A scholastic average of 1.75 must be maintained for all work undertaken after receipt of the bachelor's degree; the same requirement holds for the courses comprising the teaching major, including the upper division courses taken before receipt of the bachelor's degree. A grade of C or better must be presented in Education 320A and 320B.
- f. At least 6 units of graduate courses (200 series) must be completed in the fields of the teaching major and (or) minor.
- g. A knowledge of the United States Constitution as attested by examination or an approved course.
- h. Certificate of fitness by the medical authorities of the University of California at Los Angeles.
- i. Evidence of a satisfactory command of spoken English.

* Not less than six units to be completed subsequent to the receipt of the bachelor's degree.

6. The Junior College Credential

The Certificate of Completion leading to the Junior College Credential is awarded to students who hold, or who have completed all requirements for, the master's (or doctor's) degree, upon completion of the following requirements:

- a. Residence in the University of California at Los Angeles for at least one regular half-year. The Certificate of Completion can not be obtained solely upon the basis of summer session work, or of advanced standing.
- b. Ten units of courses in education approved by the Department of Education, of which at least six units must be completed subsequent to the receipt of the bachelor's degree. Education 179 and 320A-320B are required. Education 320A-320B is restricted to graduate students.
- c. Completion of a graduate major (not less than 12 units of graduate courses or not less than 8 units of graduate courses with a thesis) in a field represented in the junior college. Majors may be offered at the University of California at Los Angeles in the following fields:

Agriculture	Geography	Philosophy
Botany	Geology	Physics
Chemistry	History	Political Science
Economics	Latin	Psychology
English	Mathematics	Spanish
French	Microbiology	Zoölogy
- d. Completion of a teaching minor (not less than 18 units of which 9 to 12 are upper division or graduate courses) in any of the foregoing fields or in art, astronomy, German, Greek, home economics, mechanic arts, music, physical education, public speaking. A minor in a modern foreign language must include 12 units of upper division courses.
- e. A knowledge of the United States Constitution as attested by examination or an approved course.
- f. Certificate of fitness by the medical authorities of the University of California.
- g. Evidence of a satisfactory command of spoken English.

THE BRANCH OF THE COLLEGE OF AGRICULTURE IN SOUTHERN CALIFORNIA—LOS ANGELES

THE COLLEGE OF AGRICULTURE of the University of California, through its Branch in southern California, offers at Los Angeles the Plant Science curriculum and the major in Subtropical Horticulture leading to the Bachelor of Science degree, and graduate work in this field leading to the degree Master of Science. Students electing other majors in this curriculum may spend the freshman and sophomore years at Los Angeles and then transfer to the campus where their major work is offered.

Students electing other curricula in the College of Agriculture—Animal Science, Agricultural Economics, Entomology and Parasitology, Forestry—and those electing the curriculum in Agricultural Engineering may spend the first two years at Los Angeles and then transfer to Berkeley or Davis without serious loss of time. Those students intending 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 Subtropical Horticulture are requested to consult the Prospectus of the College of Agriculture and the adviser in Agriculture at Los Angeles.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN AGRICULTURE

PLANT SCIENCE CURRICULUM, MAJOR IN SUBTROPICAL HORTICULTURE

The requirements stated below are obligatory for all students entering the College of Agriculture.

1. Four years of residence. (The senior year must be spent in this University.)

2. One hundred and thirty semester units of university work in addition to matriculation and in addition to Subject A.* These 130 units must be chosen in accordance with the provisions set forth hereinafter. In addition to the 130 units the student must have attained at least as many grade points or quality units as there may be time units or quantity units in the credit value of all courses undertaken by him in the University of California. For further information concerning grade point requirements see page 41.

* An examination in Subject A (English Composition) is required of all undergraduate intrants at the time of their first registration in the University. For further regulations concerning Subject A, see page 37.

3. Including matriculation,* all students must have completed—ordinarily before the end of the sophomore year—mathematics, including trigonometry, 9 units.

4. Among the 64 or more units normally taken in the junior and senior years, there must be 36 units in upper division courses, i.e., those numbered 100 to 199.

5. In addition to requirement 3 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
Geology	3
Genetics	4
Plant Pathology	4
Plant Nutrition	4
Entomology	4
Zoölogy	4
American Institutions	2
Military and Physical Education.....	8
	—
	77

(b) In addition students must take a major with the minimum of twelve (12) units of upper division work in Subtropical Horticulture.

(c) A summer course may be prescribed in addition to the above as a major requirement.

FRESHMAN AND SOPHOMORE YEARS

During the freshman and sophomore years the following schedule will normally be followed. For example of programs in other curricula of the College of Agriculture students should consult the prospectus of the College of Agriculture and the adviser for agricultural students at Los Angeles.

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

* One year of high school work in a given subject is here counted as the equivalent of three units of university work.

EXAMPLE OF PROGRAM—PLANT SCIENCE CURRICULUM

	Units first semester	Units second semester
<i>Freshman Year</i>		
Military Science	1½	1½
Physical Education	½	½
Botany 1, 2.....	4	4
Chemistry 1A-1B	5	5
Physics 4A-4B	3	3
Economics 1A	3	---
Geology 1A	---	3
	17	17
<i>Sophomore Year</i>		
Military Science	1½	1½
Physical Education	½	½
Botany 109, 101.....	3	3
Chemistry 5	3	---
Chemistry 8.....	3	---
Zoölogy 1A.....	5	---
Bacteriology 1	---	4
Economics 1B	---	3
Entomology 1	---	4
Subtropical Horticulture 2.....	---	3
Elective	2 or 3	---
	18 or 19	19

There is no Junior Certificate 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 during 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 1, Zoölogy 100A (Genetics), Plant Nutrition 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. For elective courses in other departments the latter pages of this Catalogue should be consulted.

Students should consult the major adviser relative to the 12 units required for the major in Subtropical Horticulture. Certain courses are required—100, 101 and 104—while others are optional.

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 adviser 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* (i.e., those who have completed 64 units in their freshman and sophomore years).

1. Honorable mention shall be granted with junior standing to students who attain at least an average of 2 grade points per unit undertaken. Such students shall remain in honors status unless their average for all work at the end of any semester falls below 2 grade points per unit undertaken.
2. The list of students who receive Honorable Mention shall be 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 shall be published in the Catalogue of Officers and Students.

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

1. Honors shall be 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, display 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 shall be published in the Commencement program.

GRADUATE STUDY

REQUIREMENTS FOR THE MASTER'S DEGREE

Preliminary Preparation. The preliminary training for the candidate for the degree of Master of Arts or of Master of Science should be substantially the equivalent of that represented by the corresponding bachelor's degree of the University of California. A bachelor's degree in the University of California represents eight years of systematic high school and collegiate work distributed according to the requirements of the University for the particular college or course in which the student takes his degree. If the candidate's undergraduate course is found to be in any serious respect deficient as to breadth or fundamental training, or fails to provide a proper foundation for advanced work in the department or departments of the candidate's choice, it may be necessary for him to devote some time to specified undergraduate courses before his application for admission to graduate status can receive favorable consideration.

The Degree. The degree Master of Arts is awarded to students meeting the prescribed requirements in any of the major subjects of graduate study at the University of California at Los Angeles with the exception of agriculture; in this field the degree of Master of Science is awarded. However, students in mathematics or science who in addition to requirements for the Master's degree have completed those of the degree Bachelor of Science, may be awarded the degree Master of Science.

Major Fields. The major fields for graduate study for 1935-36 are

Agriculture (Subtropical Horticulture)	Geography	Physics
Botany	Geology	Political Science
Chemistry	History	Psychology
Economics	Latin	Spanish
Education	Mathematics	Zoology.
English	Microbiology	
French	Philosophy	

Residence. The minimum period of academic residence required is one year, of which at least one half-year shall be in regular session at Los Angeles. It may be met in part by residence in summer sessions of the University (each to count as one-fourth of a year) or in the Graduate Division at Berkeley. A student is not regarded as a student in residence unless he is actually attending regularly authorized university exercises amounting to at least 4 units of upper division or graduate grade during a regular session, or of at least 2

units of similar work during a summer session. Regardless of the total credit obtained in summer sessions, not less than 4 units of the required graduate courses must be earned in a regular half-year at Los Angeles. While ordinarily all of the work for the master's degree is expected to be done in residence, graduates of this university or other approved candidates may complete a part of their work in absence, subject to the approval of the Graduate Council and the regulations relating to study in absence, and subject to the minimum residence requirement of one year.

Application for Advancement to Candidacy. Advancement to candidacy shall take place not later than one semester prior to the date of completion of requirements for the degree. Attention of students is called to the fact that admission to candidacy is not automatic. It requires a formal application distinct from registration. A date, one week after the filing of study lists, is set in each semester as the final date for application for candidacy by persons hoping to qualify for the degree at the close of that semester.

Amount and Distribution of Work. A student will pursue one of the following plans for the fulfillment of the requirements for the master's degree, at the option of the department of his major field.

Plan I: Thesis Plan. There are required 20 semester units and in addition a thesis. The courses must be graduate courses or upper division undergraduate courses. At least 8 of the 20 units must be 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 ordinarily amount to not less than half of the entire work presented for the degree. Provided the foregoing general and the special departmental requirements be met, the work may be distributed among any courses in the 100 or 200 series. The student is subject to guidance by the major department respecting the distribution of his work among the departments. The major department may in addition require such examinations as may be necessary to satisfy it as to the candidate's knowledge in the field of his work.

Plan II: Comprehensive Examination Plan. There are required 24 units of upper division and graduate courses, of which at least 12 units must be in strictly graduate courses in the major subject. The student is subject to guidance by the major department respecting the distribution of his work among the departments.

A comprehensive final examination in the major subject, to be of such nature and to be conducted in such manner as may be determined by the department concerned, is required of every candidate.

Grade Requirements. Only courses in which the student is assigned grades "A," "B," or "C" may be counted in satisfaction of the requirements for the master's degree. Furthermore, the student must maintain an average of B (2 grade points per unit of work undertaken) in these courses and also in all

courses elected at the University subsequent to the Bachelor's degree. Three points per unit are assigned to grade "A"; two points to grade "B"; one point to Grade "C"; none to grade "D"; negative one to grades "E" and "F."

Foreign Language. A reading knowledge of a modern foreign language (other than that of the major subject, if a foreign language) is required of all candidates for the master's degree. The department of the candidate's major must approve the language selected, and conducts the examination.

Acceptance of Work Completed in Graduate Status Elsewhere. The following regulation governs the acceptance of work completed in graduate status at other institutions: It is required that the entire program for the master's degree be completed in residence at this institution. In exceptional cases, a limited amount of credit obtained in regular sessions of institutions of high standard may be accepted toward fulfilling the minimum unit requirements for the master's degree. In no case, however, will more than 4 units be allowed, and then only in cases of superior scholarship. Where such allowance is made it cannot be used to reduce the minimum residence requirement or the minimum requirement in strictly graduate (200) courses.

Summer Session Work for the Master's Degree. Students who plan to offer Summer Session courses in partial fulfillment of the requirements for the master's degree should be careful to select only courses especially designated as acceptable for this purpose. Not all the upper division courses given in the Summer Session may be offered in satisfaction of the requirements for the master's degree. A list of acceptable courses is published annually for the use of students in the Summer Session. The maximum study list of graduate work permitted in the Summer Session is four units. The complete requirement of graduate courses can not be met in summer sessions alone; at least one regular half-year is necessary.

In planning a program for a higher degree it must be borne in mind that the members of the regular staff are not all on duty in the summer months. Admission to candidacy does not constitute a claim upon the vacation time of members of the faculty for direction of thesis work.

Theses. Specific requirements concerning theses will be found in the Announcement of Graduate Study at the University of California at Los Angeles.

DEFINITION OF ACADEMIC RESIDENCE FOR GRADUATE STUDENTS

Every graduate student must register for, attend, and complete upper division courses (courses in the 100 series) or graduate courses (courses in the 200 series) amounting to at least 4 units per week for each half-year, in order to satisfy the minimum residence requirement in candidacy for any higher degree or certificate issued by the University.

ANNOUNCEMENT OF COURSES

CLASSIFICATION AND NUMBERING OF COURSES

I. Undergraduate Courses.

1. *Lower Division Courses* (numbered 1-99, or indicated by letters if in subjects usually given in a high school). A lower division course is designed primarily for freshmen and sophomores and does not count as upper division credit.

2. *Upper Division Courses* (numbered 100-199). An upper division course is an advanced course in a department of study that has been pursued in the lower division, or an elementary course in a subject of such difficulty as to require the maturity of upper division students.

II. *Professional Courses* (numbered 300-399). The designation 300-399 denotes highly specialized courses dealing with methods of teaching specific subjects. Such courses may not be offered in partial fulfillment of the requirements for the major in Education, but are acceptable toward academic degrees within the limitations prescribed by the various colleges.

III. *Graduate Courses* (numbered 200-299). Graduate courses are open only to students who have been admitted to graduate status. As a condition for enrollment in a graduate course the student must submit to the instructor in charge of the course satisfactory evidence of preparation for the work proposed. Adequate preparation consists normally in the completion of at least 12 units of upper division work basic to the subject of the course, irrespective of the department in which such basic work has been completed.

A course designated by a double number (i.e., Economics 1A-1B) is continued through two successive half-years. At the end of each half-year a final report will be made by the instructor. The student may discontinue the course at the end of the first half-year with final credit for the portion completed.

The credit value of each course in units is indicated by a numeral in parentheses following the title. A unit of registration is one hour of the student's time at the University, weekly, during one half-year, 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 period during which a course is given is shown as follows: I, first half-year; II, second half-year; Yr., throughout the year; I, II indicates that the course is repeated each half-year.

AGRICULTURE

LEON D. BATCHELOR, Ph.D., Professor of Orchard Management and Director of the Branch of the College of Agriculture in Southern California, Riverside.

SAMUEL H. BECKETT, Engr., Professor of Irrigation Investigations and Practice.

HOWARD S. FAWCETT, Ph.D., Professor of Plant Pathology, Riverside.

HENRY J. QUAYLE, M.S., Professor of Entomology, Riverside.

ROBERT W. HODGSON, M.S., Professor of Subtropical Horticulture, and Assistant Director of the Branch of the College of Agriculture in Southern California.

IRA J. CONDIT, Ph.D., Associate Professor of Subtropical Horticulture.

ALFRED M. BOYCE, Ph.D., Assistant Professor of Entomology, Riverside.

HENRY H. CAMERON, Ph.D., Assistant Professor of Subtropical Horticulture.

PIERRE A. MILLER, M.S., Associate in Plant Pathology.

DAVID APPLEMAN, B.S., Instructor in Subtropical Horticulture.

ELMER R. EGGERS, B.S., Associate in Subtropical Horticulture.

Letters and Science List.—Entomology 1, 134, Plant Nutrition 110, Plant Pathology 120, Subtropical Horticulture 108.

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 Subtropical Horticulture.—Course 2 or the equivalent, and the requirements in the Plant Science Curriculum (see pages 95, 96 of this Catalogue, or the Prospectus of the College of Agriculture).

The Major in Subtropical Horticulture.—Twelve units of upper division courses normally including 100, 101, and 104.

Preparation for Other Majors in the Plant Science Curriculum.—See the Prospectus of the College of Agriculture and consult the adviser for students in Agriculture.

Laboratory Fees.—Entomology 1, \$2; 134, \$3; Irrigation 105, \$2; Plant Nutrition 110, \$2; Plant Pathology 120, 130, \$2; Subtropical Horticulture 100, \$3; 101, \$2.

ENTOMOLOGY

LOWER DIVISION COURSE

1. General Entomology. (4) II.

Mr. BOYCE

Lectures, M W F, 8; laboratory, W, 2-5. Fee, \$2.

Prerequisite: Zoölogy 1A recommended.

Fundamentals of the study of insects: anatomy, physiology, classification, life history and economic relationships. Laboratory: collection and preservation, comparative morphology taxonomy, and biological and economic considerations of representative species.

UPPER DIVISION COURSE

134. Insects Affecting Subtropical Fruit Plants. (4) II.

Mr. BOYCE, Mr. QUAYLE

Lectures, Tu Th, 8; laboratory, Tu Th, 1-4. Fee, \$3.

Prerequisite: Entomology 1 or 124 (Berkeley or Davis) recommended.

Principles of entomology from the economic viewpoint. Detailed consideration of the identity, nature of injury, biology, and control of the more important insects affecting citrus and other subtropical fruit plants. Laboratory: anatomy, life history and habits, and fumigation, spray, dust, and biological methods of control of the major pests.

GRADUATE COURSES

(Given at Riverside)*

200A-200B. Seminar in Entomology. (1-1) Yr. Mr. QUAYLE in charge

201A-201B. Research in Entomology. (1-6; 1-6) Yr.

Mr. QUAYLE, Mr. SMITH, Mr. BOYCE

IRRIGATION INVESTIGATIONS AND PRACTICE

UPPER DIVISION COURSE

105. Principles of Irrigation Practice. (4) II.

Mr. BECKETT

Lectures, M W, 9; laboratory, M W, 2-5. Fee, \$2.

Prerequisite: Physics 2A-2B or the equivalent; Botany 1 and 2 or the equivalent.

Sources of water supply; irrigation methods and practices; movement of irrigation water in the soil; and the irrigation requirements of crops, with special emphasis on the relation of soil moisture to the growth of citrus and other subtropical plants.

PLANT-NUTRITION

UPPER DIVISION COURSE

110. The Soil as a Medium for Plant Growth. (4) I.

Mr. CAMERON, Mr. APPLEMAN

Lectures, M F, 1; laboratory, W, 2-5. Fee, \$2.

Prerequisite: Chemistry 1A-1B, 5, 8.

Composition and properties of soils; soil and plant interrelations; culture solution studies; current theory of the soil solution; effects on the soil and plant of the addition of fertilizers and soil amendments.

GRADUATE COURSES

(Given at Riverside)*

202A-202B. Research in Soils. (1-6; 1-6) Yr.

Mr. KELLEY

203A-203B. Research in Plant Physiology. (1-6; 1-6) Yr.

Mr. REED

205A-205B. Seminar in Plant Physiology. (1-1) Yr.

Mr. REED in charge

237A-237B. Seminar in Soils. (1-1) Yr.

Mr. KELLEY in charge

* Inquiries concerning graduate instruction at Riverside should be sent to the Dean of the Graduate Division, Berkeley; the listing here is for the reader's convenience.

PLANT PATHOLOGY

UPPER DIVISION COURSES

120. Plant Diseases. (4) I. Mr. FAWCETT, Mr. MILLER
Lectures, Tu Th, 8; laboratory, M F, 2-5. Fee, \$2.
Prerequisite: Botany 1 and 2 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. (3) I. Mr. FAWCETT, Mr. MILLER
Lectures, M F, 8; laboratory W, 2-5. Fee, \$2.
Prerequisite: Plant Pathology 120 recommended.
The pathology of citrus and other subtropical fruit plants. The distribution, economic importance, nature, cause, and control of the principal diseases.

GRADUATE COURSES

(Given at Riverside)*

- 201A-201B. Seminar in Plant Pathology. (1-1) Yr. Mr. FAWCETT in charge
- 230A-230B. Research in Plant Pathology. (1-6; 1-6) Yr.
Mr. FAWCETT, Mr. HORNE

SUBTROPICAL HORTICULTURE

LOWER DIVISION COURSES

2. Elements of Fruit Production. (3) II. Mr. HODGSON
Lectures, M W F, 11.
Prerequisite: Botany 1 and 2 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.
3. Orchard Practice. (1) II. Mr. HODGSON, Mr. EGGERS
Laboratory, Tu, 2-5.
Prerequisite: Normally taken concurrently with course 2 and may not be taken without 2 or equivalent.
A laboratory course in orchard practice—propagation, planting, training, pruning, fruit-thinning and other orchard operations—designed to supplement the lectures in course 2.

UPPER DIVISION COURSES

100. Systematic Subtropical Pomology. (4) I. Mr. HODGSON, Mr. EGGERS
Lecture, Tu Th, 1; laboratory, Tu Th, 2-5.
Prerequisite: Subtropical Horticulture 2, or equivalent. Fee, \$3.
The botanical classification and relationships of the principal fruits; horticultural races and groups; growth and bearing habits; bud and fruit morphology; varietal characters.

* Inquiries concerning graduate instruction at Riverside should be sent to the Dean of the Graduate Division, Berkeley; the listing here is for the reader's convenience.

101. Citriculture. (4) II. Mr. HODGSON, Mr. CAMERON
Lectures, M W F, 10; laboratory, S, 8-11.
Prerequisite: Chemistry 1A-1B, Subtropical Horticulture 2 and 100, or equivalent.
Not open to students who took course 106 prior to September, 1935.
The characteristics of the citrus fruits and their responses to environmental influences and cultural practice; the economics of the citrus fruit industry.
Four Saturday field trips will be required.
102. Subtropical Fruits Other Than Citrus. (3) I. Mr. CONDIT
Lectures, M W F, 10.
Prerequisite: Subtropical Horticulture 2 or equivalent, and 100 (concurrently).
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 walnut, pecan, almond, fig, olive, and avocado.
Two Saturday field trips will be required.
104. Advanced Subtropical Horticulture. (3) II. M W F, 8. Mr. CAMERON
Prerequisite: Chemistry 1A-1B, Subtropical Horticulture 2, or equivalent, Botany 101 or equivalent, and Subtropical Horticulture 100.
Not open to students who took course 102 prior to September, 1935.
An analysis of the knowledge concerning the responses of fruit trees to environmental and cultural influences, with special reference to subtropical regions.
108. ~~History of Fruit Culture. (2) I. Lectures, M W, 9. Mr. CONDIT~~ h
Prerequisite: Subtropical Horticulture 2 or equivalent, and 100.
The origin and spread of fruit plants; the history of fruit culture and its relation to the development of civilization.
- 103A *Proseminar* (2) I
199A-199B. Special Study for Advanced Undergraduates. (2-4; 2-4) Yr.
The STAFF (Mr. HODGSON in charge)
Prerequisite: senior standing and consent of instructor.

GRADUATE COURSES

- 201A-201B. Research in Subtropical Horticulture. (1-6; 1-6) Yr.
Mr. CAMERON in charge
- 205A-205B. Seminar in Subtropical Horticulture. (1-1) Yr. M, 4-6.
Mr. HODGSON in charge

(Given at Riverside)*

- 201A-201B. Research in Subtropical Horticulture. (1-6; 1-6) Yr.
Mr. BATCHELOR, Mr. WEBBER

* Inquiries concerning graduate instruction at Riverside should be sent to the Dean of the Graduate Division, Berkeley; the listing here is for the reader's convenience.

ART

- GEORGE JAMES COX, R.C.A., Professor of Art.
 NELLIE HUNTINGTON GERR, Associate Professor of Fine Arts.
 LOUISE PINKNEY SOOY, Associate Professor of Fine Arts.
 BESSIE E. HAZEN, Ed.B., Assistant Professor of Fine Arts, Emeritus.
 HELEN CLARK CHANDLER, Assistant Professor of Fine Arts.
 BELLE H. WHITICE, Associate in Fine Arts.
 HELEN M. HOWELL, Ed.B., Associate in Fine Arts and Supervisor of Art Training.
 VIRGINIA VAN NORDEN WOODBRIDGE, Ed.B., Associate in Fine Arts.
 LOUISE GUTHRIE THOMPSON, Ed.B., Associate in Fine Arts.
 CLARA BARTRAM HUMPHREYS, M.A., Associate in Fine Arts.
 MARJORIE HARRIMAN, Ed.B., Associate in Fine Arts.
 ANNITA DELANO, Associate in Fine Arts.
 ADELAIDE MORRIS, M.A., Associate in Fine Arts.
 BERYL KIRK SMITH, Associate in Fine Arts.
 LAURA F. ANDRESON, Ed.B., Associate in Fine Arts.
 ANNIE C. B. MCPHAIL, Associate in Fine Arts.
 MILTON E. ECKE, Ed.B., Associate in Fine Arts.
-
- ADRIAN D. KELLER, B.S. in E.E., Associate in Mechanic Arts.
 NATALIE WHITE, M.A., Supervisor of Training, Art.

Instruction is offered by the department in the following fields:

Appreciation and History of Art: Courses 1, 11, 21, 101, 121A-121B, 131A-131B, 161, 191.

Art Education: Courses 160A-160B, 180, 190, 330.

Costume: Course 183A-183B.

Crafts: Courses 9, 19, 29A-29B, 39A-39B, 119, 179.

Design: Courses 2A-2B, 12, 22, 32A-32B, 152A-152B.

Drawing, Painting, and Sculpture: Courses 4A-4B, 134A-134B, 137, 154, 164, 177, 198, 199. $\cup 3$

House Design and Decoration: Courses 156A-156B, 186A-186B.

Illustration: Courses 135, 165A-165B, 175.

Theatre: Courses 8A-8B, 168.

THE TEACHERS COLLEGE

Preparation for the Major.—Courses 1, 2A-2B, 4A-4B, 8A-8B, 9, 12, 21, 32A.

The Major.—Twenty-five units of upper division courses. This program may be taken in one of three specified fields, and must be arranged with a departmental adviser.

The Minor in Education.—Education 103, 170, Directed Teaching, six to ten units; Art 160A-160B, 180.

For students with major or minor in art, courses 1 and 2A (or 22) are prerequisite to all other courses in the department except certain courses which may be taken concurrently with them.

THE COLLEGE OF LETTERS AND SCIENCE*

Letters and Science List.—Courses 1, 2A-2B, 4A-4B, 11, 32A-32B, 101, 121A-121B, 131A-131B, 134A-134B, 152A, 154, 161, 175, and 177 are included in the Letters and Science List of Courses. For regulations governing this list, see page 64.

Laboratory Fees.—Courses 19, 39A, 39B, 119, 198, 330, \$2; 134B, 164, \$5.

A-B (2-2) LOWER DIVISION COURSES *Formally I, II*
1/ Esthetics. (2) I, II. Mr. COX, Miss GERE

The nature, origin, and development of art. Practical applications in personal and civic life. Interrelation of the visual arts, their qualities, elements, and principles. Nomenclature and criteria.

2A-2B. Art Structure. (2-2) Beginning each half-year.

Miss HARRIMAN, Mrs. THOMPSON

2A. Fundamental course upon which all other courses are based. Principles of design. Development of appreciation of harmony produced through the organization of the art elements.

2B. Composition of naturalistic forms.

Course 2A is not open to students who have taken or are taking course 22.

4A-4B. Drawing and Painting. (2-2) Beginning each half-year.

Mrs. SMITH, Mrs. THOMPSON

4A. Principles of perspective and the development of feeling for fine quality in line and mass drawing of still-life, buildings, interiors, and furniture.

4B. The study of form, and interpretation through the medium of water color.

8A. Art of the Theatre. (1) I, II.

Mr. ECKE

The technique of the visual art of the theatre. Study of the materials and equipment of the modern stage. Construction of experimental models. Mechanics of lighting.

8B. Art of the Theatre. (1) I, II.

Mr. ECKE

Comprehensive study of the various processes of textile decoration. Practice of dyeing; draping and modelling of period styles. Experiments in new uses of materials in the theatre.

* The University of California at Los Angeles does not offer a major in art in the College of Letters and Science. Students wishing to satisfy the requirements for a major in art are referred to the General Catalogue of the Departments at Berkeley.

A-B crafts (2-2) *Art* *formerly 9, 19*
 9. Elementary Construction. (2) I, II. Miss WHITICE

Prerequisite: courses 1, 2A.

A practical course affording experience in a few of the more important crafts, with emphasis upon the values of fine design, sound construction, and use of appropriate materials.

1 B 11. Art and Civilization. (2)-I. Mr. Cox

Prerequisite: course 1.

A survey of the art centers of the old and new world with particular reference to the function of art in the modern state, city, and community.

12. Typographical Composition. (2) I, II. Mrs. SMITH, Miss MCPHAIL

Prerequisite: courses 1, 2A-2B.

Emphasis upon lucidity, directness, and beauty of lettering. The nature of the project as a determining factor in the selection of typographical forms. The composition of hand-lettered surfaces.

9 B 10. Ceramics. (2) I, II. Miss ANDERSON

Prerequisite: courses 1, 2A-2B. Fee, \$2.

Historical survey of the art and craft of pottery; its cultural and economic significance. Preparation and use of clays. Different methods of construction and decoration. Use of engobes and glazes. Mold making, casting, and pressing.

101A ~~91.~~ Art Appreciation: Costume and House Furnishing. (2) I, II. Mrs. SOOY and the STAFF

Prerequisite: course 1 or 2A or 22.

Part 1: Study of the structural harmony of modern dress; its relation to the figure, its suitability and expressiveness. Part 2: Principles underlying the use of the materials of the home: harmony of color, proportion, texture, arrangement. The emotional significance of line, color, and form in dress and interiors.

330 B ~~92.~~ Art Structure. (3) I, II. Mrs. HUMPHREYS and the STAFF

For Teachers College students.

Fundamental course in design and appreciation. Application in the modern school curriculum. Laboratory problems in the organization of the art elements. Lectures in esthetics and pedagogy.

Not open to students who have taken or are taking course 2A.

129AB ~~20-20a~~ The Art of the Book. (2-2) Yr. Miss WHITICE

Prerequisites: courses 1, 2A-2B, 9.

29A. Study of the book: its history and development, its materials, construction, and esthetic possibilities; bindings exemplifying types of sewing and forwarding, and illustrating appropriate uses of various binding materials.

29B. Study of the work of noted binders and of famous presses. Fine or "extra" binding. Finishing, including the decoration of books forwarded in leather in course 29A.

art structure (2) ^{Art} I, II. Formerly 32A

~~32A-32B. Art Structure. (2-2) Yr. Miss DELANO, Mrs. THOMPSON~~

Prerequisite: for 32A, courses 2A-2B, 4B; for 32B, courses 4A, 32A.

- 32 ~~32A~~ The development of imaginative insight in dealing with subject matter and the ability to create with line, space, and color in unified relations.
- 131 ~~32B~~ Original design in its relationship to various fields—ceramics, furniture, textiles, jewelry, and books. A search for qualities which will unify material and functional elements with line, color, texture, and space relations.

139A-139B. Weaving. (2-2) Yr. *now 139A-B* Miss WHITICE

Prerequisite: courses 1, 2A-2B, and (for 39B) junior standing. Fee, \$2 per half-year.

39A. Study of weaving; its history and development. Such experience in the techniques and processes of weaving as will enable the artist-craftsman to produce fabrics characterized by both technical excellence and fine esthetic qualities.

39B. Study of weaves; the materials of textiles; dyes. Harness, tapestry, and Egyptian card or tablet weaving; dyeing of yarns and fabrics; analysis of patterns and writing of original drafts.

A-101B (2-2) UPPER DIVISION COURSES Formerly 21, 101

101. History of ^{the specialized} Costume and Furniture. (2) II. Mrs. SOOY

Prerequisite: junior standing.

119. ~~A-B~~ ^(1-2 of Clay Modeling now 119) Advanced Ceramics. (2) II. Miss ANDRESON

Prerequisite: course 19. Fee, \$2.

A technical study of the nature and properties of clays, colored bodies, and pastes; glaze materials; formulae; mixing and application. Operation of the kiln.

121A-121B. History of Art. (2-2) Yr. Miss GERE

Required of all major students in art.

Prerequisite: course 1.

121A. Occidental architecture and allied arts from paleolithic times to the present (exclusive of sculpture and painting from the thirteenth century).

121B. Occidental sculpture and painting. Oriental architecture and allied arts.

129A-B (See 29A-B)

131A-131B. History of Art, Advanced. (2-2) Yr. *Hist of Sculpture & Painting* Miss GERE

Prerequisite: course 1.

131A. Italian painting and sculpture.

131B. Spanish, Flemish, Dutch, German, French, British, and American painting. Recent sculpture and painting.

~~132A-132B (See 32A-B) - Industrial Design (2-2)~~

134A-134B. Drawing and Painting. (2-2) Yr. Miss CHANDLER, Mrs. SMITH

Prerequisite: courses 2A-2B, 4A-4B. Fee for 134B, \$5.

144A-144B. Study of the fundamental principles controlling form, light, color, and space as a basis for the interpretation of observed facts. The development of understanding and esthetic feeling by creating new and expressive forms.

164A-164B. Life class. Organization of the significant rhythm of the human figure aiming at direct expression of character, movement, and form.

Book

135. Illustration. (2) I. Mr. COX, Miss CHANDLER
 Prerequisite: courses 32A, 134A.
 Study of the art of book illustration with exercises in original composition, leading to the complete illustration of a book, poem, fable, or legend, offering scope for imaginative design.
137. Landscape Painting. (2) II. *was 137, 177* Miss DELANO
 Prerequisite: courses 32A, 134A.
 The development of personal vision and independent expressions as applied to the essentials of landscape painting. Survey of modern and traditional schools.
- 139 A-B (2-2) See 39 A-B*
 152A-152B. Art Structure. (2-2) Yr. Miss CHANDLER, Miss DELANO
 Prerequisite: for 152A, course 134A; for 152B, course 32B.
- 172B* 152A. Advanced composition. Imaginative interpretation of naturalistic subject matter with emphasis upon harmony and simplicity in the design.
- 132B* 152B. Advanced industrial design.
- 144A-B Adv. Painting (2-2) See 134A, 154*
 144. Advanced Drawing and Painting. (2) I. Miss DELANO
 Prerequisite: courses 137, 152A.
 A search for individual ways of seeing and expressing what is of moving interest in the contemporary scene. Line, space, color, and light studied as related factors in creative expression.
- 156A-156B. House Planning and Decoration. (2-2) Yr.
 Prerequisite: courses 32B, 21. Mrs. SOOY, Mrs. WOODBRIDGE
 156A. A general cultural course, considering the home as a unit of beauty. Laboratory, lectures, and demonstrations. The arrangement of garden, house, floor plan, and furniture are studied as functional and decorative problems.
 156B. This course consists of a study of architectural forms and design applied to interior decoration. A general research is made into the essentials of the historic periods. Emphasis is put upon original adaptation and creation.
- 160A-160B. Principles of Art Education. (2-2) Yr. Miss HOWELL
 Prerequisite: junior standing.
 160A. A study of objectives, child growth and development, and principles of education as related to art education.
 160B. A study of method and the curriculum in art education.
- History of Mohammedan & Oriental Art*
 161. Oriental Art. (2) II. I Miss GEE
 Prerequisite: course 1.
 Architecture, sculpture, painting, and handicrafts: Mogul, native Indian styles, Indonesian, Chinese, Korean, and Japanese. Comparison of Oriental and Occidental art.
- A-B (2-2) was 134B, 164*
 164. Advanced Life Class. (2) II. Mr. COX
 Prerequisite: 134A-134B. Fee, \$5.
 Study of the figure with a view to its employment in original composition. A brief survey of its place in the history of art, and the proper function of anatomical studies. Objective drawing and expressive interpretation.

165A-165B. Advertising Illustration. (2-2) Yr.

Miss MCPHAIL

Prerequisite: courses 32A-32B, 134A-134B.

The graphic expression of the selling thought. The practical and economic possibilities of reproduction. The selection, simplification, and organization of telling pictorial or visual ideas.

The creative employment of modern techniques and mechanical processes directed toward the development of versatility and power in conception and expression, with economy of means.

168. Stage Directing. (1) II.

Mrs. SOOY

Prerequisite: course 8A-8B and senior standing.

Lectures on stage direction: duties of staff, crew, and actors; conduct of rehearsal, casting, etc. Emphasis upon esthetic unity of the many elements of the theatre, with special reference to the visual factors of costume, setting, lighting, gesture, and ensemble movement. Original production.

172A-B Adv. Composition (2-2) was 175, 152A
 175: Advanced Composition. (2) II. Mr. COX, Miss CHANDLER

172A Prerequisite: courses 134B, 152A.

Original work, as applied to wall painting and other forms of contemporary decoration.

137B 177. Landscape Painting. (2) I.

See 137A B

Miss CHANDLER

Prerequisite: courses 137, 152A.

179. Metal Craft. (2) II.

Miss WHITICE

Prerequisite: courses 1, 2A-2B, 32A-32B.

Original work in copper, brass, and silver, providing an opportunity for appropriate use of materials, and appreciation of the craftsman's contribution to industrial arts.

180. Theory and Philosophy of Art Education. (2) II.

Mrs. SOOY

Prerequisite: course 160A-160B.

Summary of the function of art education directed toward an understanding and appreciation of the economic and social significance of esthetic development. Comparative study of existing theories and practices.

183A-183B. Costume Design. (2-2) Yr.

Mrs. SOOY, Mrs. WOODBRIDGE

Prerequisite: courses 8A-8B, 32A-32B.

183A. Costume design for the theatre. A study of the possibilities of the drama as an inspiration for beauty of design, psychological interpretation, and historical adaptation. Actual plays are used as laboratory material.

183B. This is a study of design applied to modern clothes. Careful research, fine technical expression, and the charting of fashion trends are emphasized through laboratory work in shops and studio.

186A-186B. Interior Design. (2-2) Yr.

Mrs. SOOY, Mrs. WOODBRIDGE

Prerequisite: course 156A-156B.

186A. Study of the cultivation of style in interior design. Original creation is emphasized through a study of unusual color harmonies and form arrangements. The influence of fashion in interior decoration is demonstrated.

186B. This course develops the technique of interior decoration. Shop practice is given the student through actual problems in interior design in stores and homes.

7
 190. The Organisation and Supervision of Art Education. (2) II.

Prerequisite: courses 160A-160B, 180.

Miss HOWELL

A study of principles, problems, and procedure in organizing and supervising art education.

191. Civic Art Seminar. (2) I.

Mr. COX

199A² Prerequisite: courses 1 and 11, and approval of instructor.

This course provides an opportunity for experimental and research work upon the subject-matter of course 11.

119B 198. Clay Modeling. (2) I.

Mr. COX

Fee, \$2.

An examination of the theory and practice of the sculptor in traditional and modern works. Exercise in original plastic expression in relief and the round. Plaster casting, moulding and carving.

199. *Special Studies for Advanced Students.*
 Advanced Studio Work. (2) I. Mr. COX, Mrs. SOOY, Miss CHANDLER

Prerequisite: senior standing.

Open only to specially qualified students with the approval of the instructor. This course is designed to give an opportunity for advanced individual work upon specific problems connected with art and education.

PROFESSIONAL COURSE

A-B (3-3) *was 330, 22*
 330. Fine and Industrial Art Education. (3) I, II.

Mrs. HUMPHREYS, Miss MORRIS, Mr. KELLER, Miss WHITE

Prerequisite: course 2A or 22, and sophomore standing. Fee, \$2.

Not open to students who took course 30 prior to September, 1934.

The place of fine and industrial arts in kindergarten-primary and elementary education; the place of art appreciation in constructive activities; individual and group activities in the study of industrial art subject matter.

ASTRONOMY

FREDERICK C. LEONARD, Ph.D., Associate Professor of Astronomy.

JOSEPH KAPLAN, Ph.D., Associate 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 64.

Preparation for the Major.—Required: General physics (Physics 1A-1B-1C-1D, or, in meritorious cases, Physics 2A-2B, or their equivalents); plane and spherical trigonometry, plane analytic geometry, and differential and integral calculus (Mathematics C, F, 5, 9A-9B, or their equivalents). Recommended: A reading knowledge of French or German.

The Major.—Astronomy 103A-103B, 104A-104B, 117A-117B, and at least six additional upper division units chosen from courses in astronomy, physics, or mathematics, according to some definite plan approved by the Department.

LOWER DIVISION COURSES

1A. Elementary Astronomy. (3) I, II. M W F, 11. Mr. LEONARD

A cultural course for non-technical students in the general principles and the fundamental facts of astronomy, with particular emphasis on the solar system. Small sections for discussion and questions also are held.

1B. Stellar Astronomy. (3) II. M W F, 8. Mr. LEONARD

Prerequisite: course 1A.

The stellar system; results of recent researches in sidereal astronomy and astrophysics, and progress through the use of modern methods, especially the spectroscopic and the photographic. This course is a continuation of course 1A.

3. Practical Astronomy for Engineering Students. (1) II. Mr. LEONARD

Th, 1-3.

Prerequisite: sophomore standing; Civil Engineering 1FA and credit or registration in Civil Engineering 1FB, or the consent of the instructor.

A course intended primarily for civil engineering students; 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*; computing.

UPPER DIVISION COURSES

A year of college physics and plane analytic geometry are prerequisite to all the upper division courses in astronomy, except 125. Lower division courses in astronomy are not necessarily prerequisite to any of the upper division courses.

103A-103B. The Solar System. (3-3) Yr. M W F, 9. Mr. LEONARD

The general principles and the fundamental facts of astronomy, which pertain primarily to the solar system, are developed and discussed in detail.

For observational work in connection with this course, students may elect course 104A-104B, subject to the prerequisites announced.

*104A-104B. Practical Astronomy. (3-3) Yr. M W F, 11. Mr. LEONARD

An observing period, Tu, 7 to 10 p.m., may be substituted each week for any one of the regular class periods.

Prerequisite: spherical trigonometry, differential calculus, and either Astronomy 3 or 103A (103A may be taken concurrently with 104A).

The elements of practical astronomy, including the theory and the application of the equatorial telescope, the filar-position micrometer, the transit instrument, the astronomical clock, the sextant, and the surveyor's transit; the reduction of observations; and the use of star maps, star catalogues, and the *Almanac*.

107. The Method of Least Squares. (2) I. M F, 8. Mr. LEONARD

The theory of errors and least squares and its application to the solution of astronomical, physical, and engineering problems.

117A-117B. Astrophysics and Stellar Astronomy. (3-3) Yr. M W F, 11. Mr. KAPLAN

A laboratory period will occasionally be substituted, by appointment, for one of the regular class periods.

A general review of astrophysics and stellar astronomy, with particular reference to the application of the spectroscope to the solution of problems in these fields. Open to qualified upper division students whose major subject is astronomy, some other physical science, or mathematics.

*125. History of Astronomy. (3) I M W F, 8. Mr. LEONARD

Prerequisite: courses 1A and 1B, or one upper division course in astronomy.

199A-199B. Special Studies in Astronomy. (2-2) Yr. Mr. LEONARD, Mr. KAPLAN

Prerequisite: the consent of the instructor.

Investigation of special problems, or presentation of selected topics, chosen according to the preparation and the requirements of the individual student.

BACTERIOLOGY—See page 157.

BOTANY—See page 158.

* Not to be given, 1935-36.

CHEMISTRY

WILLIAM CONGER MORGAN, Ph.D., Professor of Chemistry.

MAX S. DUNN, Ph.D., Associate Professor of Chemistry.

¹WILLIAM B. CROWELL, Ph.D., Associate Professor of Analytical Chemistry.

G. ROSS ROBERTSON, Ph.D., Associate Professor of Organic Chemistry.

JAMES B. RAMSEY, Ph.D., Associate Professor of Chemistry.

HOSMER W. STONE, Ph.D., Assistant Professor of Chemistry.

WILLIAM G. YOUNG, Ph.D., Assistant Professor of Chemistry.

FRANCIS E. BLAOGT, Ph.D., Instructor in Chemistry.

C. ERNEST REDEMANN, A.B., Associate in Chemistry.

JAMES D. MCCULLOUGH, A.B., Associate in Chemistry.

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 64.

Preparation for the Major.—Required: Chemistry 1A-1B, which must be passed with a grade of C or better before any further work in chemistry is taken; Physics 1A-1C; trigonometry, Mathematics, 8, 3A-3B, and a reading knowledge of German. Recommended: a second course in chemistry, Physics 1B-1D, Mathematics 4A-4B.

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), 110 (3), 110B (3), 111 (4). The remainder of the twenty-four required upper division units may be taken in chemistry or allied subjects in accordance with some definite plan approved by the department. A student whose work in the major subject does not average C or better will be required to withdraw from the department.

Curriculum for Medical Technicians.—For details see page 71.

Pre-Chemistry.—The University of California at Los Angeles offers only the first two years of the curriculum of the College of Chemistry. Students intending to pursue their studies in this college should consult the lower division departmental adviser before making out their programs.

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; 5, 6A, 6B, \$17; 9, \$27; 10, \$10; 101, \$27; 107A, 107B, \$10; 111, \$22; 120, \$17; 199, \$15.

¹ In residence first half-year only, 1935-36.

LOWER DIVISION COURSES

Students who have not had high school chemistry may take course 2A in preparation for course 1A. However, in any combination of 2A-2B with 1A-1B, the total amount of credit will not exceed the normal credit for 1A (5 units) or for 1A-1B (10 units).

1A-1B. General Chemistry. (5-5) Beginning each half-year.

Mr. MORGAN and the STAFF

Lectures, M W F, 10 (for those beginning in September); M W F, 8 (for those beginning in February); laboratory, six hours.

Prerequisite: high school chemistry, or physics and trigonometry. Fee, \$14 per half-year.

Required in the Colleges of Engineering, Chemistry, Agriculture, and of pre-medical and pre-dental students and of majors in chemistry, bacteriology, and household science.

2A-2B. General Chemistry. (4-4) Yr.

Mr. DUNN

Lectures, M W F, 11; laboratory, three hours.

No prerequisite; high school chemistry is recommended. Fee, \$10 per half-year.

This course (or 1A-1B) is required of all home economics and physical education majors, and should be elected by students desiring chemistry as a part of a liberal education.

5. Quantitative Analysis. (3) I, II.

Mr. CROWELL

Lecture, Th, 9; laboratory, six hours.

Prerequisite: course 1A-1B. Fee, \$17.

A course in gravimetric and volumetric analysis, shorter than 6A-6B. Required of pre-medical students, of petroleum engineers, and of sanitary and municipal engineers.

6A-6B. Quantitative Analysis. (3-3) Yr.

Mr. CROWELL

Lecture, Tu, 9; laboratory, six hours.

Prerequisite: course 1A-1B. Fee, \$17 each half-year.

Required of economic geologists, chemistry majors, and College of Chemistry students. Course 6A is required of metallurgy students.

8. Elementary Organic Chemistry. (3) I, II. Mr. MORGAN, Mr. ROBERTSON
M W F, 9.

Prerequisite: course 1A-1B or 2A-2B; concurrent enrolment in course 9 is advisable.

This course is required of pre-medical and pre-dental students, sanitary and municipal engineers, petroleum engineers, chemistry and household science majors, and College of Chemistry students.

9. Methods of Organic Chemistry. (3) I, II. Mr. ROBERTSON, Mr. YOUNG

Lectures and quizzes on principals of laboratory manipulation Tu, Th, 8; laboratory, six hours.

Prerequisite or concurrent: course 8. Fee, \$27.

Required of petroleum engineers, pre-medical and pre-dental students, chemistry majors, and College of Chemistry students.

10. Organic and Food Chemistry. (4) I.

Mr. ROBERTSON

Lectures, M W F, 8; laboratory, three hours.

Prerequisite: course 1A-1B or 2A-2B. Fee, \$10.

Required of home economics majors.

UPPER DIVISION COURSES

101. Advanced Organic Laboratory. (3) II. Mr. ROBERTSON
 Laboratory, nine hours.
 Prerequisite: courses 8 and 9 and the ability to read scientific German.
 Fee, \$27.
 Introduction to research methods, analytic and synthetic.
102. Advanced Organic Lectures. (3) II. M W F, 9. Mr. MORGAN
 Prerequisite: course 8.
 Recommended for pre-medical students and majors in chemistry.
- 107A-107B. Biological Chemistry. (3-3) Yr. Mr. DUNN
 Lectures, Tu Th, 8; laboratory, three hours.
 Prerequisite: courses 5, 8, and 9. Fee, \$10 each half-year.
110. Physical Chemistry. (3) I. Mr. RAMSEY
 M W F, 10.
 Prerequisite: course 5 or 6A; Physics 1A, 1C.
 Required of chemistry majors and College of Chemistry students. Pre-
 requisite to all later work in physical chemistry.
 Lectures and problems.
- 110B. Advanced Physical Chemistry. (3) II. Mr. RAMSEY
 M W F, 10.
 Prerequisite: course 110.
 Required of chemistry majors.
 Lectures and problems. A continuation of course 110.
111. Physical Chemistry Laboratory. (4) II. Mr. RAMSEY
 Lecture, one hour; laboratory, nine hours.
 Prerequisite: course 110 and calculus. Fee, \$22.
 Physico-chemical problems and measurements.
120. Advanced Inorganic Chemistry. (3) I. Mr. STONE
 Lecture, one hour; laboratory, six hours.
 Prerequisite: courses 6A-6B and 110. Fee, \$17.
 Preparation and experimental study of substances. Designed primarily
 to illustrate the factors which influence equilibrium and the speed of chemi-
 cal reactions. Correlation of material by means of the periodic system.
195. Special Topics. (1) II. The STAFF
 Open to properly qualified juniors and seniors who receive the approval
 of the instructors in charge.
199. Problems in Chemistry. (3) I, II. The STAFF
 Prerequisite: junior standing with such special preparation as the prob-
 lem may demand. Fee, \$15.

GRADUATE COURSES

- 203A-203B. Thermodynamics from the Standpoint of Chemistry. (3-1) Yr.
 Mr. RAMSEY
- 251B. Seminar in Chemistry. (3) II. Mr. ROBERTSON
- 280A-280B. Selected Problems in Chemistry. (3-6; 3-6) Yr.
 Mr. BLACET, Mr. CROWELL, Mr. DUNN, Mr. RAMSEY,
 Mr. ROBERTSON, Mr. YOUNG

CLASSICAL LANGUAGES

ARTHUR PATCH MCKINLAY, Ph.D., Professor of Latin.

FREDERICK MASON CAREY, Ph.D., Associate Professor of Latin and Greek.

DOROTHEA CLINTON WOODWORTH, Ph.D., Assistant Professor of Latin and Greek.

HERBERT BENNO HOFFLEIT, Ph.D., Assistant Professor of Latin and Greek.

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 64.

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 C and D; courses 3A–3B, 5A–5B. Recommended: Greek, German, French.

B. Greek.—Required: Either course 1A–1B, or two years of high school Greek and course 101 or 102; and History 111A–111B. Recommended: Latin, German, French.

The Major.

A. Latin.—Courses 102, 106, 117, 119, 120, 191, and History 111A–111B. Six units of upper division courses in Greek may be substituted for History 111A–111B.

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.

LATIN

LOWER DIVISION COURSES

- A. Beginning Latin. (3) I. Mr. MCKINLAY, Mr. CAREY
M W F, 10, 11.
- B. Latin Readings. (3) II. Mr. MCKINLAY, Mr. CAREY
M W F, 10, 11.
Prerequisite: course A or one year of high school Latin.
- C. Third Year Latin: Review of grammar; Ovid. (3) I. Mrs. WOODWORTH
M W F, 12.
Prerequisite: course B or two years of high school Latin.
- D. Fourth Year Latin: Vergil. (3) II. M W F, 12. Mrs. WOODWORTH
Prerequisite: course C or three years of high school Latin; or B with special permission of the instructor.
- 3A–3B. Latin Prose Composition. ⁽²⁻²⁾~~(3-1)~~ Yr. Tu, 11. Mrs. WOODWORTH
Prerequisite: three years of high school Latin.

GA Latin Composition (1)

- 5A-5B. A Survey of Latin Literature. (3-3) Yr.
 M W F, 11. Mr. MCKINLAY, Mrs. WOODWORTH
 Prerequisite: four years of high school Latin.
 This course duplicates courses 1 and 5 given prior to September, 1935.
40. Latin Roots. (1) I. Tu, 9. Mr. MCKINLAY
 Knowledge of Latin not required.

UPPER DIVISION COURSES

Courses 102 and 106 are prerequisite to 117, 120, 140, and 191.

102. Catullus and Livy. (3) I. M W F, 2. Mr. HOFFLEIT
 Prerequisite: Latin 5A-5B.
- *104A-104B. Latin Composition. (1-1) Yr. Tu, 1. Mrs. WOODWORTH
 Prerequisite: Latin 3A-3B.
 Ciceronian Prose—104A, Narration; 104B, Exposition.
- 104C-104D. Latin Composition. (1-1) Yr. Tu, 1. Mrs. WOODWORTH
 Prerequisite: Latin 3A-3B.
 Ciceronian Prose—104C, Exposition; 104D, Argumentation.
106. Tacitus: Annals. (3) II. M W F, 2. Mr. HOFFLEIT
 Prerequisite: Latin 102.
- †109A-109B. A Survey of Latin Literature in English. (2-2) Yr.
 Tu Th, 9. Mr. MCKINLAY
117. Lucretius: Selection; Vergil: Eclogues and Georgics. (3) II.
 M W F, 2. Mr. CAREY
 Prerequisite: courses 102, 106.
120. Roman Satire. (3) II. M W F, 10. Mrs. WOODWORTH
 Prerequisite: courses 102, 106.
140. Ovid: Carmina Amatoria and Metamorphoses. (3) I. M W F, 10.
 Prerequisite: courses 102, 106. Mr. CAREY
191. Cicero: Life and Letters. (3) I. M W F, 2. Mr. MCKINLAY
 Prerequisite: courses 102, 106.
- 196A-196B. Readings in Medieval Latin. (2-2) Yr.
 Tu Th, 11. Mr. MCKINLAY
 Prerequisite: two years of high school Latin.
 Designed as a preparation for students interested in medieval history,
 Old English, French, Spanish, and Latin. Open to properly qualified students
 in the lower division.
- 199A-199B. Problems in Classical Philology. (2-2).
 Mr. MCKINLAY and the STAFF
 In 1935-36 is offered, in the first half-year, a course in comparative philology, followed in the second half-year by a course in historical Latin grammar. Open to upper division students of any language by permission of the instructor. Not open to students who have credit for Greek 199A-199B.
 Required of graduate students.

*Not offered, 1935-36. Courses 104A and 104B are given in alternation with 104C and 104D. Courses 104A and 104B will be offered in 1936-37. Two units required of Latin majors.

† Not offered, 1935-36.

GRADUATE COURSES

- 202A-202B. Roman Prose Writers. (3-3) Yr. Mr. MCKINLAY in charge
 202A. Cicero's Philosophical Works.
 202B. Roman Historians.
- 253A-253B. Seminar in Latin Studies. (3-3) Yr. Mr. MCKINLAY in charge

GREEK

LOWER DIVISION COURSES

- 1A-1B. Greek for Beginners, Attic Prose. (3-3) Yr. Mrs. WOODWORTH
 M W F, 9.
 Not open to students who have credit in 4A-4B or in 1AB-2AB given prior to September, 1935.
- 4A-4B. Greek for Beginners; New Testament Greek. (3-3) Yr. Mr. HOFFLEIT
 Not open for credit to students who have credit in course 1A-1B or in 1AB-2AB given prior to September 1935.
40. Greek Roots. (1) II. Tu, 9. Mr. MCKINLAY
 This course duplicates course 50 given prior to September, 1935.
 Knowledge of Greek not required. For scientific majors and others interested in an understanding of the terms they meet.

5A-B Readings in Greek (2-2)

UPPER DIVISION COURSES

- Courses 101 and 102 are prerequisite to 103, 104, 105, and 114.
- 100A-100B. Prose Composition. (1-1) Yr. Th, 10. Mr. HOFFLEIT
 Prerequisite: course 1A-1B.
101. Homer: Odyssey; Herodotus. (3) I. M W F, 12. Mr. HOFFLEIT
 Prerequisite: course 1A-1B.
102. Plato: Apology and Crito; Lyric Poets. (3) II. M W F, 11. Mr. HOFFLEIT
 Prerequisite: course 101.
- *103. Greek Drama: Euripides and Aristophanes. (3) II. M W F, 8. Mr. CAREY
 Prerequisite: courses 101, 102.
104. Historical Prose: Herodotus and Thucydides. (3) I. M W F, 8. Mr. CAREY
 Prerequisite: courses 101, 102.
105. Greek Drama: Aeschylus and Sophocles. (3) II. M W F, 8. Mr. CAREY
 Prerequisite: courses 101, 102.
- 109A-109B. Survey of Greek Literature in English. (2-2) Yr. Mr. CAREY
 Tu Th, 9.
- *114. Plato: Republic. (3) I. M W F, 8. Mr. CAREY
 Prerequisite: courses 101, 102.
- †117A-117B. Greek New Testament. (1-1) Yr. Mr. HOFFLEIT
- 199A-199B. Problems in Classical Philology. (2-2) Yr. Mr. MCKINLAY and the STAFF

COURSE IN ANOTHER DEPARTMENT

- History 111A-111B. Ancient History. (3-3) Yr. Mr. HOWARD

* Not to be given, 1935-36. Courses 103 and 114 are ordinarily given in alternation with 104 and 105 respectively. Courses 103 and 114 will be offered in 1936-37.

† Not offered, 1935-36.

ECONOMICS

*GORDON S. WATKINS, Ph.D., Professor of Economics and Dean of the Summer Session.

EARL JOYCE MILLER, Ph.D., Professor of Economics and Dean of Men.

HOWARD SCOTT NOBLE, M.B.A., C.P.A., Professor of Economics.

IRA N. FRISBEE, M.B.A., C.P.A., Associate Professor of Economics.

LEWIS A. MAVERICK, Ed.D., Ph.D., Associate Professor of Economics.

DUDLEY F. PEGRUM, Ph.D., Associate Professor of Economics.

FLOYD F. BURCHETT, Ph.D., Assistant Professor of Economics.

MARVEL M. STOCKWELL, Ph.D., Assistant Professor of Economics.

¹CONSTANTINE PANUNZIO, Ph.D., Assistant Professor of Economics.

GEORGE W. ROBBINS, M.B.A., Assistant Professor of Economics.

PAUL A. DODD, Ph.D., Assistant Professor of Economics.

HURFORD E. STONE, Ph.D., Assistant Professor of Economics and Assistant Dean of Men.

_____, Instructor in Economics.

EVA M. ALLEN, Associate in Commercial Practice.

ESTELLA B. PLOUGH, Associate in Commercial Practice.

At the University of California at Los Angeles a student may take, in this department, a major in economics, leading to the degree of Bachelor of Arts; or he may complete the first two years of the curriculum of the College of Commerce at Berkeley, leading to the degree of Bachelor of Science; or he may choose the major in commerce in the Teachers College, leading to the degree of Bachelor of Education and to the Special Secondary Credential in Commerce.

Instruction in upper division economics is offered in the following fields:

Economic Theory: courses 100, 106, 123, 131A-131B, 132, 133, 134, 135, 138, 140, 150, 171, 173, 195, 199.

Business Administration: courses 120, 121, 151, 160A-160B, 161, 162, 199.

Sociology: courses 181, 186, 187, 188, 199.

COLLEGE OF LETTERS AND SCIENCE

Letters and Science List.—All undergraduate courses except those under the heading "Commerce—Teachers Courses" are included in the Letters and Science List of Courses. For regulations governing this list, see page 64.

Preparation for the Major.—Required: courses 1A-1B, 14A-14B, and at least one other sequence chosen from the social science list (Junior Certificate requirement e,) or Philosophy 1A-1B.

The Major.—Twenty-four upper division units in economics including courses 100 and 140.

* Absent on leave, 1935-36.

¹ In residence first half-year only, 1935-36.

Pre-Commerce Curriculum.—The University of California at Los Angeles offers the first two years of the curriculum of the College of Commerce in the University at Berkeley. Students intending to pursue their studies in this college should consult the pre-commerce adviser before making out their programs.

THE TEACHERS COLLEGE

The Major in Commerce in the Teachers College.

Preparation for the Major.—Economics 1A-1B, 14A-14B, 15A or 15B; Commerce 16, 17, 18A-18B; Political Science 18A-18B; Geography 5A-5B; History 45 or 46.

The Major, leading to the Secondary Special Credential in Commerce.—Twenty-four units of advanced work approved by the department, including Economics 135, and at least one of the following: Economics 123, 173, 195.

The Minor in Education.—Education 103, 170; Directed Teaching, eight units; Commerce 197, 198.

Fees.—Commerce A, \$6; Commerce B, \$10; Commerce 16, \$2.50.

LOWER DIVISION COURSES

1A-1B. Principles of Economics. (3-3) Beginning each half-year.

Two hours lecture, and one hour quiz. Mr. MILLER, Mr. STOCKWELL

14A-14B. Principles of Accounting. (3-3) Beginning each half-year.

Two hours lecture, and two hours laboratory. Mr. NOBLE, Mr. FRISBEE
Prerequisite: sophomore standing.

15A-15B. Accounting Laboratory. (1-1) Yr.

Mrs. ALLEN

Should be taken only concurrently with course 14A-14B.

30A-30B. Social Institutions. (3-3) Yr.

Mr. PANUNZIO

This course duplicates course 185A-185B given prior to September 1935.

A critical study of the origin, evolution, structures, functions of social institutions; social processes and the idea of progress.

Lectures, discussions, and collateral reading.

UPPER DIVISION COURSES

Course 1A-1B is a prerequisite to all upper division courses in economics.

✓ 100. Advanced Economic Theory. (2) I, II.

Mr. MAVERICK

Prerequisite: senior standing.

An advanced study of the principles of economics, including an analysis of such fundamental concepts as value, price, cost, rent, interest, wages, and profits. The relation of these to the current problems of production, distribution and exchange.

*106. Economic Reform. (3) II.

Mr. WATKINS

Prerequisite: senior standing.

The concept, criteria, and agencies of economic and social progress. A statement and critical analysis of the theories and programs of modern economic reform movements. The essentials of social readjustment.

* Not offered, 1935-36.

120. Industrial Management. (3) I, II.

Mr. DODD

Development of scientific management, and its present application in modern industry. Includes a consideration of the problems and principles involved in plant location and construction, layout of machinery, storing of materials, and routing of production orders; together with a discussion of the efficient control of production and the inspection of performance.

Practical problems of scientific management are considered, and representative factories are visited.

121. Business Administration. (3) II.

Mr. NOBLE

Prerequisite: course 14A-14B and twelve units of upper division economics.

A study of the problems of business administration by the case method. Emphasis is placed upon the correlation of functions and activities of operating departments.

123. Principles of Marketing. (3) I, II.

Mr. ROBBINS

A general survey of principles and practices of marketing from the standpoint of manufacturer, middleman, and consumer. Emphasis is given to the analysis of problems of choosing channels of distribution, advertising, brands and trademarks, cooperative marketing, installment selling, price policy, research, and marketing costs.

131A-131B. Public Finance. (2-2) Yr.

Mr. STOCKWELL

The principles underlying the proper 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 our fiscal structure and policies.

132. Trust Problems. (3) I, II.

Regulation of Industrial Enterprises
Mr. PEGEUM

A study of the forms of business organization from the functional point of view. Fundamental factors lying behind the use and development of the various forms of business enterprise, industrial combinations and monopolies. An analysis of the agencies for the control of business activities; corporation laws; anti-trust laws; the Federal Trade Commission.

133. Corporation Finance. (3) II.

Mr. BURCHETT

Prerequisite: course 14A-14B and senior standing.

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 and economic effects as well as in their effect on the corporation and the shareholders.

134. Investments. (3) I.

Mr. BURCHETT

Prerequisite: course 14A-14B and senior standing.

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.

135. Money and Banking. (3) I, II. Mr. BURTOHETT
 A study of the functions of money and the development of credit institutions; the nature of the banking business, the development of the American banking system, and the significance of commercial banking in the financial organization of society.
138. Business Cycles. (3) II. 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 and consequent feasibility of forecasting; proper adjustment of business management to the cycles; possibility of controlling the cycle or alleviating its social effects.
140. Elementary Statistics. (4) I, II. Mr. FRISBEE, Mr. MAVERICK
 Tu Th, 8, and laboratory periods.
 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 applications of statistical methods in business problems.
 Recommended for the first half of the junior year.
150. Labor Economics. (3) I. Mr. WATKINS
 An introduction to the problems of industrial relations. The rise of modern industrialism. An examination of the principal problems of industrial relations and the most prominent agencies and methods of improvement. The basis of industrial peace.
151. Personnel Management. (2) II. Mr. DODD
 A study of the administration of human relations in industry; the development of employment relationships; 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.
- ✓ 160A-160B. Advanced Accounting. (3-3) Yr. M W F, 8, 9. Mr. FRISBEE
 Prerequisite: course 14A-14B.
 Continuation of corporation and of partnership accounting; insolvency and receivership accounts; specialized financial statements; estate accounting; consolidated balance sheets; actuarial accounting; advanced theory problems.
161. Cost Accounting. (3) I. Mr. NOBLE
 Prerequisite: courses 14A-14B, 160A-160B.
 Accounting in manufacturing enterprises. Cost systems; accounting for material, labor, and overhead; distribution of overhead; effective cost reports.
- ✓ 162. Auditing. (3) II. Mr. FRISBEE
 Prerequisite: courses 14A-14B, 160A-160B.
 Accounting investigations, balance sheet audits and detailed audits performed by public accountants. Valuation, audit procedure, working papers and audit reports.

171. Public Utilities. (3) I.

Mr. PEGRUM

Prerequisite: senior standing.

A study of the economics of public service corporations from both the public and private points of view. The legal and economic problems of regulation will be discussed carefully; problems of labor, finance, rate-making, and valuation will be analyzed. Attention will also be given to state, national, and international problems arising from the development of public utilities.

173. Economics of Transportation. (3) II.

Mr. PEGRUM

A general historical and contemporaneous survey of transportation agencies in the United States. An analysis of the functions of the different transportation agencies; rate structures, problems of state and federal regulations; coördination of facilities. Present status of the transportation problem.

181. Poverty and Dependency. (2) II.

Mr. STONE

Prerequisite: course 187.

Normal and abnormal aspects of poverty as a social problem; evaluation of historical and current methods of dealing with various classes of dependents; current and proposed preventive agencies and methods.

186. Population Problems. (3) II.

Mr. PANUNZIO

Prerequisite: course 30A-30B.

A study of population in the modern period; problems of quantity, migration, city concentration, and quality.

Lectures, discussions, original research.

187. Social Problems. (3) I, II.*Social Pathology*

Mr. STONE

Prerequisite: course 30A-30B.

Fundamentals in the approach to problems of social organization and disorganization; social problems in relation to social processes; subnormal and abnormal groups and conditions; causes, processes, and results; the agencies and methods of prevention and treatment.

Lectures, discussion, original research.

188. Crime and Delinquency. (2) I.

Mr. STONE

Prerequisite: course 187.

Crime and delinquency as social maladjustment; theories of crime and punishment; forms and causes of juvenile and adult crime; programs and methods of investigation, prevention and treatment; social and economic costs.

✓ 195. Principles of Foreign Trade. (3) I, II.*International Trade*

Mr. ROBBINS

Prerequisite: senior standing.

General principles governing international trade movements are examined in theory and in the recent trade histories of major nations. Emphasis is given to the development of judgment, concerning current questions of international economic policy, such as tariffs, intergovernmental debts, foreign commercial investments, and commercial treaties. Minor consideration is given to the methods and practices of exporting and importing.

199. Special Problems in Economics. (2) I, II.

Prerequisite: senior standing, six units of upper division economics and the consent of the instructor.

For the year 1935-36 the work will be done primarily in the following fields:

Section 1. Problems in Income Tax Procedure.

Mr. FRISBEE

Section 2. Problems in Sociological Theory.

Mr. PANUNZIO

Section 3. Problems in Economic Statistics. I.

Mr. MAVERICK

Prerequisite: Economics 140, Mathematics 3B or 9A.

Section 4. Problems in Public Finance and Taxation.

Mr. STOCKWELL

Section 5. Problems in Insurance.

Mr. BURTOHEFT

GRADUATE COURSES

201A-201B. History of Economic Doctrine. (3-3) Yr.

Mr. WATKINS

254A-254B. Seminar in Economic Theory. (3-3) Yr.

Mr. PEGRUM

265A-265B. Seminar in Accounting. (3-3) Yr.

Mr. NOBLE

235 Monetary theory

COMMERCE

TEACHERS' COURSES

†A. Typing. (No credit) I, II. Tu Th, 10, 11; M F, 1.

Mrs. ALLEN

Fee, \$6.

A study of the principles involved in learning to use the typewriter.

†B. Shorthand. (No credit) I. M W F, 10.

Mrs. ALLEN

Fee, \$10.

A study of the beginning principles of Gregg shorthand. Sight reading, penmanship drills, dictation.

✓ 16. Advanced Typing. (2) I, II. Tu Th, 9, 2.

Mrs. ALLEN

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.

Mrs. ALLEN

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-18B. Penmanship. (2-2) Beginning each half-year. Tu Th, 9, 10.

Mrs. PLOUGH

18A. A study of the principles of business handwriting; a survey of the methods of teaching penmanship in the elementary schools.

18B. Advanced study and practice in handwriting; a survey of the methods of teaching penmanship in the secondary schools.

197. Methods of Teaching Commercial Subjects. (2) I. Tu Th, 8.

Mrs. ALLEN

*198. Commercial Education. (2) II.

Mr. NOBLE

* Not offered, 1935-36.

† 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.

EDUCATION

ERNEST CARROLL MOORE, Ph.D., LL.D., Professor of Education, Vice-President and Provost of the University of California at Los Angeles.

CHARLES WILKIN WADDELL, Ph.D., Professor of Education and Director of the Training Department.

JUNIUS L. MERIAM, Ph.D., Professor of Education.

MARVIN LLOYD DARSIE, Ph.D., Professor of Education and Dean of the Teachers College.

MERTON E. HILL, Ed.D., Professor of Education and Director of Admissions.

J. HAROLD WILLIAMS, Ph.D., Professor of Education.

KATHERINE L. McLAUGHLIN, Ph.D., Associate Professor of Education.

HARVEY L. EBY, Ph.D., Associate Professor of Education.

FREDERICK P. WOELLNER, Ph.D., Associate Professor of Education.

WILLIAM A. SMITH, Ph.D., Associate Professor of Education.

CLARENCE HALL ROBISON, Ph.D., Associate Professor of Education and Associate Director of Admissions.

ETHEL I. SALISBURY, M.A., Associate Professor of Elementary Education and Supervisor of Training.

CORINNE A. SREDS, M.A., Assistant Professor of Elementary Education and Principal of the Training School.

JESSE A. BOND, M.A., Lecturer in Education and Supervisor of Secondary Training.

DAVID F. JACKEY, Ph.D., Lecturer in Education and Supervisor of Classes for the Training of Trade and Industrial Teachers.

THE TEACHERS COLLEGE

Preparation for the Major.—Biology 1, 12; Geography 1A-1B; Psychology 1A-1B.

The Major.—Eighteen units of upper division courses, including

Education 100 or Psychology 112

Education 101 or Psychology 119

Education 102 or Psychology 107A

Education 103 or 121 or 122

Education 104 or 105* or 138 or 150

Electives in education to total 18 units (Psychology 110 may be offered as an elective in education).

THE COLLEGE OF LETTERS AND SCIENCE

Letters and Science List.—Courses 103, 121, 122, 150, and 170 are included in the Letters and Science List of Courses. For regulations governing this list, see page 64. A major in education is not offered in the College of Letters and Science.

* Required for the Kindergarten-Primary Credential.

UPPER DIVISION COURSES

100. Growth and Development of the Child. (3) I, II. Miss McLAUGHLIN
 Prerequisite: Psychology 1A-1B.
 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.
101. The Conditions of Learning. (3) I, II. Miss McLAUGHLIN
 Prerequisite: Psychology 1A-1B.
 Speech, writing, number, literature, science considered as social institutions evolved through cooperative intellectual effort. Analysis of the conditions under which the child attains most effective mastery of these skills and knowledges.
102. Introduction to Educational Measurement. (2) I, II. Mr. WILLIAMS
 Prerequisite: Psychology 1A-1B.
 An introduction to the use of standardized tests and elementary statistical procedures in measuring the outcomes of teaching.
103. 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.
104. The Curriculum. (3) I, II. Mr. MERIAM
 Prerequisite: course 101.
 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.
105. Kindergarten-Primary Education. (3) I, II. Miss McLAUGHLIN
 The principles and practices underlying current trends in curriculum organization at the kindergarten-primary level. Critical evaluation of representative courses of study and experimental formulation of units of activity showing the continuity of child development.
113. The Nursery School. (3) II. Miss McLAUGHLIN
 A survey of the development of the nursery school movement, analyzing needs, purposes, procedures, outcomes, and criteria for evaluation.
121. Philosophy of Education. (3) II. Mr. DARSIE
 A critical analysis of the assumptions underlying education in a democratic social order.
122. History of Education. (3) I. Mr. DARSIE
 The evolution of educational practices and ideals with emphasis on social, economic, and philosophical backgrounds.
133. Educational Diagnosis. (2) I. Mr. WILLIAMS
 Prerequisite: senior standing and consent of the instructor.
 The use of standard tests and elementary statistical techniques in solving problems of school, class, and individual diagnosis.

135. Rural Society and Education. (3) I, II. Mr. EBY
A study of the social-economic conditions and needs in rural communities as related to rural education.
138. Problems in Rural Education. (3) I, II. Mr. EBY
Prerequisite: senior standing and consent of the instructor.
A study of rural school conditions with an evaluation of the means for their improvement. Special and individual problems. Field visits.
150. Public Education in the United States. (3) I, II. Mr. ROBISON
The development of significant educational movements in the United States as a basis for analysis of present-day problems.
160. Vocational Education. (2) I. _____
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. _____
The need of vocational guidance in a changing industrial order. The technique of guidance, as exemplified in case studies.
170. Secondary Education. (3) I, II. Mr. SMITH
Prerequisite: Psychology 1A-1B and senior standing.
A study of secondary education in the United States, with special reference to the needs of junior and senior high school teachers.
181. Principles of 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.

PROFESSIONAL COURSES

306. Children's Literature. (2) I, II. Miss MCLAUGHLIN
Not open to students who took Education 106 prior to September, 1934.
Sources of children's literature; basic principles for selection and presentation of suitable materials for young children; evaluation, classification, and placement of recent publications in the field.
390. Introduction to Elementary Teaching. (4) I, II. Miss SEEDS, Mr. WADDELL
Prerequisite to supervised teaching at the elementary level.

GRADUATE COURSES*

- 203A. Administration of Secondary Education. (2) I. Mr. HILL
- 203B. Supervision of Secondary Education. (2) II. Mr. HILL
- 229A-229B. The Junior College. (2-2) Yr. Mr. HILL
- 250A-250B. Major Seminar. (1-1) Yr. Mr. DARSIE in charge
Required of all candidates for the master's degree in education.
251. Seminar in Supervision. (2) II. *Admin & Superv. of Sch. Edu.* Mr. WADDELL
- 254A-254B. Seminar in Experimental Education. (2-2) Yr. Mr. WILLIAMS
255. Seminar in Test Construction. (2) II. Mr. WILLIAMS
- 260A-260B. Seminar in Comparative Education. (2-2) Yr. Mr. MERIAM
260A. School movements in various countries.
260B. Experiments in public and private schools.
- 270A-270B. Seminar in Secondary Education. (2-2) Yr. Mr. SMITH
- 276A-276B. Research in Curriculum. (2-3; 2-3) Yr. Mr. MERIAM
Individual investigation within the range of elementary and secondary schools.
- 213A-B *Early Childhood Ed Seminar*
SUPERVISED TEACHING

For courses in supervised teaching see Training Department (page 213).

* A thesis is required of all candidates for the master's degree.

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.
 ALFRED E. LONGUELL, Ph.D., Associate Professor of English.
 *HERBERT F. ALLEN, Ph.D., Associate Professor of English.
 CHARLES ALMER MARSH, B.S., Associate Professor of Public Speaking.
 MARGARET SPRAGUE CARHART, Ph.D., Assistant Professor of English.
 CARL SAWYER DOWNES, Ph.D., Assistant Professor of English.
 GEORGE SHELTON HUBBELL, Ph.D., Assistant Professor of English.
 CARLYLE F. MACINTYRE, Ph.D., Assistant Professor of English.
 HARRIET M. MACKENZIE, Ph.D., Assistant Professor of English.
 LLEWELLYN MORGAN BUELL, Ph.D., Assistant Professor of English.
 MAJL EWING, Ph.D., Assistant Professor of English.
 FRANKLIN P. ROLFE, Ph.D., Assistant Professor of English.
 ALICE O. HUNNEWELL, B.L.I., Instructor in English.
 EVALYN A. THOMAS, B.L.I., Instructor in English.
 JAMES MURRAY, Ed.D., Instructor in Public Speaking.
 WESLEY LEWIS, Ph.D., Instructor in Public Speaking.
 KATHERINE E. COLLINS, M.A., Associate in English.
 DECALVUS W. SIMONSON, M.A., Associate in English.
 EDWARD BOCK, M.A., Associate in English.
 HARRISON M. KARR, M.A., Associate in Public Speaking.
 PHILIP W. RICE, M.A., Associate in English.
 AGNES EDWARDS PARTIN, A.B., Associate in English.

Students must have passed Subject A (either examination or course) before taking any course in English or Public Speaking. Reference to regulations concerning Subject A will be found on page 37 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 64.

Preparation for the Major.—Courses 1A-1B and 36A-36B or the equivalent, with an average grade of C.

Recommended: History 5A-5B; ancient and modern foreign languages. A reading knowledge of French or German is required for graduate work toward a higher degree.

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.

* In residence second half-year only, 1985-86.

2. The program must comprise 24 units of upper division courses, including the restricted junior course, to be taken in the junior 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 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.

B. Requirements for Advancement to Candidacy.

1. A reading knowledge of French or German. The test is a written examination, set in the first week of each half-year and of the Summer Session. Graduate students are required to take this examination at the beginning of their first semester of residence.

2. The Senior English Comprehensive Examination, with a grade of B. The student who has not met this requirement as a part of the English major at the University of California normally presents himself for the examination at the close of his first semester of graduate work. The examination is set in January, May, and August.

C. Requirements for the Master's Degree.

For the general requirements, see page 98. The Department of English follows Plan II (The Comprehensive Examination Plan).

LOWER DIVISION COURSES

Freshman Courses

1A-1B. First-Year Reading and Composition. (3-3) Beginning each half-year.

M W F, 8, 9, 10, 11, 12, 2, 3.

Mr. BLANCHARD and STAFF

Open to all students who have received a passing grade in Subject A.

4A-4B. World Literature. (1-1) Yr.

Mr. BLANCHARD

*5A-5B. Great Books. (1-1) Yr.

Mr. BLANCHARD

Sophomore Courses

English 1A-1B is prerequisite to all sophomore courses in English.

31. Intermediate Composition. (2) I, II.

Mr. DOWNES, Miss MACKENZIE, Mr. ROLFE

This course duplicates course 51 given prior to September, 1935.

36A-36B. Survey of English Literature. (3-3) Beginning each half-year.

Mr. BUELL, Miss CARHART, Mr. DOWNES, Mr. HUBBELL, Mr.

MACINTYRE, Miss MACKENZIE

This course duplicates course 56A-56B given prior to September, 1935.

36A. Beowulf to Shakespeare. 36B. Shakespeare through Keats.

40. Introduction to English Literature. (3) I, II.

Mr. EWING

Not open to students who have credit for course 36A-36B or 56A-56B.

* Not offered, 1935-36.

UPPER DIVISION COURSES

Courses 1A-1B and either 36A-36B or 56A-56B are prerequisite to all upper division courses in English.

Group I

Students who have not passed English 31 will be admitted to 106A, 106C, and 106F only upon a test given by the instructor.

- | | |
|--|------------------------------|
| 106A. The Short Story. (2) I, II. | Mr. HUBBELL |
| 106C. Critical Writing. (2) I, II. | Mr. DOWNES |
| 106F. Exposition. (2) I, II. | Miss CARHART |
| *110. English Diction and Style. (3) I, II. | Mr. HUBBELL |
| 130A-130B. American Literature. (2-2) Yr. | Mr. DOWNES, Mr. HUBBELL |
| 153. Introduction to the Study of Poetry. (3) I, II. | Mr. LONGUEIL, Miss MACKENZIE |

*Group II**A. The Junior Course*

(Sections limited to forty students each)

Designed for juniors whose major or minor subject is English.

- | | |
|-------------------------------|-------------------------|
| 117J. Shakespeare. (3) I, II. | Mr. HUSTVEDT, Mr. BUELL |
|-------------------------------|-------------------------|
- A survey of from twelve to fifteen plays, with special emphasis on one chronicle, one comedy, and one tragedy.

B. The Type Courses

It is understood that major students in English will take at least one of the following courses.

- | | |
|--|-----------------------------|
| 114A-114B. English Drama from the Beginning to 1900. (3-3) Yr. | Miss CAMPBELL, Miss CARHART |
| 121A-121B. Nineteenth Century Poetry. (3-3) Yr. | Mr. LONGUEIL, Mr. ROLFE |
| 121A. Wordsworth to Tennyson. 121B. Tennyson to Swinburne. | |
| 125C-125D. The English Novel. (3-3) Yr. M W F, 2. | Mr. BLANCHARD. |
| 125G-125H. English Prose, 1600 to 1900. (3-3) Yr. | |
| 122A-B <i>Engl. Prose from Begin. to Present (3-3)</i> | Mr. EWING, Mr. MACINTYRE |

C. The Period Courses

It is understood that major students in English will take at least two of the following courses.

- | | |
|---|----------------------------|
| 151L. Chaucer. (3) I, II. | Mr. HUSTVEDT, Mr. LONGUEIL |
| 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) II. | Mr. BLANCHARD |

* Not offered, 1985-86.

- 177 *The Romantic Age: 1784-1832 (3) I, II*
- 187 *The Victorian Period: 1832-1892 (3) I, II*

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 first of which will take the form of an essay. 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 half-year; credit, 3 units.

PROFESSIONAL COURSE

361. The Teaching of English. (2) I. Tu Th, 12. Miss MACKENZIE

Not open to students who took English 161 prior to September, 1934.

May be counted as part of the eighteen units in education required for the secondary credential.

GRADUATE COURSES

- 225A-225B. The Ballad. (3-3) Yr. Mr. HUSTVEDT

Course 225A is not open to students who took course 225 prior to September, 1935.

225A. The Popular Ballad; 225B. The Art Ballad.

231. Marlowe. (3) II. Miss CAMPBELL

242. Fielding. (3) I. Mr. BLANCHARD

245. Spenser. (3) I. Miss CAMPBELL

Not open to students who took course 207A prior to September, 1935.

250. The Theory of Fiction (1600-1700). (3) II. Mr. BLANCHARD

PUBLIC SPEAKING†

LOWER DIVISION COURSES

- 1A-1B. Elements of Public Speaking. (3-3) Beginning each half-year.

Mr. MARSH, Mr. KARR, Mr. LEWIS, Mr. MURRAY

- 2A-2B. The Fundamentals of Expression and Interpretation. (3-3) Beginning each half-year.

Mrs. HUNNEWELL, Miss THOMAS

M W F, 8, 9, 11 (for those beginning in September); M W F, 11 (for those beginning in February).

† The University of California at Los Angeles does not offer a major in public speaking. Students wishing to satisfy the requirements 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. M W F, 10, 2.
Mr. MARSH, Mr. KARR, Mr. LEWIS
Prerequisite: course 1A-1B and the consent of the instructor.
10. Dramatic Interpretation: Shakespeare. (3) I. M W F, 2. Miss THOMAS
11. Dramatic Interpretation: Greek Tragedy. (3) II. M W F, 2.
Miss THOMAS

UPPER DIVISION COURSES

- 110A-110B. Third-Year Public Speaking. (3-3) Yr. Mr. MARSH
Prerequisite: course 5A-5B.
110A. Oral argumentation and debate; preparation of briefs; presentation of arguments.
110B. Practice in extemporaneous speaking; the preparation of the occasional address. Open to students selected from 110A.
- 111A-111B. Literary Interpretation. (3-3) Yr. Miss THOMAS
Prerequisite: course 2A-2B.
The study of typical literary forms such as the ballad, the lyric, the essay, and the short story.
- 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 abridgement of one three-act play in relation to public reading technique.
- 160A-160B. Debates on Public Questions. (2-2) Yr. Mr. MARSH
Prominent questions of current interest are thoroughly studied. Students are expected to do original research, and to submit the results of their study in briefs and written arguments. Oral debates are held in class.

FRENCH

HENRY RAYMOND BRUSH, Ph.D., Professor of French.

PAUL PÉRIGORD, Ph.D., Professor of French Civilization.

ALEXANDER GREEN FITE, Ph.D., Associate Professor of French.

MYRON IRVING BARKER, Ph.D., Assistant Professor of French.

FRANCIS J. CROWLEY, Ph.D., Assistant Professor of French.

MARIUS IGNACE BIENCOURT, Docteur de l'Université de Paris, Assistant Professor of French.

CLINTON C. HUMISTON, Ph.D., Instructor in French.

MADELEINE LETESSIER, A.B., Associate in French.

LOUIS F. D. BRIOIS, M.A., Associate in French.

ANNA FÉNELON HOLAHAN, M.A., Associate in French.

ALICE HUBARD, M.A., Associate in French.

PAUL BONNET, Lic. ès Lettres, 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 64.

Preparation for the Major.—French A, B, C, D, 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 140A-140B and 109A-109B, Section 2, may be applied on the major. With the permission of the department four units of the 24 may be satisfied by appropriate upper division courses in the following departments: English, German, Greek, Latin, Spanish, Italian, or philosophy.

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.

A. Elementary French. (5) I, II. Mr. BRIOIS in charge

B. Elementary French. (5) I, II. Mr. BRIOIS in charge
Prerequisite: course A or two years of high school French.

C. Intermediate French. (3) I, II. Mr. HUMISTON in charge
Prerequisite: course B or three years of high school French.

CD. Intermediate French. (5) I, II. Mr. HUMISTON in charge
Prerequisite: course B or three years of high school French.

D. Intermediate French. (3) I, II. Mr. HUMISTON in charge
Prerequisite: course C or four years of high school French.

5A-5B. Advanced French. (3-3) Yr. Mr. PÉRIGORD, Mr. BRIOIS
Prerequisite: course D.

5AB. Advanced French. (5) II. Mr. BRUSH
Prerequisite: course D.

19. Dramatic Interpretation in French. (2) II. Miss LEFESSIER

The study and presentation of a masterpiece of French dramatic literature. Only those students will be eligible for registration in this course who have done, without credit, certain preliminary work required by the department during the preceding semester. The work of the course will end with the production and this production shall constitute the examination. This course may be taken only twice for credit.

UPPER DIVISION COURSES

The prerequisite to all upper division courses except 109A-109B, Section 2, and 140A-140B is sixteen units in the lower division, including course D with a grade of A or B, or 5A-5B (or 5AB).

Courses 101A-101B and 109A-109B are ordinarily prerequisite to other upper division courses.

All upper division courses, with the exception of 109A-109B, Section 2, and 140A-140B, are conducted mainly in French.

101A-101B. Composition, Oral and Written. (3-3) Beginning each half-year.
Mr. BARKER, Mr. CROWLEY, Mr. BIENCOURT

109A-109B. A Survey of French Literature and Culture. (3-3) Yr.
Mr. PÉRIGORD, Mr. HUMISTON

Section 1 is given in French and is limited to French majors. Section 2 is given in English, does not count on the major in French.

109A. The Middle Ages, the Renaissance, and the seventeenth century.

109B. The eighteenth, nineteenth, and twentieth centuries.

112A-112B. The Nineteenth Century. (2-2) Yr. Mr. BRUSH
Prerequisite: courses 101A-101B and 109A-109B.

112A. From 1789 to 1830.

112B. From 1830 to 1885.

114A-114B. Contemporary French Literature from 1885 to the Present.
(2-2) Yr. Mr. FITZ

*115A-115B. Modern French Drama. (2-2) Yr. Mr. FITZ

* Not offered, 1935-36.

- 118A-118B. The Sixteenth Century. (2-2) Yr. Mr. HUMISTON
- 120A-120B. The Seventeenth Century. (2-2) Yr. Mr. BARKER
- 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.
- 140A-140B. 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. Intended primarily for major students in English and history.
- 199A-199B. Special Studies in French. (2-2) Yr. Mr. BIENCOURT
 Prerequisite: senior standing and at least twelve units of upper division French.

PROFESSIONAL COURSE

390. The Teaching of French. (2) II. Mr. BRUSH
 Prerequisite: courses 101A-101B and 109A-109B, the latter being permitted concurrently.
 Not open to students who took French 190 prior to September, 1934.

GRADUATE COURSES

- 201A-201B. Historical Grammar. (2-2) Yr. Mr. BRUSH
 History of French forms, sounds and syntax. An elementary knowledge of Latin is indispensable.
- 204A-204B. Voltaire and his Age. (2-2) Yr. Mr. BRUSH in charge
- 206A-206B. Reading and Interpretation of Old French Texts. (2-2) Yr.
 Mr. BRUSH
- 298A-298B. Special Studies in Literary Criticism. (2-2) Yr. Mr. FITE

GEOGRAPHY

GEORGE McCUTCHEEN McBRIDE, Ph.D., Professor of Geography.
 BURTON M. VARNEY, Ph.D., Associate Professor of Geography.
 CLIFFORD M. ZIERER, Ph.D., Associate Professor of Geography.
 MYRTA LISLE McCLELLAN, B.S., Assistant Professor of Geography.
 RUTH EMILY BAUGH, Ph.D., Assistant Professor of Geography.
 KAZUO KAWAI, M.A., Instructor in Geography and History.
 HALLOCK F. RAUP, 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 64.

Preparation for the Major.—Required: Geography 1A-1B, Geology 1C or 1A, and in addition, two of the following courses: Geography 3, 5B, 8. Recommended: Botany 1, Economics 1A-1B, one year of history, Physics 1A-1B, Political Science 3A-3B, Geology 1B, and at least one modern foreign language.

The Major.—The minimum requirement for the major is eighteen or twenty-one units of upper division work in geography, including courses 101 and 113 plus six or three units selected, with the approval of the department, from some one of the following departments: botany, economics, geology, history, political science.

Laboratory Fees.—Courses 1A, 1B, \$2.

LOWER DIVISION COURSES

1A-1B. Elements of Geography. (3-3) Beginning each half-year.

Miss McCLELLAN, Mr. KAWAI, Mr. RAUP

Lectures, two hours; laboratory, two hours; field trips. Fee, \$2 per half-year.

Course 1A is prerequisite to 1B.

A study of the main features of the physical environment in their relation to man's life and activities.

Not open for full credit to students who have credit for course 5A.

An expenditure of \$4 for field trips may be incurred by students in 1B.

3. Introduction to Weather and Climate. (3) I, II.

Mr. VARNEY

Lectures, two hours; laboratory, two hours.

Prerequisite: sophomore standing.

A study of the earth's atmosphere and the phenomena which produce weather and climate; recording of meteorological observations; work with meteorological instruments; study of weather maps.

5A-5B. Economic Geography. (3-3) Beginning each half-year.

Mr. ZIERER, Mr. RAUP

5A. No prerequisite, but limited to prospective majors in economics and commerce. Not open for full credit to students who have credit for course 1A-1B.

A brief study of those elements of the natural environment essential to a geographic interpretation of economic activities.

5B. Prerequisite: course 5A or 1A-1B.

The principles of economic geography as developed from a study of representative commodities, industries, and areas.

108 β. The Geographic Basis of Human Society. (3) I, II.

Miss BAUGH

Prerequisite: course 1A-1B.

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.

UPPER DIVISION COURSES

Course 1A-1B (or, for majors in economics and commerce, 5A-5B) is prerequisite to all upper division courses except 181.

101. Field Course: the Geography of Los Angeles and its Environs.

(3) II. Saturdays.

Mr. ZIERER

To be taken by major students during the junior year.

An expenditure of \$10 for transportation may be incurred by each student; registration to be made only after consultation with the instructor.

A field study in geography based on portions of the Los Angeles metropolitan area. The course affords training in the theory and technique of regional analysis.

111. The Conservation of Natural Resources. (3) I.

Mr. ZIERER

The significance of abundant and varied natural resources in the development of the United States and the need for conserving the national wealth in soils, minerals, forests, and water.

113. General Climatology. (3) I.

Mr. VARNEY

Course 3 is especially desirable as a preparation for this course.

A study of the underlying principles of climatic phenomena, of the features which characterize the climates of various regions, and of the influence of climatic conditions upon the life of plants, animals and the human race.

114. Regional Climatology: Western Hemisphere. (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 Basis of Sky (3)
121. The Geography of Anglo-America. (3) I.

Mr. ZIERER

Consideration of the principal economic activities and life of the people in the United States, Canada, and Alaska in relation to the natural environment.

- 122A-122B. The Geography of Latin America. (3-3) Yr. Mr. McBRIDE
 122A. South America.
 122B. Mexico, Central America, and the West Indies.
 A study of the physical conditions characterizing the countries of Latin America, particularly in relation to the life of the inhabitants.
- 123A-123B. The Geography of Europe. (2-2) Yr. Miss BAUGH
 123A. The Atlantic States of Europe.
 123B. Eastern and Southern Europe.
 The effect of geographic conditions upon the economic status, political organization, and distribution of population in the present-day states of Europe.
124. The Geography of Asia. (3) I, II. Mr. KAWAI
 A study of the geographic factors which affect the social and economic conditions in the leading countries of eastern Asia.
131. The Geography of California. (3) I, II. Miss BAUGH
 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.
155. Advanced Economic Geography. (3) II. Mr. ZIERER
 A detailed analysis of selected problems from the fields of urban, industrial, and commercial geography.
- 171A-171B. The Geographic Setting of American History. (2-2) Yr. Mr. McBRIDE
 Additional prerequisite: a university course in American history.
 The purpose of this course is to study the relation of the physical environment to the historical development of the peoples inhabiting the Americas.
 171A. Anglo-America. 171B. Latin America.
173. The Historical Geography of the Mediterranean Region. (2) II. Miss BAUGH
 A study of the geographic factors operative in the Mediterranean lands, particularly in their influence on ancient history.
181. Current Problems in Political Geography. (2) I, II. Mr. McBRIDE
 Prerequisite: junior standing.
 Consideration of the geographical basis of some important problems in domestic and international affairs, with stress upon the geographic principles involved.
199. Problems in Geography. (2) I, II. Mr. McBRIDE and the STAFF
 Open only to seniors who have the necessary preparation for undertaking individual study of a problem. Registration only after conference with the instructor.

PROFESSIONAL COURSE

- *369. The Teaching of Geography. (3) I, II. Miss McCLELLAN
 Limited to twenty students, registration to be made only after consultation with the instructor.
 Not open to students who took Geography 169 prior to September, 1934.
 The fundamental purposes of geography as an instrument of instruction; changing point of view; the basic principles; the various methods of presentation; the use of materials in the presentation of the subject.

GRADUATE COURSES†

- 251A-251B. Seminar in Regional Geography. (3-3 Yr. Mr. MCBRIDE, Mr. ZIERER
 251A. The anthropogeography of the tropical plateaus of America.
 251B. Advanced field course in the geography of a selected unit in Southern California.
- ~~255A~~-255B. Seminar in Physical Geography. (3-3) Yr. Mr. MCBRIDE, Mr. VARNEY
 115² 255A. An advanced survey of the physical bases of geography.
 255B. Oceanic and continental influences on the climates of California.

* Not offered, 1935-36.

† A thesis is required of all candidates for the master's degree in geography.

GEOLOGY

- WILLIAM JOHN MILLER, Ph.D., ScD., Professor of Geology.
 EDGAR K. SOPER, Ph.D., Associate Professor of Geology.
 ALFRED B. WHITMAN, Ph.D., Associate Professor of Geology.
 U. S. GRANT, Ph.D., Assistant Professor of Geology.
 JOSEPH MURDOCH, Ph.D., Assistant Professor of Geology.

Letters and Science List.—All undergraduate courses in geology are included in the Letters and Science List of Courses. For regulations governing this list, see page 64.

Preparation for the Major.—Required: Chemistry 1A-1B; elementary physics; Civil Engineering 1A-1B; Geology 1A-1B; Mineralogy 3A-3B; trigonometry; engineering drawing. Certain of these preparatory courses may be postponed to the upper division by permission of the department. Recommended: French and German.

The Major.—Geology 102A-102B, 103, 199A-199B, and at least 10 units of other upper division courses in the department which may include paleontology. Certain allied courses in chemistry, physics, biological sciences, and geography are recommended. The student's program is to be made out in accordance with some definite plan approved by the department.

Laboratory Fees.—Mineralogy 3A, 3B, \$2.

GEOLOGY

LOWER DIVISION COURSES

1A. General Geology: Dynamical and Structural. (3) I, II.

Mr. SOPER, Mr. MURDOCH, Mr. WEBB

I, M W F, 8, 9; II, M W F, 9, 10; and one section meeting per week.

Prerequisite: Elementary chemistry.

Two field trips (half-day) required.

A study of the materials and structure of the earth, and of the processes and agencies by which the earth has been, and is being, changed.

Not open to students who have taken or are taking course 1C.

1B. General Geology: Historical. (3) I, II.

Mr. MILLER

I, M W F, 9; II, M W F, 9, 10.

Prerequisite: course 1A or 1C.

A study of the geological history of the earth and its inhabitants, with special reference to North America.

1c. General Geology: Physiographic. (3) I, II.

Mr. MILLER, Mr. SOFER, Mr. GRANT

I, M W F, 10, 11, 12, 2; II, M W F, 8, 11, 12.

Two field trips (half-day) required.

An elementary course dealing with the earth's surface features and the geological laws governing their origin and development.

Not open to students who have taken or are taking course 1A

1d. Physiography. (2) I.

Mr. GRANT

Lecture, Tu, 10; laboratory, three hours.

Prerequisite: courses 1A or 1C, and 1B.

Two field trips and three extra lecture hours per term may be required.

The principles of physiography in their application to the study of selected regions, especially those of the western United States. Map work, reports, outside reading, and field trips.

Students who have taken course 2C cannot receive credit for course 1d.

UPPER DIVISION COURSES

102A-102B. Field Geology. (3-3) Yr.

Mr. WHITMAN

S, 9-5.

Prerequisite: Geology 1B, 103, and Civil Engineering 1LA-1LB, 1FA-1FB.

Credit in this course toward the major is given only to students who take the year's work.

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.

103. Introduction to Petrology. (4) I.

Mr. WHITMAN

Lectures, M F, 10; laboratory, M F, 2-5.

Prerequisite: Geology 1A, Mineralogy 3A-3B, and college chemistry.

The general characteristics, origins, mode of occurrence and nomenclature of rocks, and description of the more common types, accompanied by determinative laboratory practice.

104. Petrographical Laboratory. (3) II.

Mr. WHITMAN

Lectures, W, 12; laboratory, M F, 2, 3, 4.

Prerequisite: course 103.

Mineral optics and microscopy, and the study of thin sections of rocks.

*106. Economic Geology: Metalliferous Deposits. (3) II.

Mr. WHITMAN

M W F, 9.

Prerequisite: courses 1A, 1B, and 103.

A systematic study of ore occurrences, and of the genetic processes and structural factors involved.

* Not offered, 1935-36.

107. Physical Geology of North America. (2) II. Mr. MILLER
 Tu Th, 9.
 Prerequisite: courses 1A or 1C, and 1B.
 A course in advanced general geology with special reference to North America.
108. Economic Geology; Non-metalliferous Deposits. (2) I. Mr. MURDOCH
 Tu Th, 9.
 Prerequisite: courses 1A or 1C, 1B, and elementary chemistry.
 Special attention is given to coal, petroleum, building stones, clay, limes, salines, gypsum, fertilizers, and various minor minerals.
111. Petroleum Geology. (3) II. Mr. SOPER
 M W F, 11.
 Prerequisite: courses 1A, 1B, 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. SOPER
 Lecture, M W, 9; laboratory, W, 2-5.
 Prerequisite: courses 1A, 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 with laboratory and field investigations.
- 119 *Geophysics (2)*
 199A-199B. Problems in Geology. (2-2) Yr. To be arranged.
 Mr. MILLER and the STAFF
 Open only to seniors who are making geology their major study. Reports and discussions. Courses 199A and 199B should not be taken concurrently.
- Micropaleontology (2) II*
 GRADUATE COURSES*
- 235A-235B. Geology of California. (3-3) Yr. Mr. SOPER, Mr. GRANT
 235A. Physical Geology of California. Mr. SOPER
 235B. Paleontology and Stratigraphy of California. Mr. GRANT
251. Seminar in Petrology. (3) I. Mr. MILLER
 Advanced study of igneous and metamorphic rocks with emphasis on petrogenesis.
252. Seminar in Geomorphology. (3) II. Mr. MILLER
 Emphasis on general principles and regional studies.
- 290A-290B. Selected Problems in Geology. (3-3) Yr. Mr. WHITMAN
 290A. Diastrophism.
 290B. Advanced Economic Geology.

* A candidate for a master's degree in geology must have to his credit, in addition to the general University requirements, the minimum lower and upper division requirements for the department major or have completed Geology 107 and 116, and Paleontology 111, or equivalents. Acceptance of the candidate and of his program must be approved by the department. A thesis is required.

MINERALOGY

LOWER DIVISION COURSE

- 3A-3B. Introduction to Mineralogy. (3-3) Yr. Mr. MURDOCH
 Lecture, M, 1; laboratory, Section 1, Tu Th, 1-4; Section 2, M W, 2-5.
 Prerequisite: elementary chemistry and physics. Fee, \$2 per half-year.
 Lectures and laboratory practice in crystal morphology and projection,
 determination of minerals by the physical and chemical properties, and
 descriptive mineralogy.

UPPER DIVISION COURSE

101. Paragenesis of Minerals. (2) II. Mr. MURDOCH
 Tu Th, 10.
 Prerequisite: Mineralogy 3A-3B, Chemistry 1A-1B.

PALEONTOLOGY†

UPPER DIVISION COURSES

111. Systematic Paleontology. (4) I. Mr. GRANT
 Lectures, Tu Th, 11; laboratory, 6 hours.
 Prerequisite: Geology 1B or Paleontology 1.
 A general introduction to the study of invertebrate fossils.
112. Advanced Historical Geology. (3) II. Mr. GRANT
 Lecture, Tu, 11; laboratory, 6 hours.
 Prerequisite: Paleontology 111, Geology 1B.
 A general survey of earth history from fossil and physical evidence. The
 relationship between physical events and faunal evolution is stressed.

† Courses in Vertebrate Paleontology may be found in the announcement of the Department of Zoology (p. 161).

GERMAN

- GUSTAVE OTTO ARLT, Ph.D., Professor of German.
 ROLF HOFFMANN, Ph.D., Associate Professor of German.
 FRANK HERMAN REINSCH, Ph.D., Associate Professor of German.
 ALFRED KARL DOLCH, Ph.D., Assistant Professor of German.
 PHILIP ROBERT PETSCH, J.D., Instructor in German.
 GODFREY EHRlich, Ph.D., Instructor in German.
 CARL W. HAGGE, M.A., Instructor in German.
 GERALD M. SPRING, Ph.D., Instructor in German.
 CHRISTEL B. SCHOMAKER, M.A., Associate in German.
 ELSA VON SENDENHORST-BAUWENS, Associate in German.

Letters and Science List.—All undergraduate courses in German are included in the Letters and Science List of Courses. For regulations governing this list, see page 64.

Preparation for the Major.—Required: Courses A, B, C, D, and 6A-6B or their equivalents. Recommended: History 4A-4B, English 1A-1B, Philosophy 3A-3B.

The Major.—Twenty-four units in upper division courses, including courses 105A-105B, 106A-106B, 118A-118B and at least four units made up from the senior courses 111A-111B, 117, and 119. Students looking forward to the secondary credential should take also 106C-106D.

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.

- ^{No credit}
 A. Elementary German. (5) I, II. ^(for grad. students) Mr. EHRlich in charge
 This course corresponds to the first two years of high school German.
- B. Elementary German. (5) I, II. Mr. EHRlich in charge
 Prerequisite: course A or two years of high school German.
- C. Intermediate German. (3) I, II. Mr. HAGGE in charge
 Prerequisite: course B or three years of high school German.
- D. Intermediate German. (3) I, II. Mr. HAGGE in charge
 Prerequisite: course C or four years of high school German.
- OD. Intermediate German. (5) II. Mr. HAGGE in charge
 Prerequisite: course B or three years of high school German.
- 5A-5B. Advanced German. (3-3) Yr. Mr. REINSCH
 Prerequisite: course D or consent of instructor.
 This course duplicates course 50A-50B given prior to September, 1935.

5AS
 (1) Scientific German Reading (3)

- 6A-6B. Review of Grammar, Composition, and Conversation. (2-2) Yr.
 Mr. DOLCH in charge
 Prerequisite: course B or three years of high school German.

19. Dramatic Interpretation in German. (2) I. Mr. HOFFMANN
 The study and presentation of a masterpiece of German dramatic literature. Only those students will be eligible for registration in this course who shall have done, without credit, certain preliminary work required by the department during the preceding semester. The work of the course will end with the production and this production shall constitute the examination. This course may be taken only twice for credit.

UPPER DIVISION COURSES

The prerequisite for all upper division courses except 140A-140B is course D (6r CD) or the equivalent. Major students are also required to take course 6A-6B.

- 104A-104B. Introduction to Modern German Literature. (3-3) Yr.
 Selected readings from nineteenth century authors. Mr. REINSCH
- 105A-105B. German Classics of the Eighteenth Century. (3-3) Yr.
 Selected works of Lessing, Goethe, Schiller. Mr. REINSCH
- 106A-106B. Grammar, Composition, and Conversation. (2-2) Yr.
 Mr. DOLCH
- 106C-106D. Grammar, Composition, and Conversation. (2-2) Yr.
 Prerequisite: course 106A-106B. Mr. SCHOMAKER
- 110A-110B. German Lyrics and Ballads. (2-2) Yr. Mr. HOFFMANN
 German ballad and lyric poetry from the Middle Ages to the present.
- 111A-111B. The German Novel. (2-2) Yr. Mr. HOFFMANN
 Prerequisite: course 104A-104B, 105A-105B, or 106A-106B.
 Selected novels of Goethe, Freytag, Ludwig, Keller, Raabe, Meyer, Fontane, and others.
117. History of the German Language. (2) I. Mr. DOLCH
 Prerequisite: course 104A-104B or 105A-105B or 106A-106B.
 This course serves as an introduction to philology.
- 118A-118B. History of German Literature. (3-3) Yr. Mr. ARLT
 Prerequisite: course 104A-104B or 105A-105B.
 118A: the Middle Ages. 118B: from the Reformation to the death of Goethe.
 Lectures and discussions; collateral reading.
119. Middle High German. (3) II. Mr. DOLCH
 Prerequisite: courses 117 and 118A.
 Outline of grammar, selections from the Nibelungenlied, the Kudrun, and the Court Epics.
- 140A-140B. German Civilization. (2-2) Yr. Mr. HOFFMANN
 Prerequisite: junior standing.
 Lectures and reports. Conducted in English. May not be offered as part of the major or minor in German.
 A general survey of the development of German civilization in its more important cultural manifestations.

HISTORY

- FRANK J. KLINGBERG, Ph.D., Professor of History.
 WALDEMAR WESTERGAARD, Ph.D., Professor of History.
 JOHN CARL PARISH, Ph.D., Professor of History.
 JOSEPH B. LOCKEY, Ph.D., Professor of History.
 ROWLAND HILL HARVEY, Ph.D., Associate Professor of History.
 LOUIS K. KOONTZ, Ph.D., Associate Professor of History.
 DAVID K. BJORK, Ph.D., Associate Professor of History.
 LUCY M. GAINES, M.A., Assistant Professor of History.
 ROLAND D. HUSSEY, Ph.D., Assistant Professor of History.
 *JOHN W. OLMSTED, M.A. (Oxon.), Assistant Professor of History.
 ANDRÉ LOBANOV-ROSTOVSKY, Assistant Professor of History.
 JOHN W. CAUGHEY, Ph.D., Assistant Professor of History.
 BRAINERD DYER, Ph.D., Assistant Professor of History.
 KAZUO KAWAI, M.A., Instructor in History and Geography.
 CLINTON N. HOWARD, Ph.D., Instructor in History.
 EDWARD H. TATUM, JR., Ph.D., Instructor in History.

Letters and Science List.—All undergraduate courses in history except 11 are included in the Letters and Science List of Courses. For regulations governing this list, see page 64.

Preparation for the Major.—Required: (1) courses 4A-4B or 5A-5B, and (2) course 8A-8B, or equivalent preparation for students transferring from other departments or other institutions. Recommended: Political Science 3A-3B, Political Science 31A-31B, 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 the approval of the department.

Recommended: French, German, Latin, Spanish, Italian, or a Scandinavian language. For upper division work in history a reading knowledge of French or German, or both, is highly advisable; for graduate work, indispensable.

The Major.—Twenty-four units of upper division work in history. In certain cases two to six upper division units in either political science or economics approved by the department may be counted on the major.

The major must include a year course in European history [one of the following: 111A-111B, 121A-121B, 142A-B-C-D (any two consecutive half-years), 153A-153B] and a year course in American history (one of the following: 162A-162B, 171A-171B).

At least one advanced course must follow a general course in the same field, chosen within one of the following sequences: course 111A-111B, 121A-121B, 142A-B-C-D (any two consecutive half-years), or 153A-153B, followed by 199A-199B in European history; 162A-162B, or 171A-171B, followed by 199A-199B in American history. Only one advanced course need be taken.

* Absent on leave, 1985-86.

LOWER DIVISION COURSES

- 4A-4B. History of Western Europe. (3-3) Beginning each half-year.
Mr. BJORK, Mr. LOBANOV, Mrs. GAINES, Mr. KAWAI
M W F, 8, 9, 10, 12, 2.
The growth of Western European civilization from the decline of the Roman Empire to the present time.
- 5A-5B. History of England and Greater Britain. (3-3) Beginning each half-year.
Mr. HARVEY, Mr. HOWARD
M W F, 8, 10, 11, 12.
- 8A-8B. History of the Americas. (3-3) Beginning each half-year.
Mr. HUSSEY, Mr. CAUGHEY, Mr. DYER
M W F, 8, 9, 11, 12, 2; Tu Th, 8:30-10.
- 9A-9B } Great Personalities. (2-2) Yr. Tu Th, 10.
*9C-9D }
- 9A. United States. Mr. DYER
9B. Latin America. Mr. HUSSEY
9C. England.
9D. Continental Europe.
- *11. Social Studies in the Kindergarten-Primary Grades. (2) I, II.
Prerequisite: Psychology 1A.
Treats of sources of material, curricula now in use, and projects.
39. Pacific Coast History. (2) I, II. Mr. CAUGHEY
45. Economic History of England. (3) I. Mr. HARVEY
This course duplicates course 75 given prior to September, 1935.
46. Economic History of the United States. (3) II. Mr. HARVEY
This course duplicates course 76 given prior to September, 1935.

UPPER DIVISION COURSES

The prerequisite for all upper division courses is course 4A-4B, or 5A-5B, or 8A-8B, or equivalent preparation in history.

- 111A-111B. Ancient History. (3-3) Yr. M W F, 12. Mr. HOWARD
111A. Greek history to the Roman Conquest.
111B. Roman history to the sixth century A.D.
- 121A-121B. The Middle Ages. (3-3) Yr. M W F, 8, 9. Mr. BJORK
- *131A-131B. The Renaissance. (2-2) Yr. Mr. KLINGBERG
131A. The civilization of the Renaissance in Italy.
131B. The civilization of the Renaissance in northern Europe.

* Not offered, 1935-36.

112A-B Econ. Hist. of Western World (3-3)
A. Early times to 1750
B. 1750 to Present

142A-B-C-D. Modern Continental Europe since 1648. (3 units for each half-year.) Mr. WESTERGAARD, Mr. LOBANOV

142A. From 1648 to 1715. I.

142B. From 1715 to 1789. II. — Sec 2 (34-35 in depth)

142C. From 1789 to 1870. I.

142D. From 1870 to 1919. II.

*144A-144B. History of Northern and Eastern Europe. (2-2) Yr.

Mr. WESTERGAARD

Prerequisite: senior standing; German or French or Latin or one of the Scandinavian languages, and two years of college history, including course 4A-4B or 5A-5B, and one upper division course, preferably in continental or English history.

144A. Rise and decline of the Swedish Baltic empire and the rise of modern Russia.

144B. The Viking Age, Hanseatic League, the struggle for the control of the Baltic.

149A-149B. History of Russia. (2-2) Yr.

Mr. LOBANOV

Russia from its earliest days to the present.

152A-B Constitutional Hist. of England (2-2)

153A-153B. Social and Political History of Modern England: 1603 to the Present. (3-3) Beginning each half-year.

Mr. KLINGBERG, Mr. HARVEY, Mr. HOWARD

M W F, 11, Tu Th, 10-11:30 (for those beginning in September); M W F, 12 (for those beginning in February).

*155A-155B. History of the British Empire. (2-2) Yr.

Mr. KLINGBERG

Prerequisite: senior standing and two years of college history, including course 4A-4B or 5A-5B or 8A-8B and one upper division course in history.

162A-162B. History of Hispanic America from 1808 to the Present. (3-3) Yr.

M W F, 11, 12.

Mr. LOCKEY, Mr. HUSSEY

Prerequisite: course 8A-8B, or equivalent preparation approved by the instructor.

*164A-164B. History of Inter-American Diplomatic Relations. (2-2) Yr.

Mr. LOCKEY

Prerequisite: senior standing and two years of college history, including course 8A-8B or 162A-162B.

171A-171B. History of the United States. (3-3) Beginning each half-year.

Mr. PARISH, Mr. KOONTZ, Mr. DYER

A general course dealing with the English colonies and the political history of the United States.

172A-B Constitutional Hist. of U.S. (2-2)

173A-173B. The Civil War and Reconstruction. (2-2) Yr.

Mr. DYER

* Not offered, 1935-36.

- *181A-181B. History of the Westward Movement. (2-2) Yr. Mr. PARISH
Prerequisite: senior standing and two years of college history, including one upper division course. In any event, course 8A-8B or 171A-171B is a prerequisite.
A study of expansion in the United States from the Atlantic to the Pacific.
- 188A-188B. History of California. (2-2) Yr. Mr. CAUGHEY
- ✓ 191A-191B. History of the Far East. (3-3) Yr. Mr. KAWAI
A general survey of the history of the Far East from the earliest times to the present, with emphasis on recent international relations.
- 199A-199B. Special Studies in History. (2-2) Yr.
Mr. KLINGBERG, Mr. LOCKEY, Mr. PARISH, Mr. WESTERGAARD,
Mr. KOONTZ, Mr. BJORK, Mr. HARVEY
The work in each section must be continuous throughout the year.
Prerequisite: senior standing and two years of college history, including one upper division course. For further prerequisites, consult instructors concerned.
Term papers are required each half-year. Enrollment is limited to twenty-five.

Laboratory Work

Each member of the instructional staff will devote two hours a week to the guidance of groups of students in historical laboratory work, with emphasis on the use of the library and the evaluation and synthesis of historical materials. Supplementary to courses listed above; no additional credit. Students will participate in this plan by rotation, so that only a limited amount of additional time will be required of each student.

PROFESSIONAL COURSE

- *390. Social Sciences for Junior and Senior High Schools. (2) I, II.
Mr. KOONTZ
Not open to students who took course 190 prior to September, 1934.

GRADUATE COURSES

- 253A-253B. Seminar in English History. (3-3) Yr. Mr. KLINGBERG in charge
Studies of England during the Napoleonic and post-Napoleonic periods.
- 257A-257B. Seminar in Modern European History. (3-3) Yr.
Mr. WESTERGAARD in charge
Studies in nineteenth century continental history.
- 258A-258B. Seminar in United States History. (3-3) Yr.
Mr. PARISH in charge
Studies in the expansion of the American people.
- 260A-260B. Seminar in Hispanic American History. (3-3) Yr. Mr. LOCKEY
Studies in the colonial and early national periods.

* Not offered, 1935-36.

HOME ECONOMICS

- HELEN B. THOMPSON, Ph.D., Professor of Home Economics.
 GRETA GRAY, Ph.D., Associate Professor of Home Economics.
 VERZ R. GODDARD, Ph.D., Assistant Professor of Home Economics.
 MAUD D. EVANS, M.A., Associate in Home Economics.
 FLORENCE A. WILSON, M.A., Associate in Home Economics.
 PAULINE F. LYNCH, M.A., Associate in Home Economics.
 BERNICE ALLEN, M.A., Associate in Home Economics.

A student may select a major in this department either (a) in Home Economics, leading to the degree of Bachelor of Education in the Teachers College and to the Special Secondary Credential in Home Making; or (b) in Household Science, leading to the degree of Bachelor of Arts in the College of Letters and Science.

THE TEACHERS COLLEGE

Preparation for the Major in Home Economics.—Home Economics 1A-1B, 2, 11A-11B, 43A; Art 22; Chemistry 2A-2B, 10; Physiology 1; Economics 1A.

The Major in Home Economics, leading to the Special Secondary Credential in Home Making.—Home Economics 108, 110, 118A, 120, 162A-162B, 164, 168, and five units of advanced home economics approved by the department.

The Minor in Education.—Education 103, 170; Directed Teaching, six to ten units; Home Economics 147A-147B.

Vocational Home Economics.—A vocational curriculum in home economics is maintained under the provisions of the Smith-Hughes Act. This curriculum leads to the degree of Bachelor of Education and to the Special Secondary Credential in Home Making. It is open to students who have received the Junior Certificate and who have had practical experience in the administration of a home. All applicants must be approved by the Department of Home Economics.

THE COLLEGE OF LETTERS AND SCIENCE

Letters and Science List.—Courses 1A-1B, 11A-11B, 110, 118A-118B, 120, 125, 159, 162A-162B, 164, 168, and 199A-199B are included in the Letters and Science List of Courses. For regulations governing this list, see page 64.

Preparation for the Major in Household Science.—Home Economics 11A-11B, 43A; Chemistry 1A-1B, 8; Economics 1A-1B; Physiology 1.

The Major in Household Science.—Required: 18 units in upper division home economics, including (1) course 162A-162B; (2) at least six units chosen from 110, 118A, 120; (3) five to eight units chosen from 118B, 125, 159, 164, 168, 199A, 199B; and six additional units to be selected with the approval of the department from upper division courses in chemistry, economics, psychology, or zoölogy.

Laboratory Fees.—Courses 1A, 1B, 2, 175, \$1.50; 33A, 33B, 108, 199A, 199B, \$2; 11B, \$2.50; 110, 120, 125, 159, \$3; 11A, \$4.

LOWER DIVISION COURSES

1A-1B. Clothing. (3-3) Beginning each half-year.

Miss LYNCH, Miss WILSON

Prerequisite: matriculation credit in "clothing" or Art 22.

Fee, \$1.50 per half-year.

The study of kinds and qualities of materials for different uses; construction of typical forms of clothing; artistic appreciation, standards and hygienic characteristics of dress; construction time studies; quantity and cost estimates of wardrobes for individuals and for family groups.

2. ~~The Study of Dress.~~ (2) I, II.

Miss LYNCH

Prerequisite: course 1A. Fee, \$1.50.

A study of the artistic qualities of dress design, pattern, color and weave of fabrics; individual and social standards in the selection of clothing.

11A. Elementary Food. (3) I, II.

Miss ALLEN

Prerequisites: high school chemistry or Chemistry 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.

Miss EVANS

Prerequisite: course 11A. Fee, \$2.50.

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; the practical problems involved in the selection and service of food in school lunch rooms and for social functions involving large groups.

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 and sub-normal conditions of growth and physical development, and as a factor in the health of adults.

~~32A-32B. Elementary Food and Dietetics.~~ (2-2) Yr.

Miss EVANS

Fee, \$2 per half-year.

A brief study of food selection and preparation and of its economic uses. Calculations of nutritive values, planning of dietaries for individuals, the family, and other groups.

43A-43B. Elementary Household Administration. (2-2) Beginning each half-year.

Miss GRAY, Miss DAVIS

43A. Equipment; standards and methods of household work; prices and values of house furnishings; housing.

43B. Management problems including those pertaining to the social aspects of the home in the care and training of children.

UPPER DIVISION COURSES

- *102A-102B. Food and Dietetics. (3-3) Yr. Miss THOMPSON, Miss GODDARD
Prerequisite: Chemistry 1A-1B, or high school chemistry and Physiology 1. Fee, \$3 per half-year.
A brief study of the nutritive values of the food materials; individual food needs in normal and pathological conditions both in adult life and in childhood; planning of dietaries; calculation and preparation of diets with special reference to cost of materials in relation to nutritive standards.
108. Textiles. (2) I, II. Miss WILSON
Prerequisite: Art 22, Chemistry 10, Economics 1A. Fee, \$2.
The economic development of the textile industry; history of weaves and patterns; chemical, physical and microscopic examination of textile fibers, yarns and fabrics; bleaching and dyeing; stain removal; laundry processes as they affect color, texture, shrinkage, and durability.
110. Food Compositions. (3) I, II. Miss GODDARD
Prerequisite: Chemistry 8 or 10. Fee, \$3.
Detailed study of the proximate principles, the inorganic constituents, and the vitamins with reference to their occurrence in the different food materials, their chemical properties, and their nutritive values as affected by heat or the admixture of other food substances.
- 118A-118B. Nutrition. (3-2) Yr. Miss THOMPSON
Prerequisite: Chemistry 8 or 10, Physiology 1.
Discussions of the chemical and biological factors in metabolism, energy transformation, the quantitative relations of the ash constituents, nitrogen and mineral balances in both normal and pathological conditions. Attention is given to recent literature bearing upon growth and upon normal and subnormal nutrition in infancy and childhood.
120. Dietetics. (3) I, II. Miss THOMPSON, Miss GODDARD
Prerequisite: Chemistry 8 or 10, Home Economics 110 or 118A. Fee, \$3.
Daily food requirements as indicated by the experimental studies that have established the quantitative basis in dietetics; calculations of standard portions and combinations of foods; computations and scoring of dietaries with special reference to food requirements in childhood and adolescence and in varying physiologic conditions at all periods of life.
125. Experimental Cookery. (2) I. Miss GRAY
Prerequisite: course 110. Fee, \$3.
Quantitative methods in food preparation, under controlled conditions.
- 136A-B Institutional Economics (3-3)
- 147A. Development of Home Economics Education. (3) I. Miss THOMPSON
Prerequisite: Psychology 1A, 1B, nine or more units in home economics.
The development of home economics as an educational movement; organization of curricula and present status of courses in different types of schools.

* Not offered, 1935-36; will be offered, 1936-37.

147B. Principles of Home Economics Teaching. (3) II.

Prerequisite: Psychology 1A, 1B, six or more units in home economics.
Study of typical courses and their presentation; critical review of texts and references for elementary and secondary schools.

159. Metabolism Methods. (3) II.

Miss GODDARD

Prerequisite: Chemistry 8 or 10; Home Economics 118A or equivalent preparation. Fee, \$3.

Laboratory observations of the influence of special diets upon various phases of metabolism; practice in the methods for the analysis of blood and of digestion and metabolic products; determinations of the respiratory exchange and of nitrogen and mineral excretions.

162A-162B. Economics of the Household. (2-2) Yr.

Miss GRAY

Prerequisite: Economics 1A-1B, or six or more units in home economics.

162A. Standards of living; size, composition, income and expenditures of American households; study of the factors which have developed the modern household and which influence its activities and its selection and utilization of goods and services.

162B. Readings and reports of recent literature and discussion of the trends in the development of the art of consumption.

164. Household Sanitation. (2) II.

Miss GRAY

Sanitary standards and methods applicable to household processes. Family responsibility for health.

Not open to students who have taken course 164A.

168. Family Relationships. (2) I.

A study of the social development of the home and its contribution to culture at different stages of civilization; modern problems of family life pertaining to the social and personal well-being of the group.

Not open to students who have taken course 164B.

175. Advanced Study of Costume. (3) II.

Miss WILSON

Prerequisite: Art 22, Home Economics 1A-1B, 2. Fee, \$1.50.

Practice in the development of designs for individuals and of the adaptation of materials and methods of construction to the various problems of modern costume.

179. Economics of Textiles and Clothing. (2) I.

Miss LYNCH

Prerequisite: Economics 1A-1B, or Home Economics 1B.

The history and organization of the clothing trades and industries; the manufacture and utilization of fabrics; qualities and standards of textiles and their hygienic uses; individual and household practices in clothing selection.

199A-199B. Problems in Home Economics. (2-2) Yr.

Miss THOMPSON, Miss GRAY, Miss GODDARD

Prerequisite: senior standing with such special preparation as the problem may demand. Fee, \$2 per half-year.

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.

LIFE SCIENCES GROUP

LOYD HOLMES MILLER, Ph.D., Chairman.

This group is composed of the Departments of Bacteriology, Botany, and Zoölogy, and has been organized in order to coördinate and unify their activities. Through a special committee set up for the purpose, an attempt will be made, while giving fair play to the development of each of the departments, to make their offerings in courses and their work in research articulate to the advantage of all concerned.

BACTERIOLOGY

THEODORE D. BECKWITH, Ph.D., Professor of Bacteriology.

MERIDIAN R. GREENE, Ph.D., Instructor in Bacteriology.

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 64.

Preparation for the Major.—Bacteriology 1, Chemistry 1A-1B, Zoölogy 1A-1B, Botany 2, Physics 2A-2B, French or German. Recommended: Chemistry 5, 8, 9; Zoölogy 4.

The Major.—Bacteriology 103 (4 units) and Bacteriology 199A-199B (4 units) together with 16 units of upper division work in related subjects, these to be selected from the following series: Zoölogy 101, 105, 106, 107, 107C, 111, 111C, Botany 105A, 120, Chemistry 107A-107B, Home Economics 159, Plant Nutrition 110, Plant Pathology 120. Courses are to be chosen with the approval of the department.

Curriculum for Medical Technicians.—For details, see page 71.

Laboratory Fees.—Courses 1, \$12.50; 103, \$15; 199A, 199B, \$8.

LOWER DIVISION COURSES

1. Fundamental Bacteriology. (4) I, II.

Mr. BECKWITH

Prerequisite: Chemistry 1A. Fee, \$12.50.

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 Bacteriology 6 will receive only three units for course 1.

6. General Bacteriology. (2) II.

Mr. BECKWITH

A cultural course for non-technical students.

Students who have credit for Bacteriology 1 will receive only one unit for course 6.

UPPER DIVISION COURSES

103. Advanced Bacteriology. (4) I. Mr. BECKWITH
Prerequisite: course 1. Fee, \$15.
The more advanced principles of the life activities, growth, and morphology of bacteria. The etiology of disease.
- 199A-199B. Problems in Bacteriology. (2-2) Yr. Mr. BECKWITH
Open to qualified students by special arrangement.
Fee, \$8.00 per half-year.

MICROBIOLOGY

GRADUATE COURSES

- 251A-251B. Seminar in Microbiology. (2-2) Yr.
Mr. BECKWITH, Mr. BALL, Mr. PLUNKETT
- 273A-273B. Research in Microbiology. (2-5; 2-5) Yr.
Mr. BECKWITH, Mr. BALL, Mr. PLUNKETT

BOTANY

- OLENUS L. SPONSLER, Ph.D., Professor of Botany.
CARL C. EPLING, Ph.D., Assistant Professor of Botany.
ARTHUR W. HAUPT, Ph.D., Assistant Professor of Botany.
²ARTHUR M. JOHNSON, Ph.D., Assistant Professor of Botany.
ORDA A. PLUNKETT, Ph.D., Assistant Professor of Botany.
¹FLORA MURRAY SCOTT, Ph.D., Assistant Professor of Botany.
MARTEA H. KINSEY, M.A., Associate in Botany.
WALTER B. WELCH, M.A., Associate in 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 64.

Preparation for the Major.—Botany 1 and 2, Chemistry 1A-1B or 2A-2B, German A, B. In addition to these courses, certain phases of botanical work require Geology 1A-1B, Physics 2A-2B, Bacteriology 1, and Zoölogy 1A.

The Major.—Fifteen units of upper division botany, including taxonomy, morphology, and physiology; and in addition, nine or more units in botany or related courses—bacteriology, chemistry, geology, paleontology, and zoology—to be chosen with the approval of the department.

Laboratory Fees.—Courses 10, 101, \$3; 109, 111, 120, \$2.

² In residence second half-year only, 1985-86.

¹ In residence first half-year only, 1985-86.

LOWER DIVISION COURSES

- ~~4~~ General Botany. (4) I, II. Mr. EPLING and the STAFF
Lectures, Tu Th, 12; six hours laboratory.
A survey of the science of plant life: how plants live, multiply, and inherit; their families and communities; their economic relation to man. Three afternoon trips will be made by bus to nearby localities; a Saturday trip will be made to the San Fernando Valley and another to Mt. San Jacinto.
- 18
2 General Botany. (4) I, II. Mr. HAUPT, Mr. JOHNSON, Mr. PLUNKETT
Lectures, M W, 12; six hours laboratory.
A continuation of course 1, dealing with the comparative morphology of all of the great plant groups.
10. Botanical Microtechnique. (3) I. Mr. HAUPT
Lecture, one hour; laboratory, six hours.
Prerequisite: courses 1 and 2. Fee, \$3.
Preparation of plant material for microscopic study involving methods in fixing, embedding, sectioning, and staining.

UPPER DIVISION COURSES

General Prerequisite.—Botany 1 and 2 are prerequisite to all upper division courses, except 103.

- 7 ~~101~~ Plant Physiology. (3) I, ~~II~~ — 4 units II Mr. SPONSLER
Lecture, one hour; laboratory, six hours.
Prerequisite: Botany 109, and chemistry. Fee, \$3.
Experimental work designed to demonstrate various activities of the plant.
- 102 ~~Forest Botany~~ (3)
- *103. Economic Botany. (2) I. Mr. JOHNSON
Lectures, two hours.
Prerequisite: course 1, or its equivalent.
Designed for students in economics and geography. The lectures deal with the growth, distribution, and development of plants which form the basis of a few of the larger industries, such as those concerned with cereals, sugar, fibers, lumber, pulp and paper, cellulose products, etc.
- 106A-B
104A-104B Taxonomy of the Seed Plants. (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 seed plants involving a study of the principles of phylogenetic classification and geographical distribution. Designed for botany majors, teachers of nature study, and students in the College of Agriculture.
- 105A. Morphology of Thallophytes and Bryophytes. (4) I. Mr. PLUNKETT
Lecture, two hours; laboratory, six hours.
A study of the structure, development and phylogenetic relationships of the principal orders of fresh water and marine algae, of fungi, and of liverworts and mosses.

* Not offered, 1935-36.

- 105B. Morphology of Pteridophytes and Spermatophytes. (4) II. Mr. HAUPT
Lecture, two hours; laboratory, six hours.
Structure, development and phylogenetic relationships of the principal orders of ferns and their allies, and of the gymnosperms and the angiosperms.
- 6 109. Plant Anatomy. (3) I. Miss SCOTT
Lecture, one hour; laboratory, six hours.
Recommended: course 10. Fee, \$2.
The microscopic structure of the higher plants with particular reference to the development and differentiation of vegetative tissues.
111. Plant Cytology. (3) II. Miss SCOTT
Lecture, one hour; laboratory, six hours.
Prerequisite: courses 10, 109, and 105A or 105B. Fee, \$2.
Structure and physiology of the cell.
114. Advanced Plant Physiology. (3) I. Mr. SPONSLEER
Conferences and laboratory.
Prerequisite: courses 101 and 109, chemistry, and physics.
Experimental work on certain functions of the plant.
- 119 *Mycology* (3) I
120. Phytopathology. (3) II. Mr. PLUNKETT
Lecture, one hour; laboratory, six hours. Fee, \$2.
A study of bacterial and fungous diseases of plants.
152. General Plant Ecology. (3) II. Mr. JOHNSON
Lecture, one hour; laboratory and field, six hours.
Prerequisite: course 104A-104B.
Field and laboratory studies of plant communities and their relation to the environment.
195. Special Topics. (2) I, II. —
Open only to qualified seniors and graduate students.
- 199A-199B. Problems in Botany. (2-2) Yr. Mr. SPONSLEER and the STAFF
Prerequisite: senior standing.

GRADUATE COURSES

- 252A-252B. Seminar in Principles and Theories in Botany. (2-2) Yr.
Mr. SPONSLEER in charge
- 253A-253B. Seminar in Special Fields in Botany. (1-1) Yr.
Mr. SPONSLEER in charge
- 278A-278B. Research in Botany. (2-5; 2-5) Yr. Mr. SPONSLEER in charge

ZOOLOGY

- LOYE HOLMES MILLER, Ph.D., Professor of Biology.
 BENNET M. ALLEN Ph.D., Professor of Zoölogy.
 ALBERT W. BELLAMY, Ph.D., Associate Professor of Zoölogy.
 GORDON H. BALL, Ph.D., Assistant Professor of Zoölogy.
 EDGAR L. LAZIER, Ph.D., Assistant Professor of Zoölogy.
 RAYMOND B. COWLES, Ph.D., Assistant Professor of Zoölogy.
 RUTH ANDERSON, Ph.D., Assistant Professor of Zoölogy.
 SARAH ROGERS ATSAIT, Ph.D., Assistant Professor of Zoölogy.
 EMILY H. BARTLETT, Ph. D., Instructor in Biology.
 WALTER MOSAUER, M.D., Ph.D., Instructor in Zoölogy.
 A. MANDEL SCHECHTMAN, Ph.D., Instructor in Biology.
 BORIS KRICHESKY, M.A., 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 64.

Preparation for the Major.—Zoölogy 1A-1B, and high school chemistry or Chemistry 2A. 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 related courses in bacteriology, biochemistry, botany, entomology, genetics, paleontology, physiology, psychology, or physical chemistry.

Curriculum for Medical Technicians.—For details, see page 71.

Laboratory Fees.—Physiology 1, 2, \$3; Zoölogy 1A, 1B, \$3; 1C, \$2; 4, \$5; 35, 100A, 100C, 105, \$3; 106, \$7.50; 107C, \$5; 111C, \$3; 112, \$2; 113D, \$2.50; 199A, 199B, \$3.

ZOOLOGY

LOWER DIVISION COURSES

- 1A. General Zoölogy. (5) I. Mr. BALL, Mr. KRICHESKY
 Lectures, M W, 8; quiz, one hour; laboratory, six hours; one required field trip. Fee, \$3.
 An introduction to the facts and principles of animal biology.
- 1B. General Zoölogy. (5) II. Mr. LAZIER, Mr. KRICHESKY
 Lectures, M W, 8; 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.
 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.
 Not open to students who have taken Zoölogy 1B at this University.

4. Microscopical Technique. (2) I, II. Miss BARTLETT

Laboratory, six hours; assigned readings.

Prerequisite: course 1A and high school chemistry. Fee, \$5.

The preparation of tissues for microscopical examination.

35. General Human Anatomy. (3) II. Miss ATSATT

Lecture, Tu Th, 11; laboratory, three hours. Fee, \$3.

Prerequisite: sophomore standing; course 1A or Biology 1.

UPPER DIVISION COURSES

- 100A. Genetics. (4) I. Mr. BELLAMY

Lectures, two hours; seminar, one hour; laboratory, six hours.

Prerequisite: course 1B or Botany 2 or the equivalent, and junior standing. Fee, \$3.

The student is given an opportunity to become familiar with the principles of heredity and research methods in genetics.

- 100B. Advanced Genetics. (2) II. Mr. BELLAMY

Lectures, two hours; seminar, one hour.

Prerequisite: course 100A.

A continuation of 100A with special reference to experimental evolution.

May be taken with 100C.

- 100C. Advanced Genetics Laboratory. (2) II. Mr. BELLAMY

Laboratory, six hours.

Prerequisite or concurrent: course 100B. Fee, \$3.

101. Physiological Biology. (2) I. Mr. BELLAMY

Prerequisite: Chemistry 8 and 9, or the equivalent.

Lectures, readings, and demonstrations of certain physico-chemical processes and the principles of living matter.

103. Experimental Zoölogy. (2) II. Mr. ALLEN

Prerequisite: course 1A.

Lectures, reports on articles in scientific journals and special problems.

105. Mammalian Embryology. (3) I, II. Mr. ALLEN

Lecture, one hour; laboratory, six hours.

Prerequisite: course 1A and either 1B or 35. Fee, \$3.

106. Comparative Anatomy of the Higher Vertebrates. (4) I. Mr. LAZIER

Lecture, two hours; laboratory, six hours.

Prerequisite: course 1A-1B (including embryology) and junior standing. Fee, \$7.50.

A study of the structural relationships of the vertebrates. Dissection of the elasmobranch, amphibian, and mammal.

107. Cytology. (2) I. Mr. ALLEN

Prerequisite: course 1A.

Lectures and recitations.

The structure and activities of the cell, especially in development, in sex determination, and in heredity.

- 107c. Cytology Laboratory. (2) I. Mr. ALLEN
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) II. Mr. LAZIER
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
- 113d. Vertebrate Zoölogy. (2) II. Mr. COWLES
Lectures, laboratory, and field work.
Prerequisite: course 1A-1B. Fee, \$2.50.
Ecology, life history, and taxonomy of the cold-blooded vertebrates.
- 199A-199B. Problems in Zoölogy. (2-2) Yr. Mr. MILLER and the STAFF
Prerequisite: course 1A-1B and junior standing, with such special preparation as the problem may demand. Fee, \$3 per half-year.

GRADUATE COURSES

- 251A-251B. Seminar in Zoölogy. (1-2; 1-2) Yr.
Mr. ALLEN, Mr. BALL, Mr. BELLAMY, Mr. MILLER
- 274A-274B. Research in Zoölogy. (2-5; 2-5) Yr.
Mr. ALLEN, Mr. BALL, Mr. BELLAMY, Mr. MILLER

BIOLOGY

LOWER DIVISION COURSES

1. Fundamentals of Biology. (3) I, II. Mr. BELLAMY, Mr. COWLES, Mr. HAUPT
Students who have taken or are taking Botany 1 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. One field trip is required.

***10. Fundamentals of Biology: Laboratory and Field. (1) I, II.**

Prerequisite or concurrent: Biology 1.

12. General Biology. (3) II. M W F, 10.

Mr. COWLES, Mr. MILLER

Prerequisite: Biology 1, Botany 1, or Zoölogy 1A.

A course in systematic and ecologic biology with emphasis on the local environment.

Lectures, readings, reports on materials and field observations.

Three lectures and one demonstration hour each week with two required field trips.

PALEONTOLOGY†**LOWER DIVISION COURSE****1. General Paleontology. (2) I. Tu Th, 10.**

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.

UPPER DIVISION COURSE**104. Vertebrate Paleontology. (3) I.**

Mr. MILLER

Lecture, one hour; laboratory, six hours.

Prerequisite: Zoölogy 1A-1B.

A study of the fossil land vertebrates of the western hemisphere with reference to the present faunas and distribution.

PHYSIOLOGY‡**LOWER DIVISION COURSES****1. General Human Physiology. (3) I.**

Miss ATSATT

Lectures, Tu Th, 11; laboratory, three hours.

Prerequisite: Chemistry 2A-2B or high school chemistry. Fee, \$3.

Majors in zoölogy and students in the pre-medical and pre-dental curricula are admitted only upon the request of their advisers.

2. Human Physiology. (2) II.

Miss ATSATT

Lecture, W, 11; Laboratory, three hours.

Prerequisite: Physiology 1 or Zoölogy 1B. Fee, \$3.

* Not offered, 1935-36.

† Courses in Invertebrate Paleontology are offered by the Department of Geology (p. 146).

‡ 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.

MATHEMATICS

EARLE R. HEDRICK, Ph.D., Professor of Mathematics.

GEORGE E. F. SHERWOOD, Ph.D., Professor of Mathematics.

GLENN JAMES, Ph.D., Associate Professor of Mathematics.

PAUL H. DAUS, Ph.D., Associate Professor of Mathematics.

WILLIAM M. WHYBURN, Ph.D., Associate Professor of Mathematics.

¹RAYMOND GARVER, Ph.D., Associate Professor of Mathematics.

HARRIET E. GLAZIER, M.A., Assistant Professor of Mathematics.

GUY H. HUNT, C.E., Assistant Professor of Applied Mathematics.

EUPHEMIA R. WORTHINGTON, Ph.D., Assistant Professor of Mathematics.

WENDELL E. MASON, M.S.E., M.E., Assistant Professor of Applied Mathematics.

CLIFFORD BELL, Ph.D., Assistant Professor of Mathematics.

HARRY M. SHOWMAN, E.M., M.A., Lecturer in Mathematics and Registrar.

Letters and Science List.—All undergraduate courses in mathematics except 19, and all undergraduate courses in civil engineering, are included in the Letters and Science List of Courses. For regulations governing this list, see page 64.

Preparation for the Major.—Required: courses C (or the equivalent), 8, 5, 6, 9A and 9B with an average grade of C, except that students who have completed two years of high school algebra and also trigonometry may be excused, upon examination, from course 8. Courses 5, 9A, 9B, 109, may be replaced, by permission, by the equivalent courses 3A, 3B, 4A, 4B respectively. Recommended: physics, astronomy, and a reading knowledge of French and German.

The Major.—Courses 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 C in upper division courses in mathematics.

Students who are preparing to teach mathematics in high school will probably wish to elect courses 101, 102, 104, 190.

Pre-Commerce.—Freshmen in this curriculum are required to take courses 8 and 2, except that students who have completed two years of high school algebra may be excused, upon examination, from course 8.

Pre-Engineering and Pre-Mining.—The University of California at Los Angeles offers the first two years of the curricula of the Colleges of Engineering and Mining in Berkeley. Students intending to pursue their studies in the engineering colleges at Berkeley should consult the departmental pre-engineering adviser before making out their programs.

The minimum requirements for admission to the courses 3A-3B, 4A-4B or to 3A, 3C-4B are one and one-half years of algebra, plane geometry, plane

¹ In residence first half-year only, 1985-86.

trigonometry, and course 8 unless excused as noted above. Prospective engineering students are urged, however, to add 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

Students who have not had trigonometry in the high school must elect course C before they will be admitted to any further work except course 8 or course 2.

- C. Trigonometry. (2) I, II. Tu Th, 10, 11. Mr. BELL, Miss GLAZIER
Prerequisite: high school geometry and one and one-half years of elementary algebra or course 8.
Not open to students who have had trigonometry in high school.
- F. Spherical Trigonometry. (1) I, II. Mr. WHYBURN
Prerequisite: plane trigonometry.
2. Mathematics of Finance. (3) I, II. M W F, 10. Mr. DAUS
Prerequisite: course 8.
- 3A. Plane Analytic Geometry. (3) I, II. M W F, 8, 9, 12. Mr. BELL, Mr. MASON
Prerequisite: courses C and 8 or the equivalents.
- 3AB. Analytic Geometry and First Course in Calculus. (6) II. Mr. DAUS
M Tu W Th F, 7:45.
Prerequisite: courses C and 8, or the equivalents.
This course is equivalent to Mathematics 3A and 3B (or 5 and 9A, by permission).
- 3B. First Course in Calculus. (3) II. Mr. HUNT, Miss GLAZIER
Prerequisite: course 3A or its equivalent.
- 3C. First and Second Courses in Calculus. (6) I. Mr. SHERWOOD
M Tu W Th F, 7:45.
Prerequisite: course 3A.
This course is equivalent to courses 3B and 4A (or to 9A and 9B, by permission). Engineers must take course 4B also.
- 4A. Second Course in Calculus. (3) I. M W F, 10. Mr. GARVER
Prerequisite: course 3B.
- 4B. Third Course in Calculus. (3) II. M W F, 9, 11. Mr. JAMES
Prerequisite: course 4A.
Course 4B may be substituted for Mathematics 109 with the approval of the department.
5. Analytic Geometry. (3) I, II. Mr. MASON, Miss WORTHINGTON
Prerequisite: courses C and 8 or the equivalent.
This course is essentially equivalent to course 3A.

6. Advanced Geometry. (2) I, II. Tu Th, 10. Mr. JAMES

Prerequisite: course 3A or 5, and consent of instructor.

7. *Elem. Math for Social Sciences (3) II*

8. College Algebra. (3) I, II. M Tu W Th F, 8, 9, 12.

Mr. SHERWOOD, Mr. HUNT and the STAFF

Prerequisite: at least one year of high school algebra.

Within a few weeks the class meetings will be reduced to three a week for all students except the minority who require extra review and drill.

~~9A. First Course in Calculus. (3) I. M W F, 10, 11. Mr. WHYBURN~~

Prerequisite: course 5 or 3A.

This course is essentially equivalent to course 3B.

~~9B. Second Course in Calculus. (3) II. M W F, 9, 10, 11. Mr. GARVER~~

Prerequisite: course 9A or 3B.

This course is essentially equivalent to course 4A.

10A. Vectors and Allied Topics. (2) I. Mr. BELL

Prerequisite or concurrent: course 4A.

Prescribed for pre-engineering students in the mechanical and electrical engineering curricula.

10B. Elementary Differential Equations and Applications. (2) II. Mr. BELL

Prerequisite or concurrent: course 4B.

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.

19. Foundations of Arithmetic. (2) I, II.

Prerequisite: sophomore standing. Miss GLAZIER, Miss WORTHINGTON

UPPER DIVISION COURSES

Students may not elect upper division courses unless they have taken or are taking Mathematics 9A-9B, or the equivalent.

101. Elementary Geometry for Advanced Students. (3) I. M W F, 11.

Prerequisite: course 5.

Mr. DAUS

Selected topics in elementary geometry, with particular emphasis on recent developments.

102. Elementary Algebra for Advanced Students. (3) II. M W F, 2.

Prerequisite: courses 8 and 9A-9B.

Miss WORTHINGTON

Selected topics in algebra, with particular reference to modern points of view.

104. History of Mathematics. (3) I. M W F, 2.

Miss GLAZIER

A non-technical course open to students who have some knowledge of the fundamental ideas of analytic geometry and calculus.

109. Third Course in Calculus. (3) I. M W F, 9, 11. Mr. GARVER
Prerequisite: course 9A-9B.
Course 4B may be substituted for Mathematics 109 with the approval of the department.
111. Theory of Algebraic Equations. (3) I, II. M W F, 2. Mr. JAMES, Mr. BELL
Prerequisite: courses 8, 9A-9B.
- 112A-112B. Introduction to Higher Geometry. (2-2) Beginning each half-year. Mr. DAUS, Mr. SHERWOOD
Tu Th, 11.
Prerequisite: courses 5, 6, 9A-9B.
113. Synthetic Projective Geometry. (3) II. Mr. DAUS
Prerequisite: course 112A-112B, or consent of the instructor.
- *114. Modern Geometry. (3) II. Mr. SHERWOOD
Prerequisite: courses 6, 112A-112B.
- *115. Theory of Numbers. (3) II. Mr. DAUS
119. Differential Equations. (3) I, II. M W F, 9. Mr. BELL, Mr. GARVER
Prerequisite: course 109 or its equivalent.
Not open for full credit to students who have had course 10B.
121. Mathematical Theory of Statistics. (3) I. Mr. GARVER
Prerequisite: course 109 or its equivalent.
- 122A-122B. Advanced Calculus. (3-3) Yr. M W F, 10. Mr. HEDRICK
Prerequisite: course 109.
124. Vector Analysis. (3) I. Mr. JAMES, Mr. WHYBURN
Prerequisite: course 109 and one year of college physics.
125. Analytic Mechanics. (3) II. Mr. WHYBURN
Prerequisite: course 109 or its equivalent, and Physics 105.
190. The Teaching of Mathematics. (3) II. M W F, 12. Miss GLAZIER
Prerequisite: course 9A-9B or its equivalent.
A critical inquiry into present-day tendencies in the teaching of mathematics.
199. Special Problems in Mathematics. (3) I, II. The STAFF
Prerequisite: consent of the instructor.

GRADUATE COURSES

211. Higher Plane Curves. (3) I. Mr. DAUS
- *215. Non-Euclidean Geometry. (3) II. Mr. DAUS
216. Differential Geometry. (3) II. Mr. JAMES
- 221A-221B. Higher Algebra. (3-3) Yr. Mr. GARVER
- 224A-224B. Functions of a Complex Variable. (3-3) Yr. Mr. HEDRICK
- 242A-242B. Functions of a Real Variable. (3-3) Yr. Mr. WHYBURN

* Not offered, 1935-36.

CIVIL ENGINEERING*

11A-11B. Plane Surveying Lectures. (2-2) Beginning each half-year.
Mr. HUNT, Mr. MASON
Prerequisite: trigonometry and geometric drawing.

11A-11B. Plane Surveying Field Practice. (1-1) Beginning each half-year.
M or W, 2-5; Tu or Th, 1-4; S, 8-11. Mr. HUNT, Mr. MASON
Prerequisite or concurrent: course 11A-11B. Fee, \$5 per half-year.

3. Summer Class in Plane Surveying. (3) Mr. MASON
Prerequisite: course 11A-11B. Fee, \$25.
Four weeks of field work after the close of the school year.

8. Materials of Engineering Construction. (2) I, II. Tu Th, 12. Mr. MASON
Prerequisite: sophomore standing.

* First two years only.

MECHANIC ARTS

HAROLD W. MANSFIELD, Assistant Professor of Mechanic Arts and Director of Shops.

FOSS R. BROOKWAY, Associate in Mechanic Arts.

JAMES W. MARSH, Associate in Mechanic Arts.

ADRIAN D. KELLER, M.A., Associate in Mechanic Arts.

CHARLES H. PAXTON, B.S., Associate in Mechanic Arts.

THOMAS A. WATSON, Associate in Mechanic Arts.

WENDELL E. MASON, M.S.E., M.E., Assistant Professor of Applied Mathematics.

THE TEACHERS COLLEGE

Preparation for the Major.—Mechanical Engineering D; Mechanic Arts 11, 14, 15A-15B, 16, 17A, 18A, 21; recommended, mathematics and physics.

The Major, leading to the Secondary Special Credential in Industrial Arts Education.—Thirty units of work approved by the department, of which twenty-four units must be in upper division courses.

The Minor in Education.—Education 103, 160, 164, 170; Directed Teaching, six to ten units; Mechanic Arts 190.

Special Secondary Credential in Vocational Arts.—A two-year curriculum leading to the secondary special teaching credential in vocational arts is maintained under the provisions of the Smith-Hughes Act. This course is open to experienced journeymen workmen who have had two years of schooling beyond the eighth year. All applications must be approved by the Assistant Director of the Division of Vocational Education. A statement of the requirements for the Limited Credential in Industrial Arts Education will be found in Bulletin H-2 published by the State Board of Education.

THE COLLEGE OF LETTERS AND SCIENCE*

Letters and Science List.—Mechanical Engineering D, 1, 2, and 6 are included in the Letters and Science List of Courses. For regulations governing this list, see page 64.

Laboratory Fees.—Mechanic Arts 11, 14, 15A, 17A, 17B, 18A, 18B, 21, 31, 101A, 101B, 102, 104A, 104B, 105, 107A, 107B, 112, 114, 115, \$3; Mechanical Engineering 10B, \$5.

* The University of California at Los Angeles offers the first two years in preparation for admission to the junior year of the College of Engineering in the University at Berkeley. Students intending to pursue their studies in this college should present their programs for approval to the pre-engineering adviser.

MECHANICAL ENGINEERING

- D. Engineering Drawing. (2) I, II. Mr. MANSFIELD
 Section 1, Tu Th, 9; Section 2, Tu Th, 10. Drafting, four hours to be arranged.
 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. M W F, 11. 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, Section 1, Tu, 10; Section 2, Tu, 11. Drafting, afternoons 1-4 (six hours to be arranged).
6. Machine Drawing. (3) I, II. Mr. PAXTON
 Lecture, Th, 11. Drafting, afternoons 1-4 (six hours to be arranged).
 Design and delineation of simple machine parts in the drafting room, with special emphasis upon the production of drawings which conform to standard practice.
- 10B. Treatment of Engineering Materials. (2) I, II. Mr. MASON, Mr. WATSON, Mr. KELLER
 Prerequisite: Civil Engineering 8. Fee, \$5.

MECHANIC ARTS

LOWER DIVISION COURSES

11. Bench Work in Wood. (2) I. Mr. KELLER
 Fee, \$3.
 This course duplicates course 10 given prior to September, 1935.
 Fundamental hand tool and joinery operations, including the use of saw, plane, chisels, and the layout and development of all joints essential in wood construction.
 Operation of speed lathe, including spindle, faceplate and chuck turning.
- 13A-13B-13C. Printing. (2-2-2) Three half-years. Mr. BROCKWAY
 This course duplicates 20C-20D-20E given prior to September, 1935.
 Principles, maintenance, and operation of the school print shop. Problems and practice in job printing, type arrangement, and newspaper make-up; type and equipment.
14. Storage Batteries. (2) I. Mr. MARSH
 Fee, \$3.
 This course duplicates course 40 given prior to September, 1935.
 Lead-burning, battery construction, battery charging, equalizing, treatments, cycling, testing; battery testing by use of cadmium electrode, hydrometer, high rate discharge, and the new S.A.E. methods; the chemical reactions and make-up of the battery; plate formation, separators, and electrolytes.

- 15A-15B. The Automobile. (3-3) Yr. Mr. BROCKWAY, Mr. MARSH
 This course duplicates course 65A-65B given prior to September, 1935.
 15A. Principles of reconstruction and maintenance. Cut-away and dry chassis units used. Take-down and assembly of automotive units; adjustment and operation of internal-combustion engines; use and construction of automotive measuring devices. Fee, \$3.
 15B. Principles of design and operation of internal-combustion engines, clutches, gear sets, frames, springs, wheels, and tires, with demonstrations and instruction in adjustments and general upkeep of the automobile.
16. Architectural Drawing. (2) I. Mr. MANSFIELD
 This course duplicates course 51 given prior to September, 1935.
 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.
- 17A-17B. Machine Shop. (2-2) Yr. Mr. WATSON
 Fee, \$3.
 This course duplicates course 75A-75B given prior to September, 1935.
 Elementary machine shop practice; fundamental operations and tool processes; operations of standard power tools. Personal or research development problems considered.
- 18A-18B. Sheet Metal. (2-2) Yr. Mr. MANSFIELD, Mr. MARSH
 Fee, \$3 per half-year.
 This course duplicates course 80A-80B given prior to September, 1935.
 Work in tin plate, galvanized iron, and other metals; development of patterns in drafting room; use, care, and upkeep of bench and machine equipment.
- 19A-19B. Related Technical Subjects. (3-3) Beginning each half-year.
 Mr. PAXTON, Mr. MARSH
 This course duplicates course 92A-92B given prior to September, 1935.
21. General Woodwork. (2) II. Mr. KELLER
 Fee, \$3.
 This course duplicates course 11 given prior to September, 1935.
 Fundamentals of construction as applied to small boats, paddle boards, and surf boards. Building construction including simple form building, framing, and use of the steel square.
31. Elements of Machine Woodwork. (2) I. Mr. KELLER
 Fee, \$3.
 This course duplicates course 12 given prior to September, 1935.
 Adjustment, maintenance, and use of stationary and portable woodworking machinery, including circular saw, band saw, jointer, router, and shaper. Development of projects and problems as required.

UPPER DIVISION COURSES

101A-101B. Cabinet Work. (3-3) Yr.

Mr. KELLER

Fee, \$3 per half-year.

This course duplicates course 100A-100B given prior to September, 1935.

101A. Case and furniture making; construction and use of jigs, methods of laying out various parts, preparation and application of paints, stains, and varnishes in finishing and refinishing. Development of models showing correct construction of table corners, rails, legs, and drawers. Brief presentation of period furniture.

101B. Advanced cabinet work and furniture making; brief discussion of design as applied to furniture. The use of carving, inlay, marquetry, upholstering tools, materials and equipment. Construction of advanced projects.

102. General Shop. (2) I.

Mr. BROCKWAY

Fee, \$3.

This course duplicates course 130 given prior to September, 1935.

Analysis and construction of "projects" involving combined use of various tools, materials, and processes.

104A-104B. Applied Electricity. (2-2) Yr.

Mr. MARSH

Fee, \$3 per half-year.

This course duplicates course 140A-140B given prior to September, 1935.

104A. Direct current electric and magnetic circuits; calculation of field and armature winding; principles of motors and generators; wire splicing, construction of circuits and various projects.

104B. Induction, inductance, alternating current generators and motors; single, two, and three phase currents, star and delta connections, transformers; calculations for winding transformers; construction of projects involving the use of alternating current electricity. Individual problems considered.

105. Automotive Laboratory. (3) I.

Mr. MARSH

Fee, \$3.

This course duplicates course 161 given prior to September, 1935.

The Diesel engine, two and four stroke; marine and stationary, automotive and aeronautic types; governors and fuel nozzles; air and airless injection; the use of card indicators and pyrometers in operation; petroleum, fuel and lubricants, laboratory testing of the same; gasoline testing for anti-knock qualities.

106A-106B. Industrial Arts Drawing. (2-2) Yr.

Mr. MANSFIELD

This course duplicates course 150A-150B given prior to September, 1935.

Technical sketching, lettering, assembly and detail drawings, tracing and reproduction; drawing and design of shop projects suitable for high school classes.

107A-107B. Machine Shop. (2-2) Yr.

Mr. WATSON

Prerequisite: course 17A-17B. No prerequisite for graduate students on consent of instructor. Fee, \$3 per half-year.

This course duplicates course 176A-176B given prior to September, 1935.

Advanced machine shop practice; machine construction and repair; tool-making; use of precision instruments; development work on research apparatus or personal problems.

112. General Metal Work. (2) II. Mr. BROCKWAY
Fee, \$3.
This course duplicates course 131 given prior to September, 1935.
A study of metals and metal working methods; heat treatments; oxy-acetylene welding, brazing, forging, and plate metal working.
114. Electric Apparatus. (2) II. Mr. MARSH
Prerequisite: course 104A-104B. Fee, \$3.
This course duplicates course 141 given prior to September, 1935.
Electrical instruments and meters, their principles, use, and installation; operation of complete student plant including alternators, transformers, exciters, motors, and synchronous condenser; switchboard work, three phase, single phase and three wire systems of distribution. Lectures, demonstrations, and construction work.
115. Automobile Reconstruction. (3) II. Mr. BROCKWAY
Fee, \$3.
This course duplicates course 160 given prior to September, 1935.
Principles of automobile repair and maintenance for the technical student and individual car owner. Engine reconstruction; trouble location, corrective methods. Modern automotive machine tool use; cylinder grinding, piston fitting and valve reconditioning. Fender and body maintenance.
125. Tractors. (3) Mr. BROCKWAY
Fee, \$3.
Diesel and gasoline tractors; principles of operation in laboratory and field; fuels and lubricants; drives and controls. Practice in taking down, assembling, and adjusting. Approved methods of maintenance.
190. Organization and Administration of Industrial Arts Education. (2) II. Mr. MANSFIELD

MILITARY SCIENCE AND TACTICS

JOHN S. UPHAM, Colonel, U. S. Army, Professor of Military Science and Tactics.

FRANK J. PEARSON, Captain, U. S. Army, Assistant Professor of Military Science and Tactics.

JOHN C. NEWTON, Captain, U. S. Army, Assistant Professor of Military Science and Tactics.

OLIVER E. TRECHTER, Major, U. S. Army, Assistant Professor of Military Science and Tactics.

WYNOT B. IRISH, Captain, U. S. Army, Assistant Professor of Military Science and Tactics.

—————, Assistant Professor of Military 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 64.

The University of California at Los Angeles does not offer a major in military science and tactics in the College of Letters and Science. In 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 of the Departments at Berkeley.

The courses in military training are those prescribed by the War Department for infantry 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 Comptroller.

The student who is found by the Medical Examiner to be ineligible for enrollment 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, viz., the basic course and the advanced course.

BASIC COURSE

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. UPHAM, Mr. NEWTON, Mr. PEARSON, Mr. TRECHTER,
Mr. IRISH, —

† Field, M F, 8, 11, 1.

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, leadership to include the duties of a private.

2A-2B. Basic Military Training. (1½-1½) Yr.

Mr. UPHAM, Mr. NEWTON, Mr. PEARSON, Mr. TRECHTER,
Mr. IRISH, —

† Field, M F, 8, 11, 1.

Instruction in military history, characteristics of infantry weapons, automatic rifle, musketry, scouting and patrolling, combat principles of the squad and section, leadership to include the duties of a corporal.

ADVANCED COURSE

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 of California at Los Angeles 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 \$72.00 per 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 R. O. T. C. 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)

† Each student must enroll for two hours of field instruction and one hour of class instruction each week.

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 prescribed for the seventh enlisted grade of the regular army. 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. PEARSON

Tu W Th, 8, 11.

Instruction and practice in the duties of officers in connection with the basic course; instruction in pistol and rifle marksmanship, howitzer company weapons, aerial photographs, combat principles of the rifle platoon, leadership to include duties of the sergeant.

103B. Advanced Infantry Training. (3) I, II. Mr. NEWTON

Tu W Th, 8, 11.

Instruction and practice in duties of an officer in connection with the basic course; instruction in machine guns, combat principles of machine gun and rifle platoon, leadership to include duties of the company officer.

104A. Advanced Infantry Training. (3) I, II. Mr. TRECHTER, Mr. IRISH

Tu W Th, 8, 11.

Instruction and practice in the duties of an officer in connection with the basic course; instruction in military history and military law, combat principles of rifle and machine gun platoon, leadership to include duties of company officer and battalion staff.

104B. Advanced Infantry Training. (3) I, II. Mr. TRECHTER, Mr. IRISH

Tu W Th, 8, 11.

Instruction and practice in the duties of an officer in connection with the basic course, instruction in company administration and supply, combat principles to include rifle and machine gun company and howitzer platoon, tanks and mechanization, infantry field signal communications, leadership to include duties of company officers and battalion staff.

Students who satisfactorily complete a course in a Reserve Officers' Training Corps or a military training summer comp conducted by the United States Government may receive credit toward graduation at the rate of one-half unit per 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.

MUSIC*

THEODORE STRARNS, M.A. (Wurzburg), Professor of Music.

FRANCES A. WRIGHT, Associate Professor of Music.

LEROY W. ALLEN, M.A., Assistant Professor of Music.

_____, Associate in Music.

SQUIRE COOP, Lecturer in Music.

ALEXANDER SCHREINER, Lecturer in Music and University Organist.

HELEN CHUTE DILL, M.A., Supervisor of Training, Music.

LAVERNA L. LOSSING, M.A., Supervisor of Training, Music.

THE TEACHERS COLLEGE

Preparation for the Major.—Courses 1A-1B, 2A-2B, 7A-7B, 10A-10B, 35A-35B.

The Major, leading to the Special Secondary Credential in Music.—Courses 101A-101B, 105A-105B, 108A-108B, 109, 111A-111B, 114A-114B.

The Minor in Education.—Education 103, 170; Directed Teaching, 6-10 units; Music 112A-112B.

THE COLLEGE OF LETTERS AND SCIENCE†

Letters and Science List.—Courses 1A-1B, 2A-2B, 10ABCD, 15A-15B, 16A-16B, 17A-17B, 35A-35B, 37A-37B, 101A-101B, 105A-105B, 110, 111A-111B, 116A-116B, 118ABCD, and 119A-119B are included in the Letters and Science List of Courses. For regulations governing this list, see page 64.

LOWER DIVISION COURSES

1A-1B. Solfeggio. (3-3) Yr.

Miss WRIGHT

Elementary theory, dictation, and music reading. Basic course for the major in music.

Elementary theory: preparation for harmony; working knowledge of major and minor scales; diatonic chord lines and intervals.

Dictation: one, two, and three part melodic dictation.

* All entering students registering as majors in Music on and after July 1, 1935, will be required to pass entrance examinations as a basis for admission to major courses in the department, regardless of courses or training previously taken.

Failure to pass such examinations will not affect the student's matriculation or general status in the University, but may make it necessary for him to secure further training in music or to choose another major.

In addition to the examinations, all prerequisites must be met as stated in the 1935-36 General Catalogue.

† The University of California at Los Angeles does not offer a major in music in the College of Letters and Science. Students wishing to satisfy the requirements for a major in music are referred to the General Catalogue of the Department at Berkeley.

- 2-2
- 2A-2B. The History and Appreciation of Music. ~~(3-3)~~ Yr. Mr. SCHREINER
The consideration of music from formal, esthetic, and historical stand-
points.
- †7A-7B. Elementary Voice. (2-2) Yr. Mrs. DILL
Diction, how to use the voice lightly, lectures on child psychology and on
the handling of children's voices.
- 9A-B-K-B *Chorus* | *un. ca.*
10A-B-C-D. Orchestral Practice. (2 units each half-year.) Mr. COOP
- 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
- 18A-B *Elem. Piano* (0) *Diaplan*
35A-35B. Harmony. (3-3) Yr. Mr. SCHREINER
Prerequisite: course 1A-1B; also a knowledge of harmony up to the in-
versions of the triads.
This course duplicates course 55A-55B given prior to September, 1935.
- 37A-37B. Piano, Intermediate. (2-2) Yr. Miss WRIGHT
- 46A-46B. ^{c-d} Concert Band Practice. (1¹/₂-1¹/₂) Yr. Mr. ALLEN
This course duplicates course 56A-56B given prior to September, 1935.

UPPER DIVISION COURSES

A certain degree of proficiency in piano playing is prerequisite to junior standing in the Department of Music.

- 101A-101B. Counterpoint and Form. ⁽³⁻³⁾ (2-2) Yr. Mr. STEARNS
Prerequisite: course 35A-35B.
Practice in one of the technical processes of music writing.
- 114A-B *Form & Analysis* (2-2)
105A-105B. Composition. (2-2) Yr. Mr. STEARNS
Prerequisite: course 101A-101B; senior standing.
Vocal and instrumental composition in the smaller forms.
- †108A-108B. Advanced Voice. (2-2) Yr. Mr. COOP
Prerequisite: course 7A-7B.
Adult voice training, associated with ensemble singing.
109. Conducting. (1) I. Mr. COOP
Prerequisite: courses 1A-1B., 35A-35B.
The theory and practice of conducting choral and orchestral organizations.
- 110A-110B. String Ensemble. (1-1) Yr. Mr. STEARNS
Prerequisite: permission of the instructor.
- 111A-111B. The Great Composers. (2-2) Yr. Mr. STEARNS
Prerequisite: junior standing.

† Restricted to major students in music.

112A-112B. Music Education. (3-3) Yr.

Miss WRIGHT

Prerequisite: junior standing.

Organization and administration of music in elementary and secondary schools.

114A-114B. Instrumentation. (2-2) Yr.

Mr. COOP

Prerequisite: course 35A-35B and senior standing.

The theoretical study of the instruments of the orchestra, the reading of orchestral scores, and an introduction to orchestration. The writing of orchestral scores.

116A-116B. Piano, Interpretation. (1-1) Yr.

Mr. STEARNS

Prerequisite: permission of the instructor.

118A-B-O-D. A Cappella Choir. (2 units each half-year.)

Mr. COOP

Prerequisite: open to all students by permission of the instructor.

The study and practice of the best choral and a cappella music for public performance. Lectures on voice, ensemble singing, and the esthetics of choral music; with emphasis on the polyphonic music of the classical period.

119A-119B. ^{Wind} Wind Ensemble. (2-2) Yr.

Mr. ALLEN

120A-B

Brass Ensemble. (1-1)

122A-B

Double

PROFESSIONAL COURSE

Canon & Fugue

360A-360B. Elementary Music Education. (2-2) Yr.

Prerequisite: sophomore standing.

Miss LOSSING, Mrs. DILL

This course duplicates course 60A-60B given prior to September, 1934.

A course in professional subject matter required of all candidates for the general elementary credential.

PHILOSOPHY

CHARLES H. RIEBER, Ph.D., LL.D., Professor of Philosophy and Dean of the College of Letters and Science.

JOHN ELOF BOODIN, Ph.D., Professor of Philosophy.

DONALD A. PIATT, Ph.D., Professor of Philosophy.

HUGH MILLER, Ph.D., Associate Professor of Philosophy.

DONALD C. WILLIAMS, Ph.D., Assistant Professor of Philosophy.

—————, Instructor in Philosophy.

ERNEST C. MOORE, Ph.D., LL.D., Professor of Education, Vice-President and Provost, University of California at Los Angeles.

KATE GORDON, Ph.D., Professor of Psychology.

The department offers upper division courses of two types:

(1) Courses dealing with the principles of wide fields of study and showing the interrelations of the special studies pursued in other departments. This type includes courses 104A-104B, 112, 121, 146, 150, 151, 152, 153, 164, 173. These are open to students of junior standing who, in the judgment of the instructors are adequately prepared by fundamental work in this or other departments. Such courses should be chosen with reference to the student's major interest.

(2) Courses devoted to more special studies in the history, problems, and theories of philosophy, and intended primarily for the student majoring in this subject. This type includes courses 102, 115, 116, 117, 119, 122, 123, 141, 161.

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 64.

Preparation for the Major.—Twelve units of lower division courses in philosophy, including course 3A-3B.

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 department 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.

1A-1B. Logic. (3-3) Yr.

Mr. RIEBER

1A. Deductive logic. Division, definition, the forms and transformations of judgments, the syllogism.

1B. Inductive logic. The presuppositions, methods, and limits of inductive sciences.

- 2A-2B. Introduction to Philosophy. (3-3) Yr. Mr. PIATT
Elementary survey of the general problems of philosophy and of the fundamental types of philosophy.
- 3A-3B. History of Philosophy. (3-3) Yr. Mr. BOODIN, Mr. MILLER, Mr. WILLIAMS
An introductory course, tracing the thought of the major philosophers of the ancient and modern world.
40. Problems of Ethics and Religion. (2) I. Mr. WILLIAMS
This course duplicates course 50 given prior to September, 1935.
An introductory study of moral principles, their application, and their relation to religious belief.
41. Problems of Metaphysics and Knowledge. (2) II. _____
This course duplicates course 51 given prior to September, 1935.
An introduction to the problems of metaphysics and to central issues in theories of knowledge.

UPPER DIVISION COURSES

When prerequisites are not stated, see the explanation of types of courses on p. 181.

102. Philosophy of John Dewey. (2) I. Mr. MOORE
Prerequisite: six units of credit in philosophy.
- 104A-104B. Ethics. (3-3) Yr. Mr. PIATT
104A. Consideration of the meaning of morality, and a study of representative ethical theories.
104B. Application of ethical theory and method formulated in the first semester to current social problems.
112. Philosophy of Religion. (3) I. M W F, 2. Mr. RIEBER
A study of the nature and methods of religious knowledge. The problem of how religious truth may be known; its field and extent. The three chief avenues to religious truth: *rationalism, empiricism, mysticism*.
115. Kant. (2) II. Mr. WILLIAMS
Prerequisite: course 122 or 123.
Reading of the *Critique of Pure Reason*, together with explanatory and critical comments on Kant's main position in the fields of religion and ethics.
116. Plato. (2) I. Mr. BOODIN
Prerequisite: course 3A-3B.
The philosophy of Plato will be considered, with special attention to his idealism.
- *117. Aristotle. (2) I. Mr. BOODIN
Prerequisite: course 3A-3B.
Aristotle's philosophy and its significance for present thought.

* Not offered, 1935-36.

119. Modern Idealism. (2) I. Mr. MILLER
Prerequisite: course 3A-3B.
The historical antecedents and development of post-Kantian idealism.
121. Social and Political Philosophy. (3) I. Mr. MILLER
A study of the sources and development of our social-political institutions.
122. British Empiricism. (2) I. _____
Prerequisite: course 3A-3B.
An examination of the philosophies of Locke, Berkeley, and Hume.
123. Continental Rationalism. (3) I. Mr. WILLIAMS
Prerequisite: course 3A-3B.
The rise of modern science, and the philosophies of Descartes, Spinoza, and Leibniz.
- 124 19th Century Philos. (3) II
136A-136B. Esthetics. (3-3) Yr. Miss GORDON
A study of the appreciation of beauty and of standards of excellence in various arts. The first half-year deals with a study of the concepts of esthetics as developed in Hume, Kant, Hegel, Schiller, Croce, and others. In the second half-year concrete forms of imaginative expression are studied.
- 141A-141B. Present Tendencies of Thought. (2-2) Yr. _____
Prerequisite: course 3A-3B.
A study of contemporary movements in philosophy.
146. Philosophy of Literature. (3) II. Mr. RIEBER
Comparison between philosophical and literary expressions of typical problems of philosophy. A discussion of *idealism, realism, mysticism*, and other attitudes as expressed in literature.
150. Philosophy of Science. (2) II. Mr. PIATT
An historical enquiry into the philosophical bearing of the fundamental concepts and methods of the sciences.
151. Philosophy of Nature. (3) I. Mr. BOODIN
An interpretation of evolution and of man's place in the universe.
152. Metaphysics. (3) II. Mr. BOODIN
An examination of the chief types of theory of reality and an attempt at an idealistic synthesis.
153. Fundamental Concepts of Biology. (2) II. Mr. MILLER
An examination into the theoretical foundations of biological, psychological, and sociological science.
- *161. Epistemology. (3). Mr. WILLIAMS
Prerequisite: course 3A-3B.
The analysis of mind and knowledge, with reference to present psychological problems and to the methods of the sciences.

164. General Logic. (3) II.

Mr. WILLIAMS

A study of the system of formal logic, deductive and inductive, with special attention to newer developments in logical theory.

173. The Social Mind. (2) II.

Mr. BOODIN

The evolution and characteristics of the social mind.

199A-199B. Selected Problems in Philosophy. (2-2) Yr.

The STAFF (Mr. MILLER in charge).

GRADUATE COURSES

*204. Theory of Value. (3) II.

Mr. WILLIAMS

*214. Logical Theory. (3) I.

Mr. WILLIAMS

*251A-251B. Seminar: Concepts of Cosmology. (3-3) Yr.

Mr. BOODIN

252A-252B. Seminar: Concepts of Metaphysics. (3-3) Yr.

Mr. PIATT, Mr. BOODIN

261A-261B. Seminar: Concepts of Epistemology. (3-3) Yr.

Mr. WILLIAMS, Mr. MILLER

* Not offered, 1935-36; to be offered, 1936-37.

PHYSICAL EDUCATION FOR MEN

- WILLIAM H. SPAULDING, A.B., Director of Physical Education for Men.
 FREDERICK W. COZENS, Ph.D., Professor of Physical Education and Associate Director of Physical Education for Men.
 PAUL FRAMPTON, M.A., Associate Supervisor of Physical Education for Men.
 FRED H. OSTER, B.S., Assistant Supervisor of Physical Education for Men.
 CECIL B. HOLLINGSWORTH, Ed.B., Associate in Physical Education for Men.
 PATRICK MALONEY, Associate in Physical Education for Men.
 DONALD K. PARK, A.B., Associate in Physical Education for Men.
 WILBUR C. JOHNS, Ed.B., Associate in Physical Education for Men.
 HARRY TROTTER, Assistant in Physical Education for Men.
 PIERCE H. WORKS, A.B., Assistant in Physical Education for Men.
 SILAS GIBBS, Ed.B., Assistant in Physical Education for Men.
 JAMES G. SCHAEFFER, Assistant in Physical Education for Men.
 MERWIN S. KENDIS, Assistant in Fencing.

- 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 an individual gymnastics section of Physical Education 3.

THE TEACHERS COLLEGE

Preparation for the Major.—High school chemistry or Chemistry 2A or Zoölogy 1A; Physiology 1; Biology 1 (if Zoölogy 1A is not taken); Zoölogy 35; Physical Education 1, 3 (2 units), 5, 29A-B-C-D.

The Major, leading to the Special Secondary Credentials in Physical Education.—Courses †120, 130A-B-C-D, 131, 140, 149, 156A-156B, 182, †190, †192A-192B.

The Minor in Education.—Courses 154, 155A-155B; Education 103, 170; Directed Teaching, six to ten units.

†Courses so marked are listed under the Department of Physical Education for Women.

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 64.

LOWER DIVISION COURSES

1. Hygiene and Sanitation. (1) I, II. Th, 8. Mr. MACKINNON
- †3. Prescribed Physical Education for Freshmen and Sophomores. (½) I, II.
Mr. COZENS and the STAFF
- Baseball, basket-ball, boxing, cricket, fencing, American football, golf, gymnastics, handball, soccer, swimming, tennis, track, 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 half-year.
- Physical Education 3 may be elected by students in the junior and senior years.
5. First Aid and Bandaging. (½) II. Mr. PARK
- The care of common accidents and emergencies on the playground and athletic field.
- 20 *Fundamentals of Scouting (2) I*
- 29A-B-C-D. Practice in Athletic Activities. (1 unit each half-year.)
Mr. FRAMPTON

Required of physical education majors in their first and second years of work.

40 *Tech. of Teach. Swim. & Life Saving (2)*

UPPER DIVISION COURSES

- 130A-B-C-D. Practice in Athletic Activities. (1 unit each half-year.)
Mr. COZENS
- Required of physical education majors in their third and fourth years of work.
131. Administration of Physical Education. (3) II. Mr. COZENS
- 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) II. 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.

* 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.

† For full statement of the requirement of this course refer to page 89.

149. Kinesiology. (3) I. M W F, 8. Mr. FRAMPTON
Prerequisite: Zoölogy 35.
154. 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.
- *155A-155B. The Technique of Teaching Gymnastic Activities. (2-2) Yr. Mr. COZENS, Mr. HOLLINGSWORTH
Prerequisite: gymnastics, and boxing or wrestling.
Tactics, free exercises, apparatus, gymnastic dancing, and gymnastic games.
- 156A-156B. The Technique of Teaching Athletic Activities. (2-2) Yr. Mr. SPAULDING, Mr. COZENS, and Mr. JOHNS
Prerequisite: football, track, basket-ball and baseball.
156A. Football and basket-ball. 156B. Track and baseball.
182. Corrective Physical Education. (3) II. Mr. JOHNS
Prerequisite: course 149.
The application of massage and exercise to the treatment of orthopedic and remedial conditions. Two clinic hours per week to be arranged in addition to lecture and demonstration periods.

COURSES OFFERED IN THE

DEPARTMENT OF PHYSICAL EDUCATION FOR WOMEN

120. Principles of Physical Education. (2) II. Miss ATKINSON
190. Physiology of Exercise. (3) I. Mrs. JOHNSON
- 192A-192B. Administration of Health Education. (3-3) Yr. Miss HARSHBERGER, Mrs. JOHNSON
199. Problems in Physical Education. (2) II. Mrs. JOHNSON, Miss SHAMBAUGH, Mr. COZENS

* Not offered, 1935-36.

PHYSICAL EDUCATION FOR WOMEN

RUTH V. ATKINSON, M.A., Assistant Professor and Director of Physical Education for Women.

LUCILE R. GRUNEWALD, M.A., Assistant Director of Physical Education for Women.

M. EFFIE SHAMBAUGH, Ph.D., Assistant Professor of Physical Education for Women.

GEORGIA B. JOHNSON, Ph.D., Instructor in Physical Education for Women.

HAZEL J. CUBBERLEY, B.S., Associate Supervisor of Physical Education for Women.

MARTHA B. DEANE, B.S., Associate Supervisor of Physical Education for Women.

EDITH R. HARSHBERGER, M.A., Assistant Supervisor of Physical Education for Women.

ETHEL S. BRUCE, Associate in Physical Education for Women.

EDITH I. HYDE, M.A., Associate in Physical Education for Women.

BERNECE H. HOOPER, M.A., Associate in Physical Education for Women.

MARION S. MATTERN, M.A., Associate in Physical Education for Women.

MARJORY G. ALLEN, Ed.B., Assistant in Physical Education for Women.

LILLIAN R. TITCOMB, M.D., Physician for Women.

Physical Education 4 is prescribed for all first-year and second-year undergraduate women 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 her petition, the student will enroll in and regularly attend the required course in physical education.

Medical Examination.—New students and reëntering students must pass a medical examination upon admission. All students are given an examination each year. The medical examiner may assign students to individual physical education.

THE TEACHERS COLLEGE

Preparation for the Major.—Courses 30A-30B, 32A-32B, 33A-33B, 35, 42A-42B, 43A-43B, and one of the following sequences: (1) Chemistry 2A-2B or Physics 4A-4B; Biology 1; Zoölogy 35, Physiology 1, Home Economics 32; (2) Zoölogy 1A-1B, 106; Physiology 1, Home Economics 32.

The Major, leading to the Special Secondary Credential in Physical Education.—Physical Education 120, 140 (offered in Department of Physical Education for Men), 149, 150A-150B, 180A-180B, 181A-181B, 182, 183, 190, 192A-192B, 199.

The Minor in Education.—Education 103, 170, Directed Teaching, six to ten units, Physical Education 121A-121B, 121C-121D.

THE COLLEGE OF LETTERS AND SCIENCE*

Letters and Science List.—Courses 2, 4, 44, 104, 114A-114B, and 180B are included in the Letters and Science List of Courses. For regulations governing this list, see page 64.

LOWER DIVISION COURSES

2. Hygiene. (2) I, II. M F, 1.

Mrs. TITCOMB

†4. Prescribed Physical Education for Freshmen and Sophomores. (‡) I, II.
Miss ATKINSON and the STAFF

Practice in dancing, team games, and individual sports. The following activities are offered: natural dancing, folk dancing, character dancing, swimming, tennis, lacrosse, badminton, archery, volleyball, hockey, basketball, soccer. Students whose physical condition indicates the need of modified activity are assigned to individual physical education classes.

Classes meet twice weekly. Section assignments are made only by the department.

Course 4 may be elected for credit by students of junior and senior standing.

30A-30B. Introduction to Physical Education. (1-1) Yr.

Miss ATKINSON, Mrs. MATTERN

Not open for credit to students who took course 50A-50B prior to September, 1935.

72A-B

A discussion of the demands for the curriculum and the profession. The correlation of physical education with the fields of science, psychology, sociology, and education. Self-analysis and its importance in the development of personality. A discussion of general ethical standards for students and teachers.

Seasonal practice in tennis and swimming.

32A-32B. Folk Dancing and Folk Festivals. (1-1) Yr. Miss SHAMBAUGH

This course duplicates course 62A-62B given prior to September, 1935.

Practice in folk dancing and a study of the folk festivals as to purpose, type, source of material, organization, and administration.

33A-33B. Elementary Rhythms and Natural Dancing. (1-1) Yr. Miss DEANE

This course duplicates course 63A-63B given prior to September, 1935.

33A. Rhythmic activities for the elementary school including dramatic games, free rhythms, singing games, simple folk dances, and creative rhythms related to social study units.

33B. Practice in elementary natural dancing, including free rhythms, simple dance forms, improvisation, and dance creation. Rhythm studies with percussion instruments.

* 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 89.

35. Music Analysis. (1) I, II.

Miss DEANE

This course duplicates course 65 given prior to September, 1935.

A study of music structure in its relation to dance form. Use of percussion instruments as accompaniment for the dance.

42A-42B. Intermediate Physical Education. (1-1) Yr.

Miss ATKINSON, Miss HYDE

Not open for credit to students who took course ~~72A-72B~~ prior to September, 1935.
50A-B

The scope and extent of professional work in physical education. The significance of physical education in the school program. Standards for a modern program of physical education.

Seasonal practice in games of low organization, basketball and field hockey.

43A-43B. Athletics. (1-1) Yr.

Miss CUBBERLEY

Prerequisite: course 42A-42B or the equivalent.

This course duplicates course 73A-73B given prior to September, 1935.

An intermediate course for the development of skills in the following team sports: field hockey, basket-ball, baseball; field ball, soccer and speed-ball; lacrosse, volley-ball.

44. Principles of Health Education. (2) I, II.

Miss HARSHBERGER

A study of personal and community health problems. Reading, investigation, and reports on current practices, conferences, discussions.

UPPER DIVISION COURSES

104. Club Activities and Campercraft. (2) I, II.

Miss HOOPER

Analysis of the problems of the leader in various types of national club organizations (Girl Scouts, Girl Reserve, Camp-Fire Girls), with discussion of educational values, objectives, and program.

Study of organization of the summer and holiday camp activities and program making.

111A-111B. Physical Education in the Elementary School. (2-2) Yr.

Miss SHAMBAUGH, Miss HOOPER, Miss HARSHBERGER

Not open to students majoring in physical education.

Prerequisite: Education 100.

Organization of plays, games, and rhythmic activities. Health instruction as related to physical education.

114A-114B. Pageantry. (1-1) Yr.

Miss DEANE

114A. A comparative study of historic pageantry and the various modern forms. An analysis of these modern forms and an original manuscript from each student.

114B. Organization and production of a pageant.

Course 114B may be taken without 114A.

120. Principles of Physical Education. (2) II.

Miss ATKINSON

A study of the purposes, scope, and ideals of physical education. The objectives of physical education as related to the program of general education. General principles of teaching applicable to all activities.

121A-121B. Principles of Teaching Athletics. (2-2) Yr. Miss CUBBERLEY

Prerequisite: courses 42A-42B and 43A-43B, or the equivalent.

Analysis of problems in teaching athletic activities including fundamental techniques, game forms and advanced team play with special reference to their use in seasonal, weekly, and daily lesson planning. Advanced practice is offered in all 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.

121c-121d. Principles of Teaching Dancing. (2-2) Yr.

Miss DEANE

Prerequisite: course 35 and satisfactory completion of lower division courses in dancing.

A survey of the rhythm program from kindergarten to the university, including problem analysis, selection and organization of material, and method of presentation in folk, clog and character, and natural dancing. Practice in intermediate natural dancing.

149. Kinesiology. (3) I.

Miss GRUNEWALD

Prerequisite: Zoölogy 106 or Zoölogy 35.

A study of the joint and muscular mechanism of movements.

150 *The Princ. of Teach. Gymnastics (2) II*
180A-180B. Administration of Physical Education and Community Recreation. (2-2) Yr.

Miss ATKINSON

Prerequisite: senior standing.

180A. Administration of Physical Education.—Administrative policies of the physical education department in schools and colleges; equipment, appointment and supervision of staff; teaching load; organization and administration of activities; classification of pupils by tests and examination; grading; general office organization and administration.

180B. Administration of Community Play and Recreation.—Designed to meet the needs of workers in playgrounds, apart from the schools. Discussion for workers in industrial plants and social service institutions.

181A-181B. Organization and Management of Physical Education Activities. (2-2) Yr.

Miss CUBBERLEY, Miss DEANE

Prerequisite: courses 120, 121A-121B.

181A. A study of athletic programs in schools and colleges, including the analysis and selection of activities; measurement of achievement; evaluation of social and physical values of team games; selection and care of athletic equipment and construction and upkeep of fields. The organization and management of playdays, meets, and tournaments with actual experience in conducting the fall playday for the Los Angeles County Elementary Schools.

181B. A study of the public performances in the school program—its purpose, types, sources of material, development, organization, and presentation. The use of the dance, music, lighting, costuming, etc.

182. Corrective Physical Education. (2) 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.
183. Massage and Therapeutic Exercise. (3) I. Miss GRUNEWALD
 Prerequisite: course 182.
 Study of massage and therapeutic exercise applied in the treatment of disturbances of the cardio-vascular, nervous, muscular, and digestive systems.
190. Physiology of Exercise. (3) I. Mrs. JOHNSON
 Prerequisite: Physiology 1.
 A study of the effects of physical education activity on the human organism. The physiological basis for program construction and the adaptation of activities.
- 192A-192B. Administration of Health Education. (3-3) Yr.
 Prerequisite: Physiology 1. Miss HARSHBERGER, Mrs. JOHNSON
 192A. Health Instruction.—This course deals with the educational and physiological basis for teaching health and the application of these principles to the practical problems in the elementary and secondary schools.
 192B. Health Protection.—A discussion of the child conservation movement. Physiological diagnosis of normal and pathological conditions with the procedure in securing the control or correction of these conditions.
199. Problems in Physical Education. (2) II. Mrs. JOHNSON, Miss SHAMBAUGH
 Prerequisite: senior standing and the consent of the instructor.
 Reading, investigation, and reports on current problems in physical education. Conferences, discussions.

COURSE OFFERED IN THE

DEPARTMENT OF PHYSICAL EDUCATION FOR MEN

140. Tests and Measurements in Physical Education. (2) II. Mr. COZENS

PHYSICS

SAMUEL J. BARNETT, Ph.D., Professor of Physics.

VERN O. KNUDSEN, Ph.D., Professor of Physics, and Dean of Graduate Study.

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.

JOSEPH KAPLAN, Ph.D., Associate Professor of Physics.

E. LEE KINSEY, Ph.D., Assistant Professor of Physics.

ARTHUR H. WARNER, Ph.D., Assistant Professor of Physics.

LEO P. DELSASSO, A.B., Associate in Physics.

Letters and Science List.—All undergraduate courses in physics are included in the Letters and Science List of Courses. For regulations governing this list, see page 64.

Preparation for the Major.—Required: Physics 1A, 1B, 1C, 1D, or their equivalents (in meritorious cases Physics 2A–2B may be accepted); Chemistry 1A–1B; Mathematics C, 5, 9A–9B, or their equivalents. Recommended: a reading knowledge of German and French.

The Major.—Eleven units of upper division physics, consisting of 105, 107A, 108B, and 110A; and thirteen units chosen from other upper division courses in physics, Mathematics 119, 122A–122B, 124, Chemistry 110, and Astronomy 117A–117B. At least nine of these latter thirteen units shall be courses in the Department of Physics.

Laboratory Fees.—Courses 1A, 1B, 1C, 1D, 2A, 2B, \$5; 1AD, 1BC, \$10; 108A, \$6; 107A, 107B, 108B, 113C, 114C, \$12. The student will, in addition, be held responsible for all apparatus lost or broken.

LOWER DIVISION COURSES.

Prerequisite for 1A, 1B, 1C, 1D: either (1) the high school course in physics, or (2) three years of high school mathematics, including 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, 1C, and 1D 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 Junior Certificate.

Duplication of courses: Students who have credit for course 2A-2B or 4A-4B may receive two units of credit for courses 1C and 1D, provided that the total units for lower division physics shall not exceed 12 units. No other combinations of courses 2A-2B, 4A-4B, and 1A, 1B, 1C, 1D are approved for credit.

1A. General Physics: Mechanics of Solids. (3) I, II.

Mr. ELLIS, Mr. DODD, Mr. EDWARDS, Mr. DELSASSO

Demonstration, W, 11; lecture and laboratory, four hours.

Fee, \$5.

1B. General Physics: Mechanics of Liquids, and Heat. (3) II.

Mr. DODD, Mr. ELLIS, Mr. DELSASSO

Demonstration, M, 11; lecture and laboratory, four hours.

Fee, \$5.

1C. General Physics: Electricity and Magnetism. (3) I.

Mr. WARNER, Mr. KINSEY, Mr. DELSASSO

Prerequisite: course 1A or the equivalent. Fee, \$5.

Lectures, Tu Th, 9; laboratory, three hours.

1D. General Physics: Light and Sound. (3) II.

Mr. KINSEY, Mr. WARNER, Mr. DELSASSO

Lectures, Tu Th, 9; laboratory, three hours. Fee, \$5.

1AD. General Physics: Mechanics of Solids and Fluids, Wave Motion, Sound, Light. (6) I.

Mr. ADAMS

Prerequisite: Mathematics 3B or the equivalent. Fee, \$10.

Demonstration, one hour; lecture and laboratory, eight hours.

1BC. General Physics: Heat, Electricity, Magnetism. (6) II. Mr. ADAMS

Prerequisite: Physics 1AD, Mathematics 4A, or the equivalent. Fee, \$10.

Demonstration, one hour; lecture and laboratory, eight hours.

2A-2B. General Physics. (4-4) Yr. Mr. EDWARDS, Mr. KAPLAN, Mr. KINSEY

Demonstration, Th, 11; lecture, three hours; laboratory, two hours.

Fee, \$5 per half-year.

Mechanics, sound, heat, light, electricity. Prescribed for pre-medical students.

4A-4B. General Physics. (3-3) Yr.

Mr. BARNETT

Lectures, M W F, 9.

Prerequisite: elementary algebra and plane geometry.

A descriptive course, without laboratory work, 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 3A-3B; or the equivalents.

105. Analytic Mechanics. (3) I. Mr. EDWARDS
The statics and dynamics of particles and rigid bodies.
- 107A. Electrical Measurements. (2) I. Mr. WARNER, Mr. DELSASSO
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) I. Mr. DODD
Fee, \$6.
Lectures, demonstrations, and laboratory work on geometrical methods applied to the optics of mirrors, prisms, and lenses, and to their use in modern optical instruments.
- 108B. Physical Optics. (4) I. Mr. ELLIS, Mr. KAPLAN
Fee, \$12.
Lectures, demonstrations, and laboratory work dealing with interference, diffraction, polarization, and their applications.
- 109 *Modern Optical Instruments (2)* II
- 110A-110B. Electricity and Magnetism. (2-3) Yr. Mr. BARNETT
The elementary mathematical theory, with a limited number of experimental demonstrations.
112. Heat. (3) I. Mr. ADAMS
Thermodynamics, with applications to physical chemistry.
113. Introduction to Spectroscopy. (3) II. Mr. KINSEY
- 113C. Spectroscopy Laboratory. (1) II. Mr. ELLIS
Fee, \$12.
Prerequisite or concurrent: course 113.
114. Mechanics of Wave Motion and Sound. (3) II. Mr. KNUDSEN
Lectures and demonstrations on the fundamental theory of wave motion and sound.
- 114C. Mechanics of Wave Motion and Sound Laboratory. (1) II. Mr. KNUDSEN, Mr. DELSASSO
Prerequisite: courses 107B and 114. Fee, \$12.

121. Atomic Physics. (3) II.

Mr. ADAMS

An introductory view of the properties and constituents of atoms, as disclosed by the advances of the past thirty-five years.

Lectures, with demonstrations, and readings.

199A-199B. Special Problems in Physics. (2-2) Yr.

Mr. KNUDSEN and the STAFF

GRADUATE COURSES

Courses 210A-210B and 220A-220B are required of all candidates for the Master's degree with major in physics.

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.

214. Acoustics. (3) I.

Mr. KNUDSEN

Molecular phenomena associated with the dispersion and absorption of sound in gases, and recent developments in physical, physiological, and architectural acoustics.

220A-220B. Introduction to Quantum Theory. (3-3) Yr.

Mr. KINSEY, Mr. KAPLAN, Mr. ELLIS

Quantum theory introduced from the standpoint of advanced dynamics and statistical mechanics with selected applications.

290. Advanced Study on Special Problems. (1-3) I, II.

Mr. KNUDSEN in charge.

A-290B beginning II

COURSE IN ANOTHER DEPARTMENT

Astronomy 117A-117B. Astrophysics and Stellar Astronomy. (3-3) Yr.

POLITICAL SCIENCE

- CHARLES G. HAINES, Ph.D., Professor of Political Science.
 MALBONE W. GRAHAM, Ph.D., Professor of Political Science.
 FRANK M. STEWART, Ph.D., Professor of Political Science.
 CHARLES H. TITUS, Ph.D., Associate Professor of Political Science.
 ORDEAN ROCKEY, B.Litt., Assistant Professor of Political Science.
¹J. A. C. GRANT, Ph.D., Assistant Professor of Political Science.
²H. ARTHUR STEINER, Ph.D., Assistant Professor of Political Science.
 ERIC ARMOUR BEECROFT, Ph.D., Instructor in Political Science.
 VALDIMER O. KEY, JR., Ph.D., Instructor in Political Science.
 RALPH A. NOREM, Ph.D., Instructor in Political Science.

ARNOLD GERHARD EGER, LL.B., 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 64.

Preparation for the Major.—Course 3A-3B, or its equivalent, and one of the following: courses 31A-31B, 32, 34, Economics 1A-1B, Geography 1A-1B, History 4A-4B, History 5A-5B, or History 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 six of which may be taken in courses approved by the department in history, economics, philosophy, psychology, or geography. Major programs must be approved by the departmental adviser.

LOWER DIVISION COURSES

3A-3B. American Government. (3-3) Beginning each half-year.

Mr. TITUS, Mr. GRANT, Mr. ROCKEY, Mr. STEINER, Mr. BEECROFT,
 Mr. KEY

3A. A study of principles and problems in relation to the organization and functions of the American system of government.

3B. A survey of the organization and functions of the national government with special attention to the features and the principles of the Federal Constitution. Some features of the organization of state and local governments will be briefly considered.

Students who have credit for American Institutions 101 will receive only two units for Political Science 3A.

¹ In residence first half-year only, 1935-36.

² In residence second half-year only, 1935-36.

31A-31B. Introduction to European Governments. (3-3) Yr.

Mr. STEINER, Mr. BEECROFT, Mr. NOREM

Prerequisite: sophomore standing and course 3A-3B.

This course duplicates course 51A-51B given prior to September, 1935.

A comparative study of European governments; constitutional development; political institutions; political parties and elections; contemporary politics.

32. American Political Parties. (3) I, II.

Mr. BEECROFT, Mr. NOREM

Prerequisite: sophomore standing and course 3A-3B.

This course duplicates course 52 given prior to September, 1935.

American party history; federal and state party organizations; the electorate; nominations and elections; the direct primary; party control of legislature; the President as party leader; theory of American party divisions; American public opinion; the rise of blocs.

34. American State and Local Government. (3) I.

Mr. KEY

Prerequisite: sophomore standing and course 3A-3B.

This course duplicates course 74 given prior to September, 1935.

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

Prerequisites for all courses: Political Science 3A-3B, or its equivalent, and one of the following: Political Science 31A-31B, Political Science 32, Political Science 34, Economics 1A-1B, Geography 1A-1B, History 4A-4B, History 5A-5B, or History 8A-8B.

110. Principles of Political Science. (3) I, II.

Mr. TITUS, Mr. ROCKEY

A survey of fundamental political concepts, including the legal and theoretic bases of the modern state, the various forms of government, and an analysis of the functions of government.

112. Public Opinion. (2) II.

Mr. ROCKEY

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.

113A-113B. American Political Theories. (2-2) Yr.

Mr. ROCKEY

A comparative study of the characteristic types of American political theories of the past, together with a consideration of recent tendencies in American political thought.

42 114. ^{Electoral} Political Statistics. (2) I, II.

Mr. TITUS

The application of statistical method to certain phases of political science, including the collection, analysis, summarization, evaluation, and presentation of measurable phenomena.

118. The Nature of the State. (3) I, II.

Mr. TITUS, Mr. BEECROFT

Prerequisite: permission of the instructor.

The nature of the modern state and its differences from the state of the eighteenth and nineteenth centuries. Both monistic and pluralistic approaches are included in this study.

125. Foreign Relations of the United States. (3) I, II.

Mr. GRAHAM, Mr. STEINER

A study of the agencies which formulate and administer American foreign policies; the Department of State; the American Foreign Service. An analysis of basic factors and fundamental principles in American foreign relations.

127. International Relations. (3) II.

Mr. GRAHAM

The modern state system and the society of nations; the diplomatic and consular services; the origin and development of the instrumentalities of international government, including the Permanent Court of International Justice and the League of Nations; current political and economic problems of international organization.

133. Introduction to International Law. (3) II.

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. NOREM

Expansion of European, American, and Japanese interests in the Pacific. Clash of national policies and resultant problems. Political and unofficial efforts toward international understanding and coöperation.

138. International Relations of the Far East. (3) I.

Mr. NOREM

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 Pol. Parties, & Practical Politics (2) I

153. The Government of the British Empire. (2) I.

Mr. BEBECOFF

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.

157A-157B. Constitutional Law. ⁴⁻⁴~~(3-3)~~ Yr.

Mr. HAINES, Mr. GRANT

Prerequisite: senior standing or the permission of the instructor.

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.

162. Municipal Government. (3) I, II. **Mr. STEWART, Mr. KEY**
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. STEWART**
Administrative organization; personnel; finance; city planning and zoning; charities; recreation, education; water supply; streets and parks, police, courts, correction; health, housing, fire, traffic, and control of utilities.
- 143 165. Legislatures and Legislation. (2) I, II. **Mr. GRANT**
The functions of legislatures. The organization and procedure of typical legislative bodies; the problems and principles of law making; the legislative functions of the courts and of the administration.
181. Principles of Public Administration. (3) I, II. **Mr. STEWART, Mr. KEY**
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**
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.
183. Administrative Functions. (3) II. **Mr. STEWART**
Activities of the national, state, and local governments are studied. Certain of the following problems will be analyzed: health and welfare; conservation of natural resources; public works; education; finance; protection to persons and property; and other topics.
- 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.
For the year 1935-36 the work will be done primarily in the five following fields:
- | | |
|---|---------------------------------|
| Section 1. Problems in Public Law. | Mr. GRANT |
| Section 2. Problems in International Relations. | Mr. STEINER |
| Section 3. Problems in Political Theory. | Mr. TITUS, Mr. ROCKEY |
| Section 4. Problems in Municipal Government. | Mr. KEY |
| Section 5. Problems in Comparative Government. | Mr. GRAHAM, Mr. BEECROFT |

GRADUATE COURSES

- 252A-252B. Seminar in Public Law. (2-2) Yr. **Mr. HAINES, Mr. GRANT**
Prerequisite: either Political Science 157A-157B, or any two of the following courses: Jurisprudence 117, 156, 158.
- 253A-253B. Seminar in International Relations. (2-2) Yr. **Mr. GRAHAM**
Prerequisites: courses 125, and 127 or 133; or 136 and 138.

* Not offered, 1935-36.

- 254A-254B. Seminar in Public Administration. (2-2) Yr. Mr. STEWART
Prerequisites: courses 162 and 163, or 181 and 183, or Jurisprudence 156 and 158.
- 275A-275B. Special Study and Research. (2-4; 2-4) Yr.
Mr. HAINES in charge.

AMERICAN INSTITUTIONS

101. American Institutions. (2) I, II. Mr. TITUS, Mr. ROCKEY
The fundamental nature of the American constitutional system and of the ideals upon which it is based.
This course, or the Examination in American Institutions (see page 40), is required of all students during the junior or senior year with the following exceptions:
(1) Students who complete Political Science 3A-3B;
(2) Political Science majors;
(3) History majors who complete History 8A-8B;
(4) History majors or minors (Teachers College) who complete History 171A-171B.
American Institutions 101 may not be applied toward the political science major.
Not open to students who have credit for Political Science 3A-3B. A student who has credit for 3A only may take course 101, but will receive therefor only one unit. A student who has credit for course 101 will receive only two units for course 3A.

JURISPRUDENCE

LOWER DIVISION COURSE

- 18A-18B. Commercial Law. (3-3) Yr. Mr. EGER
Definitions and elementary principles of law; essentials of the law of contracts, agency, sales, partnership, negotiable instruments, and private corporations.

UPPER DIVISION COURSES

117. Elements of Law. (3) II. Mr. HAINES
Prerequisite: junior standing.
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.
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.
158. Government and Business. (3) II. Mr. GRANT
An intensive study of the commerce and police powers, with particular emphasis upon the administrative and judicial powers of state and federal authorities.

PSYCHOLOGY

¹KNIGHT DUNLAP, Ph.D., Professor of Psychology.

KATE GORDON, Ph.D., Professor of Psychology.

¹FRANKLIN FEARING, Ph.D., Visiting Professor of Psychology.

GRACE M. FERNALD, Ph.D., Associate Professor of Psychology.

S. CAROLYN FISHER, Ph.D., Assistant Professor of Psychology.

ELLEN B. SULLIVAN, Ph.D., Assistant Professor of Psychology.

LAWRENCE GAHAGAN, Ph.D., Assistant Professor of Psychology.

JOSEPH A. GENGERELLI, Ph.D., Assistant Professor of Psychology.

FRANK C. DAVIS, Ph.D., Instructor in Psychology.

HOWARD C. GILHOUSEN, Ph.D., Instructor in Psychology.

JOHN D. LAYMAN, Ph.D., Instructor in Psychology.

Edith Beck, Instructor in Anthropology.

Letters and Science List.—All undergraduate courses in psychology except 119 are included in the Letters and Science List of Courses. For regulations governing this list, see page 64.

Preparation for the Major.—Required: Psychology 1A-1B, Zoölogy 1A and either Zoölogy 1B or Physiology 1. Recommended: French, German, chemistry, physics, and Economics 1A-1B or 30A-30B.

The Major.—Required: Psychology 106A, 107A, and twelve other units in upper division courses in psychology. The remaining six units may be chosen from other upper division courses in psychology, or from the following, subject to the approval of the department: any upper division courses in philosophy; Zoölogy 103; Education 103; Economics 186.

Laboratory Fees.—Courses 106A, 106B, 107A, 107B, 199, \$3; 150, \$5.

LOWER DIVISION COURSES

1A-1B. General Psychology. (3-3) Beginning each half-year.

Mr. GILHOUSEN, Mr. DAVIS, and STAFF

Lectures, either Tu Th, 10 or Tu Th, 1; and one hour demonstration.

Course 1A-1B is prerequisite to all upper division courses in psychology.

It is not open to freshmen, but is open to sophomores without prerequisite.

The year sequence 1A-1B is required of all Teachers College students in their sophomore year.

An account of the development of psychology; will and personality; intelligence, its nature and measurement; feeling, emotion, attitude; human and animal learning; basic activities, instincts, skills; nervous structures and functions; sense organs and functions; association; perception, illusion; attention; imagination, dreams; memory and forgetting; current psychological doctrines.

Lectures, reading, demonstrations.

¹ In residence first half-year only, 1935-36.

² In residence second half-year only, 1935-36.

~~18~~
 Applied Psychology. (2)-I, II.

Mr. GAHAGAN

Prerequisite: course 1A.

A discussion of psychological principles bearing on problems of daily life, and on legal, medical, and industrial problems. Lectures, reading, demonstrations.

3A-B, Introductory Psych; Interest Cee, (3-3)
 UPPER DIVISION COURSES (can't have credit for both 143)

Psychology 1A-1B is prerequisite to all upper division courses.

106A-106B. Experimental Psychology. (3-3)

Mr. DAVIS

106A, I, II; 106B, II. Fee, \$3 per half-year.

The methods and typical results in the experimental investigation of movement, fatigue, habit, memory, association, attention, perception, etc.

One hour lecture or conference, four hours laboratory, outside reading.

107A-107B. Psychological Measurement and the Use of Statistics. (3-3) Beginning each half-year. Fee, \$3 per half-year.

Miss SULLIVAN

107A. Statistical methods and their use in relation to psychological problems, including illustrations and problems from the field of educational and experimental psychology and group mental tests.

107B. A study of the standard intelligence tests and their applications. Two lectures or conferences and three hours of clinical work in the use of various tests.

Lectures, clinical demonstrations, laboratory exercises, outside reading and conferences.

108. Physiological Psychology. (3) I.

Recommended: Physiology 1, Zoölogy 1A, or Biology 1.

The physiological correlates of mental conditions, with special reference to the sensory, motor, and association processes of the cerebrum.

Lectures, reading, demonstrations, and discussions.

110. Experimental Educational Psychology. (3) I, II.

Mr. GINGERELLI

Discussion of special topics pertaining to fundamental educational problems and their applications to educational procedures. Laboratory and clinical or teaching experiments pertaining to the problems of learning, memory, etc., in children and adults.

Two hours lecture; three hours laboratory; outside reading.

112. Child Psychology. (3) I, II.

Miss FERNALD

The psychology of the child, with special reference to the problem of mental development.

*119. Psychology of Special School Subjects. (3) I, II.

Miss FERNALD

An analysis of the psychological problems involved in learning to write, read, solve problems in mathematics, grasp the meaning of history, geography, natural science, and other school subjects.

Lectures, assigned reading, and conferences.

* Not offered, 1985-86.

- Psychology*
A Ancient Period; B Modern Period (2-2)
124. History of Psychology. (2) I, II. Miss GORDON, Mr. GINGERELLI
 Prerequisite: six upper division units in psychology.
 Psychology in ancient, medieval, and modern times, with special reference to developments in the nineteenth and twentieth centuries.
 Lectures, assigned readings, and conferences.
- 125 *Psych. of Religion (2) II*
 132. Contemporary Psychology. (2) I, II. Mr. GAHAGAN
 Prerequisite: six upper division units in psychology.
 A study of present day psychology in theory, backgrounds, and results.
 Lectures, assigned readings, and conferences.
133. Advanced General Psychology. (2) I, II. Miss GORDON, Miss FISHER
 Prerequisite: six upper division units in psychology.
 Criticism of the major concepts of psychology, such as attention, imagination, memory, will.
 Lectures, assigned readings, and conferences.
- 145A-145B. Social Psychology. (2-2) Yr. Miss FISHER
 145A. The instinctive and the higher mental processes that are the basis of social life; the behavior of men in groups.
 145B. Adjustment and maladjustment. Race, intelligence, and psychic stability as factors in national unity.
 Lectures, reading, discussions, and clinical demonstrations.
150. Animal Psychology. (3) I, II. Mr. GILHOUSEN
 Fee, \$5.
 The mental processes of animals, and their relations to human mental processes. Each student will carry out a number of observations and experiments on animals illustrating the general facts of animal behavior in different phyla.
 Lectures, reading, and laboratory exercises.
- 166A-166B. Clinical Psychology. (2-2) Yr. Miss FERNALD
 One lecture and three hours of clinical work weekly.
 A study of the problems connected with the atypical child, including the discussion of mental and physical deficiencies, abnormalities, genius, and emotional instability. Special emphasis is placed on the methods by which such children may be developed to a maximum of efficiency. Practice in mental testing in the clinics, juvenile courts, and schools.
 Lectures, reading, clinical demonstrations, testing, and training of special cases.
168. Abnormal Psychology. (3) II.
 The facts of abnormality; in movement, speech, and sensation; delusions, disorders of attention, memory, and association; the relation of psychology to psychiatry and other subjects dealing with mental abnormalities.
 Lectures, reading, demonstrations.

199. Special Problems in Psychology. (3) I, II. ——— and the STAFF

Prerequisite: courses 106A, 107A, and one of the following: 108, 110, 112, 145A, 150, 166A, or 168. Special permission to register for this course is required. Fee, \$3.

In this course students will undertake the study of problems in connection with their major interests, in some field of psychology—animal, clinical, experimental, physiological, statistical, social—and under the direction of the special instructor in whose field the interest lies.

GRADUATE COURSES

251A-251B. Seminar in Clinical Psychology. (3-3) Yr.

Miss FERNALD in charge

255A-255B. Seminar in Social Psychology. (3-3) Yr. Miss GORDON in charge

273A-273B. Psychological Research. (3-3) Yr.

Miss GORDON in charge

Anthropology

1A-B Gen'l Anthrop (3-3)

103

1st of Civil.

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SPANISH

CÉSAR BARJA, Doctor en Derecho, Professor of Spanish.
 LAURENCE DEANE BAILIFF, Ph.D., Associate Professor of Spanish.
 *MANUEL PEDRO GONZÁLEZ, Ph.D., Associate Professor of Spanish.
 ERNEST H. TEMPLIN, Ph.D., Assistant Professor of Spanish.
 ANNA KRAUSE, Ph.D., Assistant Professor of Spanish.
 MARION ALBERT ZETTLIN, Ph.D., Assistant Professor of Spanish.
 HERMENEGILDO CORBATÓ, Ph.D., Assistant Professor of Spanish.
 MARIA L. DE LOWTHER, M.A., Associate in Spanish.
 SYLVIA N. RYAN, M.A., Associate in Spanish.
 FRANCISCO MONTAU, A.B., Associate in Spanish.
 CONSUELO PASTOR, A.B., Associate in Spanish.

Letters and Science List.—All undergraduate courses in Spanish are included in the Letters and Science List of Courses. For regulations governing this list, see page 64.

Preparation for the Major.—(1) Courses A, B, C, D, and 5A-5B or 5AB 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 obtaining the Junior Certificate. (3) A minimum of two years of high school Latin or French, 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.

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 or Latin, or may be completed from courses 101, 104, 105, 108, 109, and 110.

NOTE.—Students who have not completed course 5A-5B or 5AB in the lower division must take 101A-101B.

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, and Greek 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.

* In residence second half-year only, 1935-36.

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.

- A. Elementary Spanish. (5) I, II. Mr. ZETTLIN in charge
I, M Tu W Th F, 8, 9, 10, 11, 12, 2; II, M Tu W Th F, 8, 9, 10, 11.
This course corresponds to the first two years of high school Spanish.
- B. Elementary Spanish. (5) I, II. Mr. ZETTLIN in charge
M Tu W Th F, 8, 9, 10, 11, 12.
Prerequisite: course A or two years of high school Spanish or Spanish SA in a summer session with satisfactory grade.
- C. Intermediate Spanish. (3) I, II. Mr. ZETTLIN in charge.
M W F, 8, 9, 12, 2.
Prerequisite: course B or three years of high school Spanish or the equivalent.
- D. Intermediate Spanish. (3) I, II. Mr. ZETTLIN in charge
M W F, 8, 10, 11, 12.
Prerequisite: course C or four years of high school Spanish or the equivalent.
- CD. Intermediate Spanish. (5) I, II. Miss RYAN
M Tu W Th F, 12.
Prerequisite: course B or three years of high school Spanish or the equivalent.
- 5A-5B. Advanced Spanish. (3-3) Yr. Miss KRAUSE, Mrs. LOWTHER
M W F, 9, 11.
This course duplicates course 50A-50B given prior to September, 1935.
For lower division students who have had course D or the equivalent.
Designed especially for freshmen and sophomores who propose to make Spanish their major subject.
- 5AB. Advanced Spanish. (5) II. Miss RYAN
M Tu W Th F, 10.
Prerequisite: same as for course 5A-5B.
This course duplicates course 50AB given prior to September, 1935.
- *19. Dramatic Interpretation in Spanish. (2) I. _____
The study and presentation of a masterpiece of Spanish dramatic literature. Only those students will be eligible for registration in this course who shall have done, without credit, certain preliminary work required by the department during the preceding semester. The work of the course will end with the production and this production shall constitute the examination.
This course may be taken only twice for credit.

* Not offered, 1935-36; probably offered, 1936-37.

UPPER DIVISION COURSES

Prerequisite: sixteen units of lower division Spanish or the equivalent (except for course 140A-140B).

Major students who enter the upper division without course 5A-5B or 5AB must take 101A-101B.

Junior Courses

101A-101B. Oral and Written Composition. (3-3) Yr.

M W F, 8, 10, 12.

Mr. CORBATÓ, Miss KRAUSE, Mr. TEMPLIN

102A-102B. Survey of Spanish Literature to 1900. (3-3) Yr.

M W F, 9, 11, 2.

Mr. BAILIFF, Miss KRAUSE

Required of major students in Spanish.

Junior and Senior Courses

^{II}
*104A-104B. Survey of Spanish American Literature. (2-2) Yr.

Tu Th, 10.

Mr. GONZÁLEZ

A study of the principal authors of Spanish America.
Lectures and reading.

A-~~B~~ 105A-105B. Readings in Classical Literature. (2-2) Yr.

Mr. ZETTLIN

M F, 1.

This course duplicates course 105C-105D given prior to September, 1935.
Students planning to take graduate work in Spanish are expected to take this course or offer an equivalent.

108A-108B. Spanish Literature from 1850-1898. (2-2) Yr.

Mr. BAILIFF

Tu Th, 10.

A study of Spanish Realism in the second half of the nineteenth century.

109A-109B. Spanish Literature from 1700-1850. (2-2) Yr.

Mr. BAILIFF

Tu Th, 9.

A study of the Neo-classic and Romantic movements.

140A-140B. Spanish Civilization. (2-2) Yr.

Mr. BARJA

Tu Th, 11.

Prerequisite: junior standing.

A study of the growth and development of Spanish culture in the various fields. Lectures are in English, reading in Spanish or English.

Restricted to Seniors

110A-110B. Contemporary Literature. (2-2) Yr.

Mr. BARJA

M W F, 10.

Reading and discussion of contemporary writers.

116A-116B. Advanced Composition. (2-2) Yr.

Mr. CORBATÓ

Tu Th, 10, 12.

Required of Spanish majors. Not open to students who took Spanish 106A-106B prior to September, 1934.

* Not offered, 1935-36; probably offered, 1936-37.

GRADUATE COURSES†

- *204A-204B. Spanish American Literature. (2-2) Yr. Mr. GONZÁLEZ
- 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
- 212A-212B. Historical Grammar and Old Spanish Readings. (2-2) Yr.
Mr. ZEITLIN

† All candidates for the degree of Master of Arts must offer at least two years of high school Latin, or the equivalent.

* Not offered, 1935-36.

SUBJECT A: ENGLISH COMPOSITION

FRANK HERMANN REINSCH, Ph.D., Associate Professor of German, Chairman,
Committee on Subject A.

¹**THOMAS E. THOMPSON, A.B.**, Associate in Subject A.

SELENA P. INGRAM, M.A., Associate in Subject A.

¹**MARGARET BROWN RINGNALDA, M.A.**, Associate in Subject A.

Subject A. No credit. I, II.

The STAFF

Fee, \$10.

Three hours weekly for twelve weeks. 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 his failure, the course in Subject A. Sections are limited to thirty students. For further details, see page 37.

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 half-year only, 1935-36.

TRAINING DEPARTMENT

**STAFF IN UNIVERSITY OF CALIFORNIA AT LOS ANGELES
TRAINING DEPARTMENT**

- CHARLES WILKIN WADDELL, Ph.D., Professor of Education and Director of the Training Department.
- ETHEL I. SALISBURY, M.A., Associate Professor of Elementary Education and Supervisor of Training.
- CORINNE A. SEEDS, M.A., Assistant Professor of Elementary Education and Principal of the University Elementary School.
- JESSE A. BOND, M.A., Lecturer in Education and Supervisor of Secondary Training.
- BARBARA GREENWOOD, Supervisor of Nursery School Training.
- LULU M. STEDMAN, Ed.B., Supervisor of Special Education.
- HELEN B. KELLER, Ed.B., Supervisor of Training, Elementary.
- BERTHA E. WELLS, Ed.B., Supervisor of Training, Elementary.
- NATALIE WHITE, M.A., Supervisor of Training, Art.
- FLORENCE MARY HALLAM, A.B., Supervisor of Training, Home Economics.
- HELEN CHUTE DILL, M.A., Supervisor of Training, Music.
- LAVERNA L. LOSSING, M.A., Supervisor of Training, Music.
- DIANA W. ANDERSON, M.A., Supervisor of Training, Physical Education.
- ELIZABETH BRUENE, M.A., School Counselor.
- EMMA JANE ROBINSON, Training Teacher, Sixth Grade.
- HELEN F. BOUTON, M.A., Training Teacher, Fifth Grade.
- BESSIE HOYT PERSELS, M.A., Training Teacher, Fourth Grade.
- GERTRUDE C. MALONEY, Ed.B., Training Teacher, Third Grade.
- EDITH HOPE RINGER, Training Teacher, Second Grade.
- CLAYTON BURROW, M.S., Training Teacher, First Grade.
- JANE BERNHARDT, M.A., Training Teacher, Kindergarten.
- ELEANOR STRAND, Ed., B., Assistant Training Teacher, Nursery School.

Departmental Supervisors

- HELEN M. HOWELL, Ed.B., Associate in Fine Arts and Supervisor of Training, Art.
- CLARA BARTRAM HUMPHREYS, M.A., Associate in Fine Arts.
- EVA M. ALLEN, Associate in Commercial Practice.
- ESTELLA B. PLOUGH, Associate in Commercial Practice.
- FOSS R. BROCKWAY, Associate in Mechanic Arts.
- DIANA ANDERSON, M.A., Supervisor of Training, Physical Education.
- PAUL FRAMPTON, M.A., Associate Supervisor of Physical Education for Men.

STAFF IN SAWTELLE BOULEVARD SCHOOL

Supervisors

NORA STERRY, M.A., Principal.
 HELEN B. KELLER, Ed.B.
 ETHEL I. SALISBURY, M.A.
 BERTHA E. WELLS, Ed.B.

Demonstration Teachers

GWENDOLYN DEFOREST, B.S. in Ed., Kindergarten.
 CALLIE A. GREGG, First Grade.
 EDNA EVENSON, Second Grade.
 LAVON HARPER WHITEHOUSE, B.S. in Ed., Third Grade.
 HAZEL HENNINGER, Fourth Grade.
 MARCIA BONSALE, B.S. in Ed., Fifth Grade.

Training Teachers

GENEVIEVE ANDERSON, Kindergarten.
 ELEANOR BARR, A.B., Little Bl.
 ELSA ANSHUTZ, First Grade.
 ISABELLE AMES, A.B., First Grade.
 RUTH HILLERBY, B.S. in Ed., First Grade.
 JOSEPHINE O'HAGAN, B.S. in Ed., Second Grade.
 ALICE HILL ARMSTRONG, Second Grade.
 ESTELLA THOMPSON, Second Grade.
 ALMA LOUISE EGERER, Third Grade.
 GERTRUDE ROE MARTIN, B.S. in Ed., Third Grade.
 EUNICE COLLETTE KLECKER, Ed.B., Fourth Grade.
 EVELYN WHITMAN, Fourth Grade.
 GERTRUDE ALLISON, Fourth and Fifth Grades.
 SIBYL HOUDYSHELL WHITWORTH, Ed.B., Fifth Grade.
 EVELYN KIDWELL, A.B., Sixth Grade.
 HELEN BARBER, Ed.B., Sixth Grade.
 RUTH BAUGH MYERS, Ed.B., Sixth Grade.

Staff in Junior and Senior High Schools

The secondary school staff consists of some ninety to 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.

SUPERVISED TEACHING†

KINDERGARTEN-PRIMARY, GENERAL ELEMENTARY, SPECIAL SECONDARY

390. Introduction to Elementary Teaching. (4) I, II.

Mr. WADDELL, Miss SEEDS

Prerequisite: at least a C average at the time of enrollment.

An intensive study of the principles of teaching made effective by assigned readings, 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. All students in these fields must enroll for this course not later than the first half of the senior year. At least half of those of junior high rank must also be enrolled during the second half of each year to insure availability of assignments.

Courses:*

K190A-K190B.	Kindergarten-Primary. (4-4)
E190A-E190B.	General Elementary. (4-4)
J191A-J191B.	General Junior High. (4-4)
A190.	Art, Elementary. (3)
A191.	Art, Junior High. (3)
A192.	Art, Secondary. (4)
C192A-C192B.	Commerce, Secondary. (4-4)
H191A-H191B.	Home Economics, Junior High. (2-2)
H192A-H192B.	Home Economics, Secondary. (2-2)
MA191.	Mechanic Arts, Junior High. (3)
MA192A-MA192B.	Mechanic Arts, Secondary. (3-3)
M190A-M190B.	Music, Elementary. (3-3)
M192A-M192B.	Music, Secondary. (3-3)
P190A-P190B.	Physical Education, Elementary. (3-3)
P191.	Physical Education, Junior High. (3)
P192A-P192B.	Physical Education, Secondary. (3-3)
**(-) 195.	Elective. (1 to 4)

Prerequisites:

Senior standing.

Satisfactory scholarship.†

Education courses as specified by the respective departments.

Approval by the University physician before each assignment.

† All candidates for supervised teaching must make formal application at the office of the Director of Training Department about the middle of the semester preceding that in which such teaching is to be done.

For dates of application without late fee, see the University Calendar and Schedule of Courses.

* All courses offered each half-year.

** For students seeking a second type of credential after having completed the requirements for one. To be taken normally without degree credit.

† C average for all work at the University of California at Los Angeles; a C average for all courses in education; and a C average for all work in the major (when this is other than education).

GENERAL SECONDARY

- 320A. Introduction to Secondary Teaching. (2) I, II. Mr. BOND
 Prerequisite: Graduate standing; Education 170, 100 (or Psychology 110), and one or two of the following: Education 103, 121, 122.
 An intensive study of the principles of teaching in the secondary school, made effective through observation of high school classes. This course is prerequisite to 320B and 324 and is so conducted as to prepare for and lead to definite placement for actual supervised teaching (320B or 324).
- 320B. Supervised Teaching, General Secondary. (4) I, II. Mr. WADDELL, Mr. BOND
 Prerequisite: course 320A; approval of the University physician.
 Supervised teaching in a secondary school. This course is accompanied by a required conference each week with the supervisor of general secondary teaching. Hours for teaching by individual arrangement. Conference, F, 3.
323. Practicum in Supervised Teaching. (2) I, II. Mr. WADDELL, Mr. BOND
 Prerequisite: courses 320A and 320B or equivalent; or public school experience and approval of the instructors.
 A short course in secondary teaching designed primarily for candidates who have had several years of public school experience or the equivalent, or who have completed supervised teaching requirements for some other type of teaching credential.
 The candidate will ordinarily teach ten weeks and attend one conference a week. Assignments will be so made as to supplement the candidate's previous training or experience. Special demonstration and discussion groups will be assigned.
324. Supervised Teaching, Junior College. (4) I, II. Mr. WADDELL, Mr. BOND
 Prerequisite: course 320A, Education 179 (or 170), and one other required course in education.
 Open only to candidates for the junior college credential alone who are teaching classes in the University. Enrollment only after consultation with the instructors in charge of the course.
 Teaching in the lower division, observation in near-by junior colleges, reports and conferences.

THE TRAINING SCHOOLS

Supervised teaching is provided for in (1) the University Elementary School, comprising a nursery school, kindergarten, and the elementary grades; (2) Sawtelle Boulevard Elementary School of Los Angeles City; (3) the University High School of Los Angeles City; (4) other high schools of Los Angeles and Santa Monica, as requirements demand; (5) elementary schools in Beverly Hills.

The work is organized and administered by the Director of the Training Department and a corps of supervisors and training teachers, chosen in every case by the University authorities.

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- The Announcement of the Division of Forestry.**
- The Announcement of the Farmers' Short Courses.**
- The Announcement of the Nondegree Curriculum at the Branch of the College of Agriculture, Davis.**
- The Annual Report of the College of Agriculture and the Agricultural Experiment Station.**
- The Bulletins and Circulars of the Agricultural Experiment Station.**
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Bulletins Referring Primarily to Schools and Colleges of the University in San Francisco

- The Announcement of the College of Dentistry.**
- The Announcement of the Medical School.**
- The Announcement of the Curricula in Nursing.**
- The Announcement of the College of Pharmacy.**
- The Announcement of the Hastings College of the Law.**
- The Circular of the California School of Fine Arts.**