

University of California Bulletin

THIRD SERIES, Vol. XXIV, No. 4

CIRCULAR OF INFORMATION

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

SEPTEMBER, 1930

**UNIVERSITY OF CALIFORNIA PRESS
BERKELEY, CALIFORNIA**

For Sale by the Associated Students' Store, Los Angeles

Price, Five Cents

Administrative Bulletins of the University of California

1930-31. No. 7

The bulletins concerning the colleges, schools, and departments of the University are listed below. For copies of these circulars, and for further information, address the University of California Press, Berkeley, except in those cases where Los Angeles and San Francisco are indicated. The circulars are sent free except those for which a price (which includes postage) is given.

The Circular of Information, with reference primarily to the Undergraduate Division at Berkeley: containing general information about the University, its organization, requirements for admission to undergraduate status, and for the bachelor's degree in the colleges of Letters and Science, Agriculture, Commerce, and Engineering; students' fees and expenses. Sent free by mail by the University Press on request. A charge of 5 cents is made for copies distributed on the University Campus.

The Annual Announcement of Courses of Instruction in the Departments at Berkeley. Price, 30 cents.

The Circular of Information of the University of California at Los Angeles: containing general information about the University, requirements for admission to undergraduate status, and for the bachelor's degree in the College of Letters and Science and in the Teachers College; students' fees and expenses. Sent free by mail by the University Press on request. A charge of 5 cents is made for copies distributed on the University Campus.

The Annual Announcement of Courses of Instruction in the University of California at Los Angeles. Price, 20 cents.

The Prospectus of the College of Agriculture. General information concerning the College of Agriculture at Berkeley, Davis, Riverside, and elsewhere; its organization, requirements for admission, degrees, etc.

The Announcement of Courses in Forestry.

The Annual Announcement of the Farmers' Short Courses.

The Annual Report of the College of Agriculture and the Agricultural Experiment Station.

The Bulletins and Circulars of the Agricultural Experiment Station.

The Circular of the California School of Fine Arts, San Francisco.

The Annual Commencement Program containing the list of degrees conferred (at Berkeley), scholarships, prizes, and other honors.

The Annual Announcement of the College of Dentistry, San Francisco.

The Annual Announcement of the School of Education.

The Announcement of the Graduate Division.

The Annual Announcement of the Hastings College of the Law, San Francisco.

The Annual Announcement of the School of Jurisprudence.

The Annual Announcement of the Medical School, San Francisco.

(Continued on third page of cover)

UNIVERSITY OF CALIFORNIA

CIRCULAR OF INFORMATION

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AT LOS ANGELES**

SEPTEMBER, 1930

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1930

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 AUGUST TO APRIL, AND TWICE A MONTH FROM MAY TO JULY.

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 Beverly Boulevard from Hilgard Avenue to Veteran Avenue, and is bounded on the south by LeConte and Gayley avenues; automobiles should turn south from Beverly 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. Castellamare bus line, via Beverly 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 Beverly Boulevards. From *Culver City*, Bay Cities Transit Co. bus via Motor Avenue and Westwood Boulevard. From *Van Nuys*, Bay Cities Transit Co. bus via Beverly Glen Boulevard. From *Santa Monica*, Pacific Electric Co. bus via Wilshire Boulevard, and Bay Cities Transit Co. bus via Santa Monica Boulevard. From *Inglewood*, El Segundo Transportation Co. bus via Sawtelle Boulevard.

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

The Announcement of Courses contains detailed statements concerning individual courses, with lists of the faculty of each department. This is published annually, and may be obtained, postpaid, by remitting twenty cents to the *University of California Press, Berkeley.*

Letters of inquiry concerning the University in general should be addressed to the *Recorder of the Faculties, 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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UNIVERSITY OF CALIFORNIA AT LOS ANGELES

CALENDAR, 1930-31

1930

June 9-16, incl.	Final examinations, second half-year, 1929-30.
June 20, Friday	The eleventh annual commencement at Los Angeles.
June 23-July 19	Summer Course in Surveying.
June 30-Aug. 9	Summer Session in Los Angeles.
Sept. 2, Tuesday	Applications for admission in September, 1930, with complete credentials, should be filed on or before this date.* Late filing fee \$2.00, payable when student registers.
Sept. 10, Wednesday	{ 8:30 a.m., Examination in Subject A. 1:30 p.m., Intelligence Test (Teachers College).
Sept. 11, Thursday	Consultation with advisers by new students.
Sept. 12, Friday	8:00 a.m.-4:00 p.m., Registration of old students, including re-entrants.
Sept. 13, Saturday	8:00 a.m.-3:00 p.m., Registration of new students.
Sept. 15, Monday	8:00 a.m.—Instruction begins.
Oct. 3, Friday	Last day to drop courses from study-list without fee; last day to add courses to study-list.
Nov. 8, Saturday	End of 8-week mid-term period.
Nov. 27-30, incl.	Thanksgiving recess.
Dec. 5, Friday	Last day to drop courses from study-list without penalty of grade F (failure).
Dec. 19-Jan. 1, incl.	Christmas recess.

1931

Jan. 24-Jan. 31, incl.	Final examinations.
Jan. 31, Saturday	Applications due* for admission in February, 1931.
Jan. 31, Saturday	Last day of first half-year, 1930-1931.
Feb. 4, Wednesday	{ 8:30 a.m., Examination in Subject A. 1:30 p.m., Intelligence Test (Teachers College).
Feb. 6, Friday	8:00 a.m.-3:00 p.m., Registration of old students, including re-entrants.
Feb. 7, Saturday	8:00 a.m.-3:00 p.m., Registration of new students.
Feb. 9, Monday	8:00 a.m., Instruction begins.
Feb. 27, Friday	Last day to drop courses from study-list without fee; last day to add courses to study list.
Mar. 16, Monday	Last day to file applications for scholarships for the academic year 1931-32.
Mar. 23, Monday	Charter Day.
April 1, Wednesday	End of 8-week mid-term period.
April 2-5, incl.	Easter recess.
May 1, Friday	Last day to drop courses from study-list without penalty of grade F (failure).
May 30, Saturday	Memorial Day, a holiday.
June 1-8, incl.	Final examinations.
June 12, Friday	The twelfth annual commencement at Los Angeles.
June 15-July 11	Summer Course in Surveying.
June 22-Aug. 1	Summer Session in Los Angeles.

For the calendar of the departments of the University at Berkeley, address the Recorder of the Faculties, University of California, Berkeley. In 1930-31 the fall semester at Berkeley opens August 14, the spring semester January 10.

* *Importance of early application:* To give time for necessary correspondence applications and credentials should be forwarded to the Examiner as soon as obtainable from the school authorities.

THE REGENTS OF THE UNIVERSITY

NOTE.—The regular meetings of the Regents are held at 2 p.m., on the second Tuesday of each month, except July, and on the day before Commencement, at such places as may from time to time be determined, ordinarily at the Governor's Office, State Building, San Francisco. The Los Angeles office of the Regents is in Room 304, Subway Terminal Building, Los Angeles.

REGENTS EX OFFICIO

- | | |
|---|---|
| His Excellency CLEMENT CALHOUN YOUNG,
B.L.
Governor of California and President of
the Regents
Sacramento | ROBERT A. CONDES
President of the State Agricultural
Society
Chino |
| HERSCHEL L. CARNAHAN
Lieutenant-Governor of California
756 S Broadway, Los Angeles | OTTO VON GELDERN
President of the Mechanics Institute
865 Pacific bldg, San Francisco |
| EDGAR C. LEVEY, A.B., LL.B.
Speaker of the Assembly
166 Nineteenth av, San Francisco | SAMUEL M. HASKINS, A.B.
President of the Alumni Association
854 S Kingsley drive, Los Angeles |
| VIEBLING KERSEY, M.A.
State Superintendent of Public Instruc-
tion
Mull bldg, Sacramento | ROBERT GORDON SPROUL, B.S., LL.D.
President of the University
219 California Hall, Berkeley |

APPOINTED REGENTS

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.

- | | |
|--|--|
| ARTHUR WILLIAM FOSTER, LL.D. (1932)
San Rafael | CHESTER HARVEY ROWELL, Ph.B. (1936)
149 Tamalpais rd, Berkeley |
| GARRET WILLIAM McENERNEY (1936)
2002 Hobart bldg, San Francisco | MORTIMER FLEISHHACKER (1934)
Anglo-California Trust Company, San
Francisco |
| GUY CHAFFEE EARL, A.B. (1934)
408 Standard Oil bldg, San Francisco | GEORGE I. COCHRAN, LL.D. (1946)
501 West Sixth st, Los Angeles |
| WILLIAM HENRY CROCKER, Ph.B. (1940)
Crocker First National Bank, San Fran-
cisco | MRS. MARGARET RISHEL SARTORI (1938)
725 West Twenty-eighth st, Los Angeles |
| JAMES KENNEDY MOFFITT, B.S. (1940)
41 First st, San Francisco | JOHN RANDOLPH HAYNES, Ph.D., M.D.
(1938)
429 Consolidated Realty bldg, Los Angeles |
| CHARLES ADOLPH RAMM, B.S., M.A., S.T.B.
(1944)
1100 Franklin st, San Francisco | ALDEN ANDERSON (1932)
Capital National Bank, Sacramento |
| EDWARD AUGUSTUS DIKSON, B.L. (1942)
236 S Hill st, Los Angeles | JOHN FRANCIS NEYLAN (1944)
Crocker First National Bank bldg, San
Francisco |
| JAMES MILLS (1942)
Hamilton City | CHARLES COLLINS TRAGUE, LL.D. (1946)
Santa Paula |

OFFICERS OF THE REGENTS

His Excellency Clement Calhoun Young,
B.L.
President
Sacramento

William Henry Crocker, Ph.B.
Chairman
Crocker First National Bank, San
Francisco

Mortimer Fleishhacker
Treasurer
Anglo-California Trust Company, San
Francisco

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

Luther A. Nichols, A.B.
Assistant Secretary and Assistant Com-
ptroller
220 California Hall, Berkeley

Robert M. Underhill, B.S.
Assistant Secretary and Assistant Com-
ptroller
48 Library, University of California at
Los Angeles

STANDING COMMITTEES OF THE BOARD OF REGENTS
FOR THE YEAR 1929-30*

Agriculture:
Regents Mills, Condee, Cochran, Earl,
Anderson, and Teague

Educational Relations:
Regents Kersey, Rowell, Ramm, Earl,
Neylan, and Haskins

Endowments:
Regents Mrs. Sartori, Cochran, McEnerney,
Fleishhacker, Haskins, Neylan,
and Teague

Engineering:
Regents Ramm, Anderson, von Geldern,
Neylan, and Haskins

Executive Committee:
This committee consists of the chairmen
of all standing committees and the
President of the Alumni Association

Finance:
Regents Earl, Moffitt, McEnerney,
Fleishhacker, Crocker, Neylan, and
Cochran

Grounds and Buildings:
Regents Fleishhacker, Dickson, Ramm,
von Geldern, Neylan, Carnahan, and
Teague

Jurisprudence:
Regents McEnerney, Cochran, Haskins,
Levey, and Carnahan

Letters and Science:
Regents Rowell, Ramm, Moffitt, Kersey,
Cochran, and Mrs. Sartori

Library, Research, and Publications:
Regents Cochran, Moffitt, Haskins, von
Geldern, Rowell, and Kersey

Lick Observatory:
Regents Neylan, Crocker, von Geldern,
Anderson, Fleishhacker, and Carnahan

Medical School:
Regents Crocker, Earl, Moffitt, Ramm,
Haynes, Levey, and Neylan

San Francisco War Memorial:
Regents Mills, Fleishhacker, Levey, and
Moffitt

*University of California at Los Angeles and
Scripps Institution of Oceanography:*
Regents Dickson, Cochran, Mrs. Sartori,
Haynes, Kersey, Condee, Carnahan,
and Teague

Wümerding School:
Regents Moffitt, Earl, and von Geldern

* 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
UNIVERSITY OF CALIFORNIA AT LOS ANGELES

ROBERT GORDON SPROUL, B.S., LL.D., President of the University.
WILLIAM WALLACE CAMPBELL, Sc.D., LL.D., President Emeritus of the University.
ERNEST CARROLL MOORE, Ph.D., LL.D., Vice-President and Director of the University of California at Los Angeles.
ROBERT MACKENZIE UNDERHILL, B.S., Assistant Comptroller of the University, and Assistant Secretary of the Regents.

CHARLES HENRY RIEBER, Ph.D., LL.D., Dean of the College of Letters and Science.
MARVIN LLOYD DARSIE, Ph.D., Dean of the Teachers College.
HELEN MATTHEWSON LAUGHLIN, Dean of Women.
EARL JOYCE MILLER, Ph.D., Dean of Men.
GORDON S. WATKINS, Ph.D., Associate Dean of the Summer Sessions and Dean of the Summer Session in Los Angeles.
HARRY MUNSON SHOWMAN, E.M., M.A., Recorder.
CLARENCE HALL ROBISON, Ph.D., University Examiner.
LLEWELLYN MORGAN BUELL, Ph.D., Executive Secretary.
JOHN EDWARD GOODWIN, B.L., B.L.S., Librarian.
LILLIAN RAY TITCOMB, M.D., Physician for Women.
WILLIAM JONATHAN NORRIS, M.D., Physician for Men.
M. BURNEY PORTER, Appointment Secretary and Supervisor of Teacher Training.

THE UNIVERSITY

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

I. IN BERKELEY

The Colleges of

Letters and Science,
Commerce,

Agriculture (including the courses at Berkeley, the Giannini Foundation of Agricultural Economics, the Branch of the College of Agriculture at Davis, the Graduate School of Tropical Agriculture at Riverside, and the United States Agricultural Experiment Station, which includes stations at Berkeley and Davis, the Deciduous Fruit Station in the Santa Clara Valley, the Forestry Station at Chico, the Citrus Experiment Station at Riverside, the Imperial Valley Experiment Station near Meloland, "Whitaker's Forest" in Tulare County, and the M. Theo. Kearney Experiment Station at Kearney Park, Fresno County),

*Mechanics,

Mining,

*Civil Engineering (including the Surveying Camp at Fairfax),
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, notion pictures and other material for visual instruction).

The California Museum of Vertebrate Zoology.

The Museum of Paleontology.

The Institute of Child Welfare.

The Institute of Social Sciences.

* Effective January 1, 1931, the College of Mechanics and the College of Civil Engineering will be combined and will be known as the College of Engineering.

II. AT MOUNT HAMILTON

The Lick Astronomical Department (Lick Observatory).

III. IN 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 Dentistry,
California College of Pharmacy,
The Museum of Anthropology, Archaeology, and Art.

IV. IN LOS ANGELES

University of California at Los Angeles
College of Letters and Science,
Teachers College,
The Lower Division in Agriculture, Chemistry, Civil Engineering,
Commerce, Mechanics, and Mining,
The Summer School of Surveying.
Los Angeles Medical Department, graduate instruction only.

V. AT DAVIS

The Branch of the College of Agriculture.

VI. AT RIVERSIDE

Citrus Experiment Station and Graduate School of Tropical Agriculture.

VII. AT LA JOLLA

The Scripps Institution of Oceanography.

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 is an integral part of the public educational system of the State. Through aid from the State and the United States, and by private gifts, it furnishes instruction in literature and in science, and in the professions of engineering, art, law, teaching, medicine, dentistry, and pharmacy. The instruction in all the colleges is open to all qualified persons, without distinction of sex. The Constitution of the State provides for the perpetuation of the University, with all its departments.

GOVERNMENT

The government of the University 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 Alumni Association, and the President of the University, as members *ex officio*, and sixteen other regents appointed by the Governor and approved by the State Senate. The internal management of the University is in the hands of the President and the Academic Senate, which is composed of the faculties of the University.

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 17th 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, Mills-paugh Hall, named to commemorate Jesse F. Mills-paugh, who was president during the period 1904–1917. The School moved into its new quarters in September, 1914.

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. The name of the School was changed to 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.

The University of California at Los Angeles is administered by the Director, who is the administrative head, appointed by the Regents on the recommendation of the President of the University. The staff of instruction of the University of California at Los Angeles is organized as a council of the Academic Senate of the University.

ADMISSION TO THE UNIVERSITY

ADMISSION TO UNDERGRADUATE STATUS

Beginning September, 1931,* an applicant for admission to the University in undergraduate status should be prepared to qualify by one of the following methods:

- (1) If the applicant is a high school graduate, but has not attended an institution of collegiate rank—

Admission by certificate (Plan I—page 19), or by examination (Plan II, A or B—page 20). The applicant must present evidence that he has completed, in a manner satisfactory to the Board of Admissions, the 15 units of prescribed subjects.

- (2) If the applicant has attended another collegiate institution—

Evidence satisfactory to the Board of Admissions must be presented concerning the work of the applicant at other institutions and the grades of scholarship attained therein. This evidence should consist of an official transcript of record, sent by the institution directly to the University Examiner, University of California at Los Angeles. In addition the applicant must show *either* that he has completed the requirements for junior standing in the college of the University to which he seeks admission (Plan III, A—page 23), or that he has completed in full the subject and grade requirements prescribed for the admission of high school graduates to freshman standing (Plan III, B—page 23).

An applicant who has attended another collegiate institution is not at liberty to disregard the collegiate record and apply for admission to the University on the basis of the high school record, but is subject without exception to the regulations regarding admission to advanced standing.

- (3) If the applicant has not been graduated from high school—

Admission only by examination in the 15 units of required subjects (Plan II, C—page 21).

* Until February, 1931, inclusive, graduates of accredited secondary schools in California will be admitted without examination only upon recommendation of the principal. Other applicants should be prepared in general to meet the requirements specified for the admission of students in September, 1931, but should communicate with the Recorder to learn the further particulars.

(4) Special Status—

Open only to persons 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. As a rule each applicant will be required to pass examinations. (See page 25.)

A form of application, and a form for certificates of the high school or collegiate record, will be supplied to any applicant for admission, upon request, by the Recorder, University of California at Los Angeles, 405 Hilgard avenue, Los Angeles, California. Applications should be submitted at a sufficiently early date to give ample time to prepare for the entrance examinations assigned for admission. These examinations are given annually by the College Entrance Examination Board in June.

A fee of \$3.00, payable at the time of application, is charged for the rating of collegiate credentials. Remittances should be made payable to the Regents of the University of California. No fee is charged for the rating of high school credentials in the case of applicants who have not attended an institution of collegiate rank.

The High School Program

The following schedule of high school subjects is regarded as providing adequate preparation for University work:

(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 zoology, or botany, or physiology)	1 unit
(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
(g) Unrestricted electives	5 (or 4) units
Total required for admission	15 units

This program of studies must be completed, with the required grades of scholarship, as a prerequisite to admission, by every applicant for admission to the University in freshman standing, and by every applicant

for admission to advanced standing whose record at other collegiate institutions, upon appraisal by the Board of Admissions, does not entitle the applicant to junior standing in the college of the University to which admission is sought.

Definition of the Subjects

The subjects named as requirements (a) to (f), inclusive, of *The High School Program*, in order to be accepted by the University, must conform in scope and content to the definitions of the College Entrance Examination Board. Similarly, under certain conditions (see Plan I, par. 3, *Grades*—page 19), two units or less of subjects presented as unrestricted electives, requirement (g), must conform to the definitions of the College Entrance Examination Board. A list of these definitions is published annually about December 1. Upon request of the Secretary of the College Entrance Examination Board, 431 West 117th street, New York City, a single copy of this document will be sent to any teacher without charge. In general there will be a charge of twenty-five cents, which may be remitted in postage.

For convenience there are listed in the following table the examinations offered by the College Entrance Examination Board in June, 1930, so arranged as to indicate the examinations which the University recognizes as acceptable equivalents for the several subjects of *The High School Program*:

<i>University of California Requirement</i>	<i>College Entrance Examination Board Examinations, June, 1930</i>
(a) History—1 unit	A. Ancient History; or B. European History; or C. English History; or D. American History (with civil government)
(b) English—3 units	1-2. Grammar, Composition and Literature; or Cp. Comprehensive Examination in English
(c) Mathematics—2 units	{A1. Algebra to Quadratics; and C. Plane Geometry
(d) Science—1 unit	Biology, or Botany, or Chemistry, or Physics, or Physiology and Public Health, or Zoology
(e) Foreign Language—2 units	Cp. 2. Two-year Latin, or Greek, or French, or German, or Italian, or Spanish

<i>University of California Requirement</i>	<i>College Entrance Examination Board Examinations, June, 1930</i>
(f) Mathematics—1 unit	A2. Quadratics and Beyond; or
or	{D. Solid Geometry; and
Science—1 unit	{E. Plane Trigonometry
or	Chemistry, or Physics
Foreign Language—1 unit	B. Third-year or Intermediate
or	French, or German, or Italian, or
	Spanish; or
	Cp. 3. Three-year Latin, or Greek,
	or French, or German, or Italian,
	or Spanish; or
	Cp. H. Third-year Greek
Foreign Language—2 units	Cp. 2. Two-year Latin, or Greek, or
(In a language other than	French, or German, or Italian, or
that presented under (e),	Spanish
above)	
(g) Unrestricted electives—4 (or 5) units. The applicant may select from the examinations enumerated above any not offered in fulfillment of requirements (a) to (f), inclusive; other examinations which may be offered under this requirement are:	
Foreign Language—Latin Cp. 4, Cp. H, Cp. k; French Cp. 4; German Cp. 4; Italian Cp. 4; Spanish Cp. 4;	
Mathematics—A, Elementary Algebra; B, Advanced Algebra; CD or cd, Plane and Solid Geometry; Cp. 3, Elementary Mathematics; Cp. H, Advanced Mathematics;	
Natural Science—Physical Geography;	
Drawing—Freehand Drawing and Mechanical Drawing.	

*
Electives in the High School Program

Electives in the high school should be so chosen as to enable the student to enter without difficulty the work of the college, and if possible, of the particular curriculum to which he seeks admission. Unless this precaution 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.

The high school subjects—other than those required for admission to the University—which are prerequisite for certain colleges and curricula and for which no equivalent courses are offered by the University during regular sessions, are: physics, 1 unit; chemistry, 1 unit; algebraic theory, $\frac{1}{2}$ unit; freehand drawing, 1 unit; and the first two years of Latin, 2 units. Instruction in these subjects, Latin excepted, may from time to time be provided by the University in the Extension Division or in the Summer Session.

College of Letters and Science: The inclusion of physics or chemistry, and at least two years of a foreign language, ancient or modern, in the high school program, will release the student from requirements otherwise prescribed for him in the University, and will thereby enlarge his opportunity for elective study. For the biological sciences, and for the pre-medical and pre-dental curricula, both chemistry and physics, as well as French or German, are strongly recommended. For mathematics, physics, or chemistry, the high school program should include, in addition to chemistry and physics, and French or German, three years' work in mathematics, including algebra, plane geometry, and algebraic theory. For the geological sciences, geometrical drawing, freehand drawing, and trigonometry should also be included. Preparation for the curriculum in architecture should include the high school subjects prerequisite for the Colleges of Engineering as given below, together with freehand drawing, one unit, and Latin or French, at least two units. The importance of the study of Latin in the high school in preparation for major work in English, in other languages, and in the social sciences, is emphasized. The modern foreign languages which are most likely to be helpful are French and German. A university course of basic importance in many curricula is Chemistry 1A-1B, taken normally during the freshman year; the high school prerequisite for admission to this course is chemistry, or physics and trigonometry.

Teachers College: The inclusion of physics or chemistry, and at least two years of a foreign language, ancient or modern, in the high school program, will release the student from requirements otherwise prescribed for him in the University, and will thereby enlarge his opportunity for elective study.

**College of Commerce:* Students will find it to their advantage to anticipate a portion of the University requirement in natural science by taking high school courses in physics and chemistry, and to obtain in high school a reading knowledge of some foreign language which will enable them to pass the examination in "Subject B" required of all students in this college. Matriculants who fail to present algebraic theory, $\frac{1}{2}$ unit, in addition to elementary algebra and plane geometry, will be at a disadvantage. Students are urged not to emphasize vocational courses in their preliminary programs, but to seek a broad foundation upon which later specialization may be built.

**Colleges of Engineering (Mechanics, Mining, Civil Engineering); College of Chemistry:* Matriculants will be seriously handicapped if they fail to present, in addition to plane geometry and elementary algebra,

* Only two years of Commerce, Engineering, Chemistry, and Agriculture are offered at the University of California at Los Angeles.

the following: algebraic theory, $\frac{1}{2}$ unit; trigonometry, $\frac{1}{2}$ unit; physics, 1 unit; chemistry, 1 unit; geometrical drawing, 1 unit. For the College of Chemistry there should be presented also French or German, at least 2 units.

**College of Agriculture:* In addition to plane geometry and elementary algebra, matriculants should present algebraic theory, $\frac{1}{2}$ unit; trigonometry, $\frac{1}{2}$ unit; and chemistry, 1 unit. For the curriculum in forestry or in landscape design, geometrical drawing, 1 unit, should be added.

A candidate for admission to professional curricula in Berkeley and elsewhere should consult pages 57-67 of this Circular and the appropriate announcements listed on pages 2 and 3 of cover.

PLAN I.—ADMISSION TO FRESHMAN STANDING BY CERTIFICATE

Effective September, 1931

Beginning September, 1931, a graduate of a high school or other secondary school may enter the University in freshman standing, without examination, provided the school was accredited† to the University of California in the year of the applicant's graduation (or, if the school was outside of California, provided it was accorded similar recognition by the University); and provided, further, that the applicant has complied with the following conditions:

1. *Graduation.*—The applicant must be duly certified as having graduated from a four-year course, aggregating at least fifteen (15) standard units, a unit being the measure of a subject pursued throughout the school year of from 36 to 40 weeks, and constituting approximately a quarter of a full year's work.

2. *Subjects.*—The applicant must present a properly certified high school record showing that he has completed the subjects of *The High School Program*, (a)-(g), inclusive, as described above on page 15.

3. *Grades.*—The requirement as to grades, which is based on a system of four passing grades (A, B, C, D), provides that no subject in which the applicant has received the fourth or lowest passing grade (D) may be counted in the total of fifteen (15) units required for admission. Moreover, the applicant's record must show that he has attained first or

* Only two years of Commerce, Engineering, Chemistry, and Agriculture are offered at the University of California at Los Angeles.

† The accrediting of secondary schools in California is regulated by order of the Regents of the University, originally enacted March 4, 1884. Principals' applications for the accrediting of their schools must be in the hands of the Recorder of the Faculties at Berkeley on or before the first day of December of each school year. The list of accredited schools is published by the University annually in the month of June or July. For blank forms of application for accrediting and for other information, school principals may communicate with the Recorder of the Faculties.

second grades (A or B) in at least ten (10) units of the subjects specified under requirements (a)-(g), inclusive, of *The High School Program*; but not more than two units of such grades in subjects presented as unrestricted electives, requirement (g), may be counted in the required total of 10 units of first or second grades, and then only if in subjects chosen from the following list (as defined by the College Entrance Examination Board): History, English, mathematics, natural science, foreign language, drawing.

PLAN II—ADMISSION TO FRESHMAN STANDING BY EXAMINATION

A. In the Deficient Subjects

(Effective September, 1931)

A high school graduate who is unable to qualify fully for admission by certificate and whose inability consists solely of deficiencies in the subject and grade requirements prescribed under Plan I, may in the discretion of the Board of Admissions be permitted to remove these deficiencies by passing appropriate examinations of the College Entrance Examination Board; and upon removing the deficiencies in this manner will be admitted to the University without further examination.

B. In Three Fields of Study

(Effective September, 1930)*

A high school graduate who is unable to qualify for admission without examination (as described under Plan I above), but who has completed in the high school the subjects of *The High School Program*, (a) to (g), inclusive, as described on page 15 may in the discretion of the Board of Admissions be admitted to the University upon passing, in a single College Entrance Examination Board period, a series of examinations representing three distinct fields of study. For the purpose of these examinations the subjects of *The High School Program* (see pages 15-17) are grouped into four fields, numbered 1 to 4 below. The candidate is permitted to select from these four fields any *three* in which to be examined.

1. History, 1 unit; or English, 3 units.

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

* Inasmuch as the examinations of the College Entrance Examination Board for 1930 have already been held (in June), applicants who are graduates of accredited California high schools and who cannot secure the principal's recommendation, or who are graduates of high schools outside of California and who do not meet the requirements of Plan I, will be unable to fulfill the requirements of this section until 1931.

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

4. 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).

C. In the Required Subjects, 10-15 Units
(Effective September, 1930*)

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 provided under Plan II, A or B, above, may be admitted to the University solely upon passing examinations of the College Entrance Examination Board in the several subjects of *The High School Program* (page 15). Examinations will be required in not less than 10 nor more than 15 units of subjects. The precise number of examinations which each applicant must take will be determined by the Board of Admissions.

ENTRANCE EXAMINATIONS

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.

As a basis for matriculation credit at the University of California an examination rating of at least 60 per cent in each subject presented is required.

A circular concerning the examinations of the College Entrance Examination Board may be obtained by addressing the Recorder.

COLLEGE ENTRANCE EXAMINATION BOARD

The examinations of the College Entrance Examination Board are conducted annually in various cities and towns of the United States and abroad. The examinations are usually held during the third week in June; in 1931, June 15-20.

* Inasmuch as the examinations of the College Entrance Examination Board for 1930 have already been held (in June), applicants who are graduates of accredited California high schools and who cannot secure the principal's recommendation, or who are graduates of high schools outside of California and who do not meet the requirements of Plan I, will be unable to fulfill the requirements of this section until 1931.

On the Pacific Coast examinations are usually held at Los Angeles, Berkeley, Carpinteria, La Jolla, Ojai, San Francisco, Santa Barbara, Stanford University, Portland, Seattle, Spokane, Tacoma.

The office of the College Entrance Examination Board is at 431 West 117th street, New York, N. Y. Blanks for applying for admission to the examinations may ordinarily be obtained from the University Examiner, University of California at Los Angeles, as well as from the Board in New York. These blanks, with fees, must be filed in the New York office, according to the following schedule: for examinations to be taken in the United States west of the Mississippi River or in Canada, at least four weeks in advance of the first day of the examinations; for points in the United States east of the Mississippi River, three weeks in advance; for points outside the United States and Canada, six weeks in advance.

If the application and fee are received on time, the fee will be \$10 for each candidate, wherever examined. Late applications will, when possible, be granted, but in such cases the fee is \$15. The fee should be remitted by postal order, express order, or draft on New York, to the order of the College Entrance Examination Board.

When a candidate has failed to obtain the required blank form of application for examination, the usual examination fee will be accepted if the fee arrives not later than the specified date accompanied by a memorandum containing the name and address of the candidate, the exact examination center selected, and a list of all the subjects in which he expects to take the Board examinations.

Applications for examinations will be accepted later than the dates named, if in the opinion of the Secretary it is still possible to arrange for the examinations requested, but only upon the payment of an additional fee of \$5.00 by each candidate concerned.

A list of places at which examinations are to be held in June, 1931, will be published about March 1. Requests that the examinations be held at particular points should be transmitted to the Secretary of the College Entrance Examination Board not later than February 1. The designation of the center to which the candidate will go for examination is an indispensable part of his application for examination.

Detailed definitions of the requirements in all examination subjects are given in a circular of information published annually about December 1 by the College Entrance Examination Board. Upon request a single copy of this document will be sent to any teacher without charge. In general a charge of twenty-five cents, which may be remitted in postage, will be made.

PLAN III—ADMISSION TO ADVANCED STANDING

Effective September, 1931

An applicant for admission to the University in advanced standing, in order to be so 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 the record which is poor or barely passable, is required for admission in all cases.

In addition, every applicant will be required, as a prerequisite to admission, to meet the conditions specified in paragraph A or in paragraph B, below:

A. The applicant's record must show that he has completed in a collegiate institution with courses and grades acceptable to the Board of Admissions all the requirements for junior standing in the college of the University to which he seeks admission.

B. The applicant must present evidence that he has completed the prescribed subjects of *The High School Program* (see page 15) and that he attained in those subjects the grades required of applicants for admission without examination to freshman standing (see page 19). Under the terms of this requirement it may be possible for an applicant, who was not eligible for admission to freshman standing without examination at the time of his graduation from high school, to hasten his admission by removing, upon the basis of work completed at another collegiate institution (or junior college) or by passing appropriate examinations of the College Entrance Examination Board, any deficiencies in the subject and grade requirements for admission to freshman standing which he may have had at the time of graduation from the high school. Collegiate credit, however, employed to remove deficiencies existing at the time of graduation from high school will yield no credit towards advanced standing in the University. Similarly the grades received in such courses will be disregarded in determining the student's collegiate standing for admission.

Requirements for Junior Standing.—A candidate for admission with junior standing under the terms outlined in paragraph A, above, should refer to the published statements concerning the requirements of the several colleges.

Subject A: English Composition.—Credit for Subject A (English Composition) is given upon certificate only to those students who enter the

* A fee of \$3.00, payable at the time of application, is charged for the rating of collegiate credentials. Remittances should be made payable to the Regents of the University of California.

University with at least 60 units of advanced standing, provided they present credentials showing the completion elsewhere of the required training in composition. In all other cases an examination by this University at Los Angeles or elsewhere is required.

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 Europe and Asia in April of each year. In 1930 these centers were Tokyo, Pyengyang, Harbin, Peking, Shanghai, Beirut, Smyrna, Athens, Zagreb, Vienna, Budapest, Warsaw, Krakow, Berlin, Munich, Rome, Naples, Palermo, Paris, Brussels. 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 course but who, by reason of special attainments, may be prepared to undertake certain courses, or a specialized group of courses for a limited period; by virtue of their status, special students are not candidates for any degree.

The University has no "special courses" except in the Extension Division; all courses under the "University of California at Los Angeles" 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.

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

Applicants will not be admitted directly from high school 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 to regular status will be required to carry the work of the regular curriculum, but may, with the approval of the dean of their college, pursue 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.

Entrance examinations in the subjects of fundamental importance for the work proposed may be required especially of applicants under twenty-five years of age. All applicants for admission to special status may be required to take a psychological test, which will be given upon a date to be announced. Further information may be obtained from the University Examiner.

Upon petition, special students may be excused from the exercises in physical education; such students, however, in case they become candidates for degrees, must meet this requirement in full. Students over twenty-four years of age at the time of admission are excused from military science.

A special student may at any time attain the status of regular student by satisfying all the matriculation requirements in effect at that time.

Importance of Early Application.—Application should be submitted at a sufficiently early date to give time to prepare for the entrance examinations assigned for admission.* In general, admission to the University in special status can be arranged only by personal conference with the University Examiner; in addition, a conference with the dean or other representative of the department, school, or college concerned may be necessary.

GRADUATE INSTRUCTION

Graduate instruction is not offered at the "University of California at Los Angeles," but it is offered at the "University of California Summer Session in Los Angeles." This statement applies not only to work leading toward higher degrees but also to work beyond the bachelor's degree leading toward the general secondary teaching credential. Applicants are referred to the Graduate Division of the University, at Berkeley, and to the professional schools and colleges of the University. The list of bulletins of these departments will be found on the inside pages of the cover.

* The examinations given annually in June by the College Entrance Examination Board constitute the only regular examinations for admission to the University of California.

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 entitling applicant to status as a student; (2) enrolling in courses according to instructions which will be posted.

MEDICAL EXAMINATION

Each applicant must also appear before the University Medical Examiner 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 Medical Examiner, of successful immunization against smallpox is required.

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. Should the student withdraw early, he should note that any refund of fees is calculated, not from the date of his registration, but from the date of the beginning of classes for the half-year.

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 Examiner 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 University Examiner, 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.

A special student by virtue of his status is not a candidate for any degree. The privileges of the University are normally extended to a special student for a period of not more than one year. This period, however, may be extended from time to time at the discretion of the appropriate committee; petitions for renewal of such privileges should be filed with the Recorder.

A special student may attain regular status by meeting the requirements for matriculation. The University Examiner will determine what will be required of each special student desiring to qualify for regular status.

STUDENT'S RESPONSIBILITY

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 of 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 Recorder. Attendance upon all exercises is obligatory pending receipt of formal permission to discontinue.

For regulations concerning withdrawals from the University see page 37 of this Circular.

Each student is responsible for compliance with the regulations printed in the current Circular of Information and in the Announcement of Courses, and with official notices published in the *Daily Bruin*.

It is the duty of the student to inform the Recorder 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 124 units in the College of Letters and Science or 128 in the Teachers College, distributed according to the requirements of the college, is necessary for a degree.

A student on scholastic probation 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 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 in this college a student may not receive credit for more than 16 units of work. 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 not on probation, may without special permission submit a program $\frac{1}{2}$ unit in excess, providing 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.

A student in the Teachers College may without special permission present a study-list aggregating from 12 to 17 units per half-year.* During the first half-year in residence in this college no student may receive credit in more than 17 units of work. 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 from all deficiency and who is not on probation, may submit, as under the provisions above for the College of Letters and Science, a program of $\frac{1}{2}$ unit in physical education in excess of the limit announced, with the understanding as above, that only the allowable maximum for the college may be counted. A student whose record during the preceding half-year included one or more deficient grades (who did not pass in the entire program undertaken) will be restricted to a program of 16 units, within which must be included all prescribed subjects such as physical education. All courses in military science and physical education are to be counted in study-list totals.

Students enrolled in the lower division who are carrying work preparatory to admission to the junior year of the College of Agriculture, the College of Chemistry, the Colleges of Engineering, the College of Commerce, or the College of Mining and who are free from deficiencies, may register for not more than 18 units of new work. Students with deficiencies will be limited to 16 units, including repeated work.

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

Commerce A (Typing) by 1 unit.

Commerce B (Shorthand) by 2 units.

Course in Subject A by 2 units.

If they later transfer to a non-professional curriculum in Letters and Science, their credits will be reduced in accordance with the limits of that college.

A special student has free election of subjects within the fields specified at the time of his admission. His program is limited to 16 units.

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, and 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 be obtained from the Recorder 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 \$2.00 will be charged. The results of each examination will be made known the day following the examination. 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 (2) 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, will receive credit for Subject A.

A student who enters the University of California at Los Angeles with 60 or more units of advanced standing, including 6 or more units in English Composition, or who has passed an examination in Subject A authorized by the University of California, will be exempt from the requirement in Subject A.

EXAMINATIONS FOR STUDENTS ENTERING THE TEACHERS COLLEGE

The following examinations for students entering the Teachers College will be administered at the time of matriculation, not to determine whether the student may be admitted but to assist in determining his status after admission:

(1) General Intelligence Test: required of every student at the time of admission to the Teachers College.

(2) 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.

MILITARY SCIENCE AND PHYSICAL EDUCATION

Every student, man or woman, shall, upon admission, report immediately to the proper officer for enrollment in physical education,* follow-

* 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.

ing the Registration Circular or the announcements which may be posted on the bulletin boards. Every able-bodied male student 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. A fee of fifty cents per semester must be paid to the Comptroller of the University in military courses in which government property is issued to the student. A fee of \$5.00 is charged every man registered in physical education for the use of the standard gymnasium suit. The student shall list these courses 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 will be excused from military science and physical education.

A circular containing 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 Recorder.

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 Director 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 Recorder. On recommendation of the professor in charge of the work, and with the approval of the Director, the dean is authorized to reinstate the student and will notify the Recorder of such reinstatement.

The student is referred to the announcements of the departments of Military Science and Tactics and Physical Education contained in the Announcement of Courses.

AMERICAN INSTITUTIONS

A course in the Constitution of the United States including the study of American institutions and ideals is required for any university degree or teaching credential. The prescribed course for all students, except those whose major subject is political science or history, is American Institutions 101.

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 course in a systematic manner.

Any instructor, with the approval of the Director 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 will 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, or D 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 University Examiner 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, then he must make all arrangements *in advance* with the department concerned and with the University Examiner.

GRADES OF SCHOLARSHIP: GRADE POINTS

The final result of the work of the students in every course of instruction will be reported to the Recorder 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 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 by reexamination or repetition of the course 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 in and after May, 1931, 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 reëxamination with the class next repeating the subject or a special examination out of class; in courses of the Summer Session, however, reëxaminations 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 Recorder, 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 \$5.00 is charged, save that there is no fee for a reëxamination (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 will not exceed \$10.00. 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 Recorder.

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

Removal of grade "E" (conditioned) by reëxamination 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 Recorder 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 is removable 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

Note.—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. For this reason, a student who is in danger of dismissal under the regulations should present his case to the Committee on Reinstatement at a date sufficiently early so that a possible favorable decision may be reached in time to prevent dismissal.

1. Any student whose scholarship in any half-year falls *below* an average grade of "D" in all work undertaken, will be dismissed.

2. (a) Any student whose entire University record, computed to the close of any half-year, shows a cumulative deficit of ten (10) or more grade points (regardless of the number of units passed) will be placed on probation.

(b) If the student fails during any single half-year while on probation to maintain an average grade of at least "C" in all work undertaken, dismissal will follow; otherwise, probationary status will be continued until such time as the cumulative grade point deficit is reduced to an amount less than ten (10).

3. By special action of the Committee on Reinstatement any student who in any single half-year fails to attain grade points in an amount equal to the number of units undertaken, may be placed on probation for one-half year, and be required during the probationary half-year to maintain at least a "C" average under the penalty of dismissal.

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 on scholastic 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 said censure or suspension. A student who withdraws from the University before the end of the session without giving notice of withdrawal to the Recorder, may be debarred from subsequent registration.

DISCIPLINE

The University authorities expect all students to set and 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 Director of the University of California at Los Angeles is entrusted with the administration of student discipline with full power to act.

Student Self-Government.—One of the most responsible committees of the Associated Students is the University Affairs Committee, a body of students which passes on cases of misconduct among students. To this committee the Director customarily refers cases of student delinquencies, including cases of cheating and dishonesty in examinations and classroom work. The committee reports to the Director its findings of guilt or innocence and suggests suitable penalties.

DEGREES: TEACHING CREDENTIALS

Detailed statements of requirements for degrees and teaching credentials issued by the University will be found under headings of College of Letters and Science and The Teachers College, and in the Announcement of Courses, under the different departments.

Every 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 Recorder 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 this statement from the State Board, and in part upon the general University requirements in military science, physical education, Psychology X, 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. It is permissible to offer two summer sessions (or two intersessions, or one summer session and one intersession) 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. This regulation applies both to students entering this University from another institution and to students transferring from one college to another within this University.

FEES*

The incidental fee, \$20.00, which must be paid on date of registration, covers expenses of students other than the cost of their instruction and entitles them to the use of the gymnasium, tennis courts, swimming pools,

* 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 to 11:30 a.m. on Saturday.

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. 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. Students registering for less than five units of work will have half the incidental fee (\$10.00), refunded six weeks after the registration date.

Non-resident Tuition Fee.—Non-residents of California* are charged a tuition fee of \$75.00 each half-year, which shall be paid on the day of registration.

Every entering student and student returning to the University after an absence of a half-year or longer, is required to fill out a "Statement as to Residence" on the day of registration, and his status as to residence or non-residence will be determined by the Attorney for the University shortly 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 regis-

* There follows a reprint of the resolution adopted by the Finance Committee of the Regents of the University, June 19, 1923, in accordance with the provisions of Section 1894 $\frac{1}{2}$, Political Code of California. "No person shall be considered eligible to register in the University as a resident of the State of California unless he has resided in the State for more than one year immediately preceding the semester during which he proposes to attend the University. The residence of each student shall be determined in accordance with the rules for determining residence prescribed by the provisions of Section 52 of the Political Code of California, provided, however, that every alien student who has not made a valid declaration of intention to become a citizen of the United States as provided by the laws thereof, prior to the opening day of the semester during which he proposes to attend the University, shall be deemed to be a non-resident student, and further provided that every student shall be deemed to be a resident student who is either—

(a) A citizen of the United States who has attained his majority, according to the laws of the State of California, and who for a period of one (1) year has been entirely self-supporting and actually present in the State of California, with the intention of acquiring a residence therein; or

(b) A minor child, a citizen of the United States, who does not receive, and has not received, for more than one (1) year immediately preceding his entrance into the University, directly or indirectly, any support or financial assistance from his father, provided such minor lives with his mother, who is, and has been, continuously for a period of more than one (1) year, actually present in the State of California, with the intention of making her home therein. Every person who has been, or who shall be hereafter classified as a non-resident student shall be considered to retain that status until such time as he shall have made application, in the form prescribed by the Recorder, for reclassification, and shall have been reclassified as a resident student by the attorney appointed to act for the Regents in non-resident matters."

Section 25, Civil Code of the State of California.

"Minors are all persons under twenty-one years of age; provided that this section shall be subject to the provisions of the titles of this code on marriage and shall not be construed as repealing or limiting the provisions of section 204 of this code; provided, further, that upon the lawful marriage of any female of the age of eighteen years or over but under the age of twenty-one years, such female shall be deemed an adult person for the purpose of entering into any engagement or transaction respecting property or any contract, the same as if such person was over twenty-one years of age."

tration. The Attorney will not consider applications for reclassification filed later than these dates. Application for a change in classification during some preceding semester will not be received under any circumstances.

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.

Evaluation of credentials for advanced standing, \$3.00.

Late application for admission, \$2.00.

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

Late filing of registration book, \$2.00. (More than seven days after registration.)

Late examination in Subject A, \$2.00.

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

For courses dropped after the third week of the semester, \$1.00 per course.

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 Announcement of Courses, where such fees are listed for each department. The total charge for students in the elementary laboratories may amount to from \$5 to \$30 per year.

The military uniform and textbook fee is fifty cents a semester for students in the basic course. Military training is prescribed for all first and second-year undergraduate male students who are citizens of the United States, able-bodied and under twenty-four years of age when admitted to the University. The United States furnishes uniforms and some textbooks for the use of students receiving military training, and the student is responsible for the articles issued to him. The amount necessary to replace articles not returned by the student will be collected by the Comptroller.

Key deposit: A deposit of \$1.00 is required on each locker or University key issued to a student, a faculty member, or an officer of the University. This deposit is refunded in full upon return of the key.

Deposit required of applicants for teaching positions who register with the Appointment Secretary: Persons registering with the Appointment

Secretary will be required to pay \$5.00 to cover clerical cost of correspondence and copying of credentials.

Other expenses: Gymnasium outfit for men, \$5.00; for women, about \$8.00; books and stationery, from \$18.00 to \$40.00 per year. Every student is eligible to membership in the Associated Students of the University of California at Los Angeles. The cost of membership is \$10.00 per year. The membership card entitles the holder to participation in the affairs of the Associated Students; a subscription to the *California Daily Bruin*; free admission to many athletic contests and reduction in admission to all other athletic contests, as well as dramatic, social, and similar events that are under the jurisdiction of the Associated Students.

SCHEDULE OF REFUNDS

Dates are computed from the first day of instruction of the semester.

Incidental Fee of \$20.00

To end of first week.....	Refund \$17.50
From first week to end of third week.....	Refund 10.00
Thereafter, no refund.	

Non-Resident Fee of \$75.00

To end of first week.....	Refund \$65.00
From first week to end of third week.....	Refund 50.00
From third week to end of sixth week.....	Refund 35.00
From sixth week to end of twelfth week.....	Refund 15.00
Thereafter, no refund.	

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 receipt. Students should preserve their receipts.

SCHOLARSHIPS

The Committee on Scholarships of the University of California at Los Angeles is authorized to award a limited number of scholarships annually to students in the University of California at Los Angeles. The Committee rates all candidates as to scholarship, need, and character, and bases its recommendation 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 Recorder on or before the 15th 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 Recorder.

The scholarships to be awarded for the year 1930-31 are as follows:

University Scholarships: ten of \$200 each, and ten of \$150 each.

Charles N. and Jennie W. Flint Scholarships: two of \$150 each.

Friend of the University of California at Los Angeles Scholarships: two of \$250 each, to be awarded to students in the department of Economics.

R. B. Campbell Scholarships: four of \$50 each, to be awarded to freshmen who have completed a half-year at the University of California at Los Angeles.

Rotary Club of Beverly Hills Scholarship of \$300, to be awarded to "the best qualified male student."

Lena De Groff Scholarships: one of \$200, and two of \$150 each.

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.

MISCELLANEOUS

LIVING ACCOMMODATIONS

No dormitories are maintained by the University. The cost of board and lodging in boarding houses will probably be from \$55.00 to \$65.00 a month. For students living in housekeeping rooms and boarding themselves, accommodations may be found at a rent of \$20.00 to \$40.00 a month (the expense for food must be added to this), but this plan is not generally recommended. Student apartments for two will probably rent at from \$50.00 to \$75.00 a month. *Women are not, however, permitted to live in apartments unless satisfactory arrangements concerning chaperonage are made in advance with the Dean of Women.* Families, or groups of mature students, who wish to rent furnished houses or apartments should

apply to real estate agents in Los Angeles, or in the communities near the new campus: Beverly Hills, Sawtelle, Santa Monica, Westwood, and others.

No woman is permitted to complete her registration if her living accommodations are not approved by the Dean of Women. Lists of approved accommodations may be obtained at the office of the Dean of Women, 116 Royce Hall.

A further list of accommodations for men may be obtained at the office of the Dean of Men, 212 Royce Hall.

The ordinary yearly expenses of a student will probably be at least \$800.00.

EMPLOYMENT

Students desiring employment other than teaching and tutoring should register with the Alumni Bureau of Occupations. Confidential reports on the character and ability of applicants will be furnished prospective employers on request.

Limited opportunities exist for women's employment on an hourly basis in the following fields: stenography, typewriting, general office work, housework, care of children, serving as waitress, etc. At the present time students who assist with housework or the care of children give an average of three hours' work a day in exchange for board and room and \$10.00 a month.

Many men students exchange two hours' service per day for room and board.

With reasonable diligence a student can devote some time to outside work without seriously interfering with University work 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 purpose at the University, namely, his education. Only in rare instances can a student be entirely self-supporting.

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, the student should not come to Los Angeles expecting to become self-supporting at once, but he should have on hand sufficient funds to cover the expenses of the first half-year.

Applicants for employment in teaching or tutoring should apply at the office of the Appointment Secretary, 145 Library. 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 for the service rendered by this office.

LIBRARY, GYMNASIUM, MEDICAL FACILITIES

THE LIBRARY

The Library has 141,000 volumes that are accessioned; the reading rooms accommodate about 900 students. Approximately 1300 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.

GYMNASIUM AND ATHLETIC FACILITIES

Plans are being perfected for the immediate construction of separate gymnasiums for men and women, each to contain a swimming pool. These will be conveniently located with respect to athletic grounds and to tennis and handball courts.

MEDICAL FACILITIES

The University of California at Los Angeles provides on the campus for the care of emergencies, medical service, with a physician and a trained nurse in charge. There are no facilities for hospital care. Students are entitled to medical consultation and advice. Every entering student receives a medical examination.

FRESHMAN DISCUSSIONS

The Freshman Discussion Groups afford an opportunity, not ordinarily available, for the freshman to become acquainted with interesting features of University life. Discussions of these features, such as Sororities and Fraternities, College Football, Use of the Library, How to Study and to Take Notes, How to Get into Activities, will be led by selected members of the faculty, administration, and officers of the student body.

MUSICAL EVENTS

The regular musical events of the academic year consist of the Christmas Concert by the University Choral Club presenting a program of carols, a Symphony Choral Concert in conjunction with the Los Angeles Philharmonic Orchestra, and a series of public recitals by the University Orchestra on the campus. A notable feature of the University year will be frequent organ recitals by eminent organists. The installation of the pipe organ in Josiah Royce Hall will be completed in the summer of 1930.

THE ASSOCIATED STUDENTS

The Associated Students administers and controls the extra-curricular activities. 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 coordinates the work of these boards and administers the general business of the Association.

The financial and athletic interests of the Associated Students are administered by the Graduate Manager of the Associated Students.

The University Affairs Committee makes recommendations to the Director as to innocence or guilt and suitable penalties in cases of misconduct among the students.

The Associated Students' 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, and is in 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 SESSION

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 session 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 is \$30, 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 Summer Session in Los Angeles, 405 Hilgard Avenue, Los Angeles.

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

UNIVERSITY EXTENSION DIVISION

For those who desire instruction of University grade and can devote to it only the leisure hours after performance of their business or professional duties, the Extension Division offers large opportunity. Classes cover a wide range of subjects and meet at times and places convenient to the students. The Los Angeles office is at 817 Hillstreet Building.

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 Colleges of Engineering, and of the College of Chemistry; (b) the Teachers College, with curricula leading to the degree of Bachelor of Education.

A. COLLEGE OF LETTERS AND SCIENCE

The curriculum of the College of Letters and Science includes three elements that may be considered characteristic and essential:

1. *Requirements to secure breadth of culture.* In the present curriculum no specific courses are required, but the student must select courses within certain designated groups, some of the groups being alternatively elective. These groups have been chosen to represent the more important fundamental types of human intellectual endeavor. At present these requirements are limited to the lower division, but the student is given a wide freedom of election in the upper division to continue cultural studies of his own choice.

2. *Requirements to provide for intensive study* in a field of the student's choice, carried through several years and including work of a distinctly advanced character in the "major."

3. *A reasonable freedom of elective time.* Freedom of election gives the student an opportunity to develop his personal power and initiative, but it also makes possible an unwise selection of courses. The College aims to minimize the dangers of an elective system of studies by moderate requirements to ensure proper distribution and concentration; and by the development of the faculty adviser system.

LOWER DIVISION

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.

Students who transfer from other colleges of the University of California or from other institutions will be required to meet the junior certificate requirements, but, if the credit allowed them by this University amounts to sixty or more units, they will be given junior standing and permitted to complete junior certificate requirements simultaneously with upper division work.

In the lower division of the College of Letters and Science it is expected that the student, in addition to fulfilling the prerequisites for the major work upon which he will concentrate in the upper division, will make an effort to establish a basis for that breadth of culture which will give him a realization of the methods and results of some of the more important types of intellectual endeavor, and a mental perspective that will aid him in reaching sound judgments. The junior certificate requirements were designed to provide in some degree for the accomplishment of this purpose, without unduly limiting the student's opportunity to satisfy his individual tastes and preferences.

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 will 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 these junior certificate requirements. It is desirable that the student should so arrange his high school program as to reduce the required work in the fields of foreign language and natural science. This makes his program more flexible, gives him a greater freedom of choice, and prepares him to pass more quickly into advanced work or into new fields of study. In no case, however, does the satisfaction of junior certificate requirements in the high school reduce the number of units required in the University for the junior certificate (60) or for the degree (124).

The degree requirement of 124 units is calculated on the assumption that the student will normally take 64 units of work in the lower division, including the prescribed work in military science and physical education, and 60 units in the upper division. However, 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.

§(a₂) Psychology X.

(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. 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 must be presented for admission to the University, except that until and including February, 1931, students who are recommended graduates or accredited secondary schools in California may make up deficiency in these subjects either in the University Summer Session or by passing College Entrance Examination Board examinations.

(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 (3a)*, 3 units (1 high school credit).

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

Astronomy 1, 11.

Biology 1, 12.

Botany 1*, 2*.

Chemistry 1A*, 1B*, (2A-2B)*, 5*, 6A*, 6B*, 8A, 8B.

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

Paleontology 1.

Physics (1A-1B)*, (1C-1D)*, (2A-2B)*, 4A, 4B.

Physiology 1.

Zoology 1A*, 1B*.

(e) *Year-Courses.* A year course in each of *three* of the following groups. This requirement must be met in the fall and spring sessions, and 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.

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

‡ 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 31 of this Circular.

§ Not required, 1930-31, because not offered.

Group 1—English and Public Speaking

English 1A-1B, 56A-56B; Public Speaking 1A-1B.

Group 2—Foreign Languages

French: any two consecutive courses of A (or A²), B, C, D, 5A, 5B, or any upper division year sequence.

German: any two consecutive courses of A, B, C, D, CD, or any upper division year sequence.

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

Latin: any year sequence from the following: C, D; 1, 5, 102, 106.

Two years of high school Latin are accepted as the equivalent of a year course.

Spanish: any two consecutive courses of A (or A²), B, C, D, CD, 50A-50B, or any upper division year sequence.

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.

Geography 1A-1B.

History 4A-4B.

History 5A-5B.

History 8A-8B.

Political Science 3A-3B.

Political Science 51A-51B.

Psychology 1A-1B.

Group 5—Philosophy

Philosophy 1A-1B.

Philosophy 3A-3B.

Summer Session Courses.—Students who desire to satisfy the specific subject requirements for the junior certificate in the intersession or summer sessions may use only those courses which are the equivalents 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" or the suffix "(LA)."

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

University Extension.—Certain courses offered in the Extension Division may be accepted in fulfillment of some of the junior certificate requirements. A list of such courses may be obtained from the Director of the Extension Division.

Duplication of credit in modern foreign language.—No credit is allowed for duplication of high school work, either in units toward graduation or in the specific subject requirement for the junior certificate. Thus, a student who has credit for two years of French in the high school will receive no credit for French A or A². If, however, the amount of duplication is less than two high school years, this rule does not apply save as to the specific requirement in foreign language for the junior certificate.

The following outline shows the correct sequence of courses:

<i>The student who has credit for</i>	<i>takes</i>	<i>with credit for that course of</i>
1 year of high school work*	A ² (French, Spanish)	3 units
2 years of high school work	B	5 units
3 years of high school work	C or CD (German, Spanish)	3 units 5 units
4 years of high school work	D (French, Spanish) Upper division courses (German)	3 units

Honorable mention with the junior certificate.—Honorable mention will be granted with the junior certificate in accordance with the regulations on Honors, page 56.

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* 124, of which at least 112 must be in courses chosen from the Letters and Science List of Courses (see page 55).

2. The student must attain as many grade points (quality units) as there may be time units (quantity units) in the credit value of all

* If A² is not offered, students may be advised to enroll in course A.

courses in which he may have 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 35.

3. At least 54 units of college work must be completed after the receipt of the junior certificate.

4. At least 36 units of work completed in the upper division courses specified in the Letters and Science List of Courses (see page 55).

5. A major of 24 upper division units in one of the following subjects which carries the designation "M" must be completed according to the rules given below under the heading "Majors for the A.B. Degree."

Art	Latin, M
Astronomy	Mathematics, M
Botany, M	Mechanic Arts
Chemistry, M	Military Science
Economics, M	Music
Education	Philosophy, M
English, M	Physical Education for Men
French, M	Physical Education for Women
Geography, M	Physics, M
Geology, M	Political Science, M
German, M	Psychology, M
Greek	Spanish, M
History, M	Zoology, M
Home Economics	

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

Not more than six units in courses numbered in the 300 and 400 series will be accepted toward the A.B. degree.

7. All candidates for the Bachelor of Arts 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 two summer sessions (or two intersessions, or one summer session and one intersession) 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. This regulation applies both to students entering this University from another institution and to students transferring from another college 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.

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.

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 Director of the University of California at Los Angeles, require the student to withdraw from the college.

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

MAJORS FOR THE A.B. DEGREE

A major (see item 5 above) consists of a substantial group of coördinated upper division courses. The 24 upper division units required in the major for the A.B. degree may represent courses in one or more departments.

Majors may be offered for the A.B. degree in any of the subjects or departments listed above with the designation M (see paragraph 5). The general outline of the content of these majors may be found in the respective department announcements in the Announcement of Courses. 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 A.B. degree.

The 24-unit major must, in its entirety, consist of courses taken in *resident instruction* at this or another university (fall, spring, and summer sessions).

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 29.

LETTERS AND SCIENCE LIST OF COURSES

At least 112 units offered for the degree of A.B. 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 Announcement for the year 1930-31:

Art. 1A-1B, 2A-2B, 4A-4B, 22N, 32A-32B, 103, 131A-131B, 134A-134B, 154, 161A-161B.

Biological Sciences. All undergraduate courses except Agriculture 1 and 10.

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, 123, 124, 130, 142, 170.

English.

English. All undergraduate courses except 161.

Public Speaking. All undergraduate courses except 10C-10D, 15, and 160C-160D.

French. All undergraduate courses except 190.

Geography. All undergraduate courses except 169.

Geology. All undergraduate courses.

German. All undergraduate courses.

History. All undergraduate courses except 11 and 190.

Home Economics. 1A-1B, 11A-11B, 110, 118A-118B, 120, 159.

Mathematics.

Mathematics. All undergraduate courses except 19 and 74.

Astronomy. All undergraduate courses.

Civil Engineering. All undergraduate courses.

Mechanic Arts. Mechanical Engineering D, 1, 2, 6, 7.

Military Science and Tactics. All undergraduate courses.

Music. 1A-1B, 3A-3B, 4A-4B, 9ABCD, 10ABCD, 55A-55B, 101A-101B, 105A-105B, 111A-111B, 150A-150B.

Philosophy. All undergraduate courses.

Physical Education for Men. 1 and 3.

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

Physics. All undergraduate courses.

Political Science. All undergraduate courses.

Psychology. All undergraduate courses except 119.

Spanish. All undergraduate courses except 190.

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 shall be 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 Recorder.
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-DENTAL CURRICULA

The College of Dentistry provides the following curricula: (a) a five-year program leading to the degree of D.D.S. (the first year's work to be taken in the College of Letters and Science at Berkeley or Los Angeles 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 Berkeley or Los Angeles, 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.

CURRICULUM A: FIVE YEARS

PROGRAM OF FIRST YEAR

(At Berkeley or Los Angeles)

General University requirements:

Subject A, Military Science, Physical Education, General Inorganic Chemistry and Qualitative Analysis, with laboratory (Chemistry 1A-1B)—10 units.

Course or courses chosen from the following list—at least 4 units:

Biology 10, Chemistry 5, Chemistry 8A, Chemistry 9, Physics 2A, Physics 2B, Zoology 1A, Zoology 1B. In special cases engineering physics may be used to fulfill the requirement.

Year course satisfying Requirement (e) for the junior certificate (see page 50, or a foreign language (at least 5 units).

Electives from Letters and Science List of Courses (page 55).

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 Berkeley or Los Angeles)

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:

General Chemistry 1A-1B.

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

At least 4 units chosen from the following list:

Biology 10, Physics 2A, Physics 2B, Zoology 1A, Zoology 1B. In special cases engineering physics may be used to fulfil the requirement.

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 pages 49-51).

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-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 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 student must be eligible for admission to senior standing in the College of Letters and Science. This requires the attainment of the junior certificate and the subsequent completion of a minimum of 22 units, of which at least 4 units must be in upper division courses. The total number of college units presented must be at least 92. The following tabulated curriculum represents the most satisfactory arrangement of work to meet the entrance requirements for the Medical School.

PRE-MEDICAL PROGRAM

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

	Units first semester	Units second semester
<i>First Year</i>		
Subject A (examination or course in Subject A) .....	.....	.....
Military Science	1½	1½
Physical Education	½	½*
¹ Psychology X	(1)	.....
Chemistry 1A-1B	5	5
² English 1A-1B	3	3
³ Foreign language	5	3 or 5
Electives as necessary to make up units .....	.....	.....
	16	16
<i>Second Year</i>		
Military Science	1½	1½
Physical Education	½	½
Zoology 1A-1B	5	5
Year course (Requirement "e" for the junior certificate)	3	3
Year course (Requirement "e" for the junior certificate)	3	3
Electives (Foreign language if necessary to complete 15 units for junior certificate)	3	3
	16	16
<i>Third Year</i>		
American Institutions 101	2	.....
Physics 2A-2B	4	4
*Chemistry 8A	3	.....
*Chemistry 9 .....	.....	3
Electives	7	9
	16	16

¹ University of California at Los Angeles requirement. Note: not required, 1980-81, because not given.

² 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.

³ 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.

* In and after August, 1982, the University of California Medical School will require Chemistry 5 and 8A instead of Chemistry 8A and 9.

B. For students who have completed *four* 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	1½	1½
Physical Education	½	½
¹ Psychology X .....	.....	(1)
Chemistry 1A-1B	5	5
² 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
	<hr/> 16	<hr/> 16

NOTE.—Only 16 units first semester will be counted toward degree.

	<i>Second Year</i>	
	Units first semester	Units second semester
Military Science	1½	1½
Physical Education	½	½
Zoology 1A-1B	5	5
*Chemistry 8A	3	.....
*Chemistry 9 .....	.....	3
Electives (Foreign language if necessary to complete 15 units for junior certificate)	6	6
	<hr/> 16	<hr/> 16
	<i>Third Year</i>	
American Institutions 101	2	.....
Physics 2A-2B	4	4
Electives	9	11
	<hr/> 15	<hr/> 15

PRE-AGRICULTURE

Detailed information concerning instruction in the College of Agriculture is contained in the Prospectus of the College of Agriculture, which may be obtained from the Dean of the College of Agriculture, Berkeley, California.

¹ University of California at Los Angeles requirement. Note: not required, 1980-81, because not given.

² 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 place of English 1A-1B.

* In and after August, 1982, the University of California Medical School will require Chemistry 5 and 8A instead of Chemistry 8A and 9.

PRE-COMMERCE

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. If this examination has not been passed by the end of the student's freshman year, enrollment in a course in foreign language will be required during the sophomore year. Students who complete a year of collegiate French or German with a minimum grade of C are excused from the Subject B examination.

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
‡ Psychology X	(1)
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
Natural Sciences	
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.	9
Mathematics:	
Mathematics 2 (Mathematics of Finance).....	3
Economics:	
Economics 1A-1B	6
Military Science, Physical Education	8
Electives	20
Total	64 units

Matriculation Mathematics.—A year each of elementary algebra and plane geometry is required. Students entering without these subjects must meet the requirement either by College Entrance Examination Board examinations or in the summer session. Credit for such work will not be counted as part of the 64 units. Beginning in September, 1931, all students must present these subjects for admission.

The prerequisite of Mathematics 2 is Mathematics 8 or two years of high school algebra and trigonometry. For mathematics 8, elementary algebra is necessary and at least a first course in algebraic theory is strongly recommended.

* 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 page 81 of this Circular.

‡ University of California at Los Angeles requirement. Note: not required 1930-31, because not offered.

The college courses acceptable as natural science are the following:

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

PRE-CIVIL ENGINEERING

FRESHMEN	Units	SOPHOMORE	Units
†Subject A .....	....	Mil. 2A-2B	1½ 1½
Mil. 1A-1B	1½ 1½	Physical Education	1½ 1½
Physical Education	1½ 1½	Mathematics 8C-4B	6 8
‡Psychology X	(1)	Mechanics 2	8
Mathematics 8-3A	8 8	Astronomy 8	1
Physics 1A-1B	8 8	Civil Engineering 8	2
Chemistry 1A-1B	5 5	Physics 1C-1D	8 8
Civil Engineering 1LA-1LB	2 2	Geology 1A	3
Civil Engineering 1FA-1FB	1 1		
Civil Engineering 3 (s.s.)	(8)		
	16 16		

RAILROAD AND IRRIGATION

Mechanics 1	8	....
Elective .....	....	....
	*	*

SANITARY AND MUNICIPAL

Chemistry 5	8	....
Elective .....	....	....
	*	*

PRE-MECHANICAL, PRE-ELECTRICAL, AND ‡PRE-AGRICULTURAL ENGINEERING

FRESHMEN	Units	SOPHOMORE	Units
†Subject A .....	....	Mil. 2A-2B	1½ 1½
Mil. 1A-1B	1½ 1½	Physical Education	1½ 1½
Physical Education	1½ 1½	Mathematics 8C-4B	6 8
‡Psychology X	(1)	Mechanics 2	8
Mathematics 8-3A	8 8	Mechanics 6-7	5
Chemistry 1A-1B	5 5	Physics 5	8
Physics 1A-1B	8 8	Physics 1C-1D	8 8
Civil Engineering 1LA-1LB	2 2	§Mechanics 10A-10B	2 2
Civil Engineering 1FA-1FB	1 1	Free Electives .....	....
	16 16		*

* Normal total, 18 units.

† An examination in Subject A (English Composition) is required of all undergraduate entrants at the time of their first registration in the University.

‡ Note: not required, 1980-81, because not given. University of California at Los Angeles requirement.

§ Students intending to major in Agricultural Engineering should omit Mechanics 6, Physics 5, and Mechanics 10A-10B, substituting therefor Economics 1A-1B, Civil Engineering 8, and elective units, their deficiencies in required courses in Agricultural Engineering to be made up after their enrollment at Berkeley.

PRE-MINING

NOTE.—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 143 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.

FRESHMEN	Units	SOPHOMORE	Units
†Subject A .....	.....	Mil. 2A-2B	1½ 1½
Mil. 1A-1B	1½ 1½	Physical Education	3 3
Physical Education	3 3	Mathematics 3C-4B	6 3
‡Psychology X	(1)	Physics 1C-1D	3 3
Mathematics 8-3A	3 3	Mineralogy 8A-8B	3 3
Chemistry 1A-1B	5 5	Geology 1A	3
Civil Engineering 1LA-1LB....	2 2		
Civil Engineering 1FA-1FB....	1 1	MINING	
§Mining 5	(1) (1)	¶Metallurgy 2	3 3
Physics 1A-1B	3 3	¶Mining 1A-1B	(3)
Civil Engineering 8 (s.s.)....	(8)	Mechanics 1	3
	16 16		* *
		METALLURGY	
		Chemistry 6A-6B	3 3
		Mechanics 1	3
			* *
		ECONOMIC GEOLOGY	
		Chemistry 6A-6B	3 3
		Paleontology 1	2
			* *
		PETROLEUM ENGINEERING	
		Chemistry 5	3
		Chemistry 8A	3
		Chemistry 9	3
			* *

* Normal total, 18 units.

† An examination in Subject A (English Composition) is required of all undergraduate entrants at the time of their first registration in the University.

‡ University of California at Los Angeles requirement. Note: not required 1930-31, because not offered.

§ Mechanics D is the nearest substitute for Mining 5 offered at the University of California at Los Angeles.

¶ 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.

PRE-CHEMISTRY

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.

Foreign Language Requirement.—A satisfactory reading knowledge of scientific German before the junior year is essential. A reading knowledge of French will be of advantage, also.

A student who has chosen his high school work with thought for his future will take approximately the following program:

FRESHMEN	Units	SOPHOMORE	Units
*Subject A	---	Mil. 2A-2B	1½ 1½
Mil. 1A-1B	1½ 1½	Physical Education	½ ½
Physical Education	½ ½	Mathematics 8C, 4B	6 8
†Psychology X	(1) ---	Physics 1C-1D	8 8
Mathematics 8, 8A	8 8	Chemistry 6A-6B	8 8
Physics 1A-1B	8 8	Chemistry 8A, 9	8 8
Chemistry 1A-1B	5 5	Elective	--- 8
‡German A-B	5 5		
	18 18		17 17

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.

Beginning in August, 1930, admission to the School of Jurisprudence in candidacy for the 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 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.

* An examination in Subject A (English Composition) is required of all undergraduate entrants at the time of their first registration in the University.

† University of California at Los Angeles requirement. Note: not required, 1930-31, because not given.

‡ German A is the equivalent of the first two years of high school German. Completion of this in high school will lessen the work of the freshman year.

The Hastings College of the Law offers a curriculum of three years leading to the degree 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 pages 49-51 of this Circular.

CURRICULUM IN NURSING

The Training School for Nurses, in connection with the University Hospital at Berkeley, 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 Berkeley or Los Angeles, the next two years in the Training School, and the final year in the Undergraduate Division at 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 California Training School for Nurses, Parnassus and Third Avenues, San Francisco.

See also page 67 of this Circular concerning curricula in Public Health, Public Health Nursing, and Nursing Education.

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 Bachelor of Arts; students desiring this program may spend the first year in the College of Letters and Science of the University of California at Los Angeles, but are advised to transfer to Berkeley upon its completion for the remainder of the program.

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.—The California College of Pharmacy in San Francisco offers a three-year program, leading to the degree of Graduate in Pharmacy, and a four-year program, leading to the degree of Pharmaceutical

Chemist. Admission to both curricula is based upon graduation from an approved high school course of four years, or an equivalent preparation.

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 one-year course 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 one-year course in the Department of Hygiene, leading to the Certificate in Nursing Education.

Optometry.—The College of Letters and Science in Berkeley offers a four-year program with a major in physics-optometry, leading to the degree of Bachelor of Arts and the Certificate in Optometry.

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.

B. 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 General Elementary Credential, valid in the eight grades of the elementary school.
3. The Junior High School 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.

**REQUIREMENTS FOR THE DEGREE OF BACHELOR
OF EDUCATION***

- I. Completion of 128 units of credit and grade points as specified on page 35.
- 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 from 64 to 68 units of university credit. The junior certificate, however, is awarded on completion of a minimum of 60 units of university credit, including:

- (a₁) General University requirements:

Subject A.

Military Science and Tactics, 6 units (men).

Physical Education, 2 units.

- (a₂) University of California at Los Angeles requirement:

Psychology X.†

- (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.

- (c) Matriculation Mathematics. Elementary Algebra and Geometry. Instruction in these subjects is not given in the fall or spring sessions of the University. Students entering the University after June, 1931, must present these subjects for admission. Students entering in the academic year 1930-31 upon the recommendation of the principal of an accredited California high school may make up deficiencies in these subjects after matriculation; but unless the study is carried on in the University Summer Session, credit will be granted only upon passing the College Entrance Board examinations.

* These regulations are effective in full for all freshmen matriculating after February, 1929, and for all students graduating in June, 1933, and thereafter. Students graduating between September 15, 1930, and June, 1933, will, in general, conform to the new regulations. Such students, however, will be excused from the requirement of 15 units of foreign language, providing they have completed two years of one language in the high school or 10 units in the University.

† Not required, 1930-31, because not offered.

- (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.

Biology 1, 12.

Botany 1*, 2*.

Chemistry 1A*, 1B*, (2A-2B)*, 5*, 6A*, 6B*, 8A, 8B.

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

Paleontology 1.

Physics (1A-1B)*, (1C-1D)*, (2A-2B)*, 4A, 4B.

Physiology 1.

Zoology 1A*, 1B*.

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

- (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, 3A-3B.

Mathematics—6 units chosen from the following: C, F, 2, 5, 6, 8, 9A, 9B, 3A or 3B. High school plane trigonometry (2e) and plane analytic geometry (2f) 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 54 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 during the summer sessions may be offered in satisfaction of 12 units of this requirement. Courses offered in the extension division are not acceptable as a part of the final year of instruction.
- (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 general elementary and kindergarten-primary credentials or the general 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 general junior high school credential. Requirements for both special secondary and general 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.

Full descriptions of the specific requirements for the various majors will be found listed under the appropriate heads in the Announcement of Courses.

- (f) In addition to the major, two minors are required. A minor is defined as from 12 to 18 units of coordinated courses in any University department. Ordinarily the last 6 units must consist of upper division courses. Descriptions of approved minors will be found in the Announcement of Courses. Students majoring in Art, Commerce, Home Economics, Mechanic Arts, Music, or Physical Education must complete as one minor 18 units of approved courses in Education.

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 56, 57.)

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The Announcement of the Curriculum in Social Service.

The Announcement of the School of Librarianship.

The Annual Announcement of the Los Angeles Medical Department.

The Catalogue of Officers and Students, Section I (Berkeley departments).
Published in September and February. Price, 30 cents.

The Catalogue of Officers and Students, Section II (University of California at Los Angeles). Published annually in October. Price, 25 cents.

The Annual Announcement of the California College of Pharmacy, San Francisco.

The President's Annual Report.

The Annual Register. Price, \$1.00.

The Announcement of the Summer Session, Berkeley.

The Announcement of the Summer Session, Los Angeles (405 Hilgard Avenue).

A circular containing detailed information concerning the scientific publications of the University, with prices, will be sent on application to the Manager of the University of California Press. The separate numbers of the several series appear at irregular intervals, making, however, uniform volumes.

University of California Bulletin

THIRD SERIES. Vol. XXIV, No. 2

ANNOUNCEMENT OF COURSES, 1930-31

**UNIVERSITY OF CALIFORNIA
AT LOS ANGELES**

JULY, 1930

**UNIVERSITY OF CALIFORNIA PRESS
BERKELEY, CALIFORNIA**

For Sale by the Associated Students' Store, Los Angeles

Price, 15 Cents

Administrative Bulletins of the University of California

1930-31. No. 2

The bulletins concerning the colleges, schools, and departments of the University are listed below. For copies of these circulars, and for further information, address the University of California Press, Berkeley, except in those cases where Los Angeles and San Francisco are indicated. The circulars are sent free except those for which a price (which includes postage) is given.

The Circular of Information, with reference primarily to the Undergraduate Division at Berkeley: containing general information about the University, its organization, requirements for admission to undergraduate status, and for the bachelor's degree in the colleges of Letters and Science, Agriculture, Commerce, and Engineering; students' fees and expenses. Sent free by mail by the University Press on request. A charge of 5 cents is made for copies distributed on the University Campus.

The Annual Announcement of Courses of Instruction in the Departments at Berkeley. Price, 30 cents.

The Circular of Information of the University of California at Los Angeles: containing general information about the University, requirements for admission to undergraduate status, and for the bachelor's degree in the College of Letters and Science and in the Teachers College; students' fees and expenses. Sent free by mail by the University Press on request. A charge of 5 cents is made for copies distributed on the University Campus.

The Annual Announcement of Courses of Instruction in the University of California at Los Angeles. Price, 20 cents.

The Prospectus of the College of Agriculture. General information concerning the College of Agriculture at Berkeley, Davis, Riverside, and elsewhere; its organization, requirements for admission, degrees, etc.

The Announcement of Courses in Forestry.

The Annual Announcement of the Farmers' Short Courses.

The Annual Report of the College of Agriculture and the Agricultural Experiment Station.

The Bulletins and Circulars of the Agricultural Experiment Station.

The Circular of the California School of Fine Arts, San Francisco.

The Annual Commencement Program containing the list of degrees conferred, scholarships, prizes, and other honors.

The Annual Commencement Program containing the list of degrees conferred.

The Annual Announcement of the School of Education.

The Announcement of the Graduate Division.

The Annual Announcement of the Hastings College of the Law, San Francisco.

The Annual Announcement of the School of Jurisprudence.

The Annual Announcement of the Medical School, San Francisco.

(Continued on third page of cover)

UNIVERSITY OF CALIFORNIA

ANNOUNCEMENT OF COURSES

UNIVERSITY OF CALIFORNIA
AT LOS ANGELES

FOR THE

ACADEMIC YEAR, 1930-31

JULY, 1930

UNIVERSITY OF CALIFORNIA PRESS

BERKELEY, CALIFORNIA

1930

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 AUGUST TO APRIL, AND TWICE A MONTH FROM MAY TO JULY.

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

Letters of inquiry concerning the University in general should be addressed to the *Recorder of the Faculties, 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.

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

CALENDAR, 1930-31

1930

- June 9-16, incl. Final examinations, second half-year, 1929-30.
 June 20, Friday The eleventh annual commencement at Los Angeles.
 June 23-July 19 Summer Course in Surveying.
 June 30-Aug. 9 Summer Session in Los Angeles.
 Sept. 2, Tuesday Applications for admission in September, 1930, with complete credentials, should be filed on or before this date.* Late filing fee \$2.00, payable when student registers.
- Sept. 10, Wednesday {8:30 a.m., Examination in Subject A.
 1:30 p.m., Intelligence Test (Teachers College).
 Sept. 11, Thursday Consultation with advisers by new students.
 Sept. 12, Friday 8:00 a.m.-4:00 p.m., Registration of old students, including re-entrants.
 Sept. 13, Saturday 8:00 a.m.-3:00 p.m., Registration of new students.
 Sept. 15, Monday 8:00 a.m., Instruction begins.
 Oct. 3, Friday Last day to drop courses from study-list without fee; last day to add courses to study-list.
 Nov. 8, Saturday End of 8-week mid-term period.
 Nov. 27-30, incl. Thanksgiving recess.
 Dec. 5, Friday Last day to drop courses from study-list without penalty of grade F (failure).
 Dec. 19-Jan. 1, incl. Christmas recess.

1931

- Jan. 24-Jan. 31, incl. Final examinations.
 Jan. 31, Saturday Applications due* for admission in February, 1931.
 Jan. 31, Saturday Last day of first half-year, 1930-1931.
 Feb. 4, Wednesday {8:30 a.m., Examination in Subject A.
 1:30 p.m., Intelligence Test (Teachers College).
 Feb. 6, Friday 8:00 a.m.-3:00 p.m., Registration of old students, including re-entrants.
 Feb. 7, Saturday 8:00 a.m.-3:00 p.m., Registration of new students.
 Feb. 9, Monday 8:00 a.m., Instruction begins.
 Feb. 27, Friday Last day to drop courses from study-list without fee; last day to add courses to study list.
 Mar. 16, Monday Last day to file applications for scholarships for the academic year 1931-32.
 Mar. 23, Monday Charter Day.
 April 1, Wednesday End of 8-week mid-term period.
 April 2-5, incl. Easter recess.
 May 1, Friday Last day to drop courses from study-list without penalty of grade F (failure).
 May 30, Saturday Memorial Day, a holiday.
 June 1-8, incl. Final examinations.
 June 12, Friday The twelfth annual commencement at Los Angeles.
 June 15-July 11 Summer Course in Surveying.
 June 22-Aug. 1 Summer Session in Los Angeles.

For the calendar of the departments of the University at Berkeley, address the Recorder of the Faculties, University of California, Berkeley. In 1930-31 the fall semester at Berkeley opens August 14, the spring semester January 10.

ADMINISTRATIVE OFFICERS
OF THE
UNIVERSITY OF CALIFORNIA AT LOS ANGELES

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WILLIAM WALLACE CAMPBELL, Sc.D., LL.D., President Emeritus of the University.
ERNEST CARROLL MOORE, Ph.D., LL.D., Vice-President and Director of the University of California at Los Angeles.
ROBERT MACKENZIE UNDERHILL, B.S., Assistant Comptroller of the University, and Assistant Secretary of the Regents.
-

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WILLIAM JONATHAN NORRIS, M.D., Physician for Men.
M. BURNEY PORTER, Appointment Secretary and Supervisor of Teacher Training.

ANNOUNCEMENT OF COURSES

The attention of students is called to the following explanations with regard to the list of courses.

1. Courses are classified as follows:

Lower Division Courses.

Elementary courses which make up the first and second years of the University curriculum; they are numbered from 1 to 99, inclusive.

Upper Division Courses.

Advanced courses which require some preparation in the lower division, or elementary courses in a subject of such difficulty as to require the maturity of upper division students; they are numbered from 100 to 199, inclusive.

2. 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.

3. 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.

4. The period during which a course is given is shown as follows: I, first half-year; II, second half-year; Yr., throughout the year.

LETTERS AND SCIENCE LIST OF COURSES

At least 112 units offered for the degree of A.B. 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.

Announcement of Courses

The following list refers to the courses as given in the Announcement for the year 1930-31.

Art. 1A-1B, 2A-2B, 4A-4B, 22N, 32A-32B, 103, 131A-131B, 134A-134B, 154, 161A-161B.

Biological Sciences. All undergraduate courses except Agriculture 1 and 10.

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, 123, 124, 130, 142, 170.

English.

English. All undergraduate courses except 161.

Public Speaking. All undergraduate courses except 10c-10d, 15, and 160c-160d.

French. All undergraduate courses except 190.

Geography. All undergraduate courses except 169.

Geology. All undergraduate courses.

German. All undergraduate courses.

History. All undergraduate courses except 11 and 190.

Home Economics. 1A-1B, 11A-11B, 110, 118A-118B, 120, 159.

Mathematics.

Mathematics. All undergraduate courses except 19 and 74.

Astronomy. All undergraduate courses.

Civil Engineering. All undergraduate courses.

Mechanic Arts. Mechanical Engineering D, 1, 2, 6, 7.

Military Science and Tactics. All undergraduate courses.

Music. 1A-1B, 3A-3B, 4A-4B, 9ABCD, 10ABCD, 55A-55B, 101A-101B, 105A-105B, 111A-111B, 150A-150B.

Philosophy. All undergraduate courses.

Physical Education for Men. 1 and 3.

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

Physics. All undergraduate courses.

Political Science. All undergraduate courses.

Psychology. All undergraduate courses except 119.

Spanish. All undergraduate courses except 190.

ART*

- NELLIE HUNTINGTON GERE, Associate Professor of Fine Arts.
 LOUISE P. SOOY, Associate Professor of Fine Arts (Chairman).
 HELEN CLARK CHANDLER, Assistant Professor of Fine Arts.
 BESSIE E. HAZEN, Ed.B., Assistant Professor of Fine Arts.
 ANNITA DELANO, Associate in Fine Arts.
 HELEN M. HOWELL, Associate in Fine Arts and Supervisor of Art Training.
 CLARA BARTRAM HUMPHREYS, Associate in Fine Arts.
 HELEN J. LEDGERWOOD, Ed.B., Associate in Fine Arts.
 ANNIE C. B. MCPHAIL, Ed.B., Associate in Fine Arts.
 BARBARA JOHNSON MORGAN, Associate in Fine Arts.
 OLIVE NEWCOMB, Associate in Fine Arts.
 BERYL KIRK SMITH, Associate in Fine Arts.
 LOUISE GUTHRIE THOMPSON, Ed.B., Associate in Fine Arts.
 VIRGINIA VAN NORDEN, Ed.B., Associate in Fine Arts.
 WINONA WENZLICK, Ed.B., Associate in Fine Arts.
 BELLE H. WHITICE, Associate in Fine Arts.
- NATALIE WHITE, M.A., Supervisor of Training, Art.
 ADRIAN D. KELLER, B.S. in E.E., Associate in Mechanic Arts.

The Teachers College

Preparation for the Major.—Art 1A, 1B, 2A, 2B, 4A, 4B, 8A, 8B, 18, 21, 32A.

The Major, leading to the Secondary Special Teaching Credential in Art.—Art 32B, 131A, 131B, 161A, 161B, 168, and 23 units of elective courses in Art approved by the department.

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

The Minor in Art.—

1. (Kindergartén) 1A, 2B, 4B, 8B, 21, 22N, 30K or 30E, and 6 units of elective courses as approved by the Art department.
2. (Home Economics) 1A, 13, 16B, 21, 22N, 103, 156A, 158, and 6 units of elective courses as approved by the Art department.

*The College of Letters and Science**

Art 1A, 1B, 2A, 2B, 4A, 4B, 22N, 32A, 32B, 103, 131A, 131B, 134A, 134B, 154, 161A, 161B are included in the Letters and Science List of Courses.

Laboratory Fees.—The fee required for courses 9, 29A, 29B, 134A, 158, is 50 cents; for courses 8A, 8B, 18, 119, 198, is \$1; for courses 19A, 19B, 30K, 30E, 39A, 39B, is \$2; for course 164 is \$3; for course 134B is \$4.50.

* A major in art is not offered in the College of Letters and Science in the University of California at Los Angeles. Students wishing to satisfy the requirements for a major in art are referred to the Announcement of Courses in the Departments at Berkeley.

Courses 1A and 2A are prerequisite to all other courses in the department except 30 and certain courses which may be taken concurrently with 1A, 2A.

Students who apply for advanced standing or for exemption from required courses in fine arts on the basis of previous art study completed at other institutions, must submit work and brief outlines of course to the Art Department for evaluation.

- ✓ 1A. Principles of Esthetics. (1) Either half-year.
 Tu, 8 and 1 hour quiz. Associate Professor GERE
- ✓ 1B. History of Art. (1) II. Associate Professor GERE
 Aboriginal American art. Egypt, Assyria, Babylon, Ancient Persia, Greece, and Rome. Early Christian and Byzantine, Romanesque, and Gothic art. Renaissance architecture and crafts. Architecture of today.
- ✓ 21. Costume Appreciation and House Furnishing. (2) Either half-year. Associate Professor SOOY and the STAFF
 Discussion and demonstration to develop appreciation of modern costume and house furnishings.
- ✓ 131A-131B. Painting and Sculpture. (1-1) Yr. Associate Professor GERE
 A. Italian painting and sculpture.
 B. Spanish, Flemish, Dutch, German, French, British, and American painting. Recent sculpture and painting.
- ✓ 161A. European Art Centers. (1) I. Associate Professor GERE
- ✓ 161B. Oriental Art. (1) II. Associate Professor GERE
 Mohammedan, East Indian, Chinese, Korean, and Japanese art. Comparison of oriental and occidental art.

Art Education

- ✓ 30. Fine and Industrial Art Education. (2) Either half-year.
 Mrs. HUMPHREYS, Miss WHITE, Miss NEWCOMB, Mr. KELLER
 Prerequisite: Art 2A. Not open to freshman students.
 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.
 Section E—Elementary.
 Section K—Kindergarten-Primary.
- ✓ 160A-160B. Principles of Art Education. (2-2) Beginning either half year. Miss HOWELL
 M F, 1 (for those beginning in September); M F, 12 (for those beginning in February).
 A. A study of objectives, child growth and development and principles of education as related to art education.
 B. A study of method and the curriculum in art education.
- ✓ 180. Organization and Administration of Art Education. (2) II.
 Prerequisite: senior standing. Associate Professor SOOY

Costume

- ✓ 13. Costume Appreciation and Design. (2) II. Miss VAN NORDEN
For home economics students. Appreciation of beauty of costume through study of line, dark and light, color, and texture with practical application to individuals. Original designing of costumes.
- ✓ 103. History of Costume. (1) II. Associate Professor SOOY
Lantern lectures covering the development of costumes from Egyptian, Assyrian, Greek, and Roman periods, through Medieval European, 16th, 17th, 18th, and 19th century dress in England, France, and America.
- ✓ 133. Costume Appreciation. (1) II. Associate Professor SOOY, —
Discussion and demonstration to develop appreciation of costume as a means of art expression. Costume is considered from the standpoint of abstract design, becomingness, suitability, and expressiveness.
To be discontinued after June, 1931.
- ✓ 183A-183B. Costume Design. (2-2) Yr. Associate Professor SOOY and the STAFF
Prerequisite: 32A, 134A.
A. For the drama. In addition to the general beauty of design, the special object of the course is the use of costume as a means of psychological expression.
B. Modern costume design. Principles of abstract design applied to dress, subject to technical limitation of material, occasion, changing fashion, etc.

Crafts

- ✓ 8A-8B. Stage Craft. (1-1) I. Miss LEDGERWOOD
A. Working drawings and model sets to scale from given designs. Study of the uses of paint and other materials necessary in the building and painting of stage sets.
B. Making costumes for plays, including practice in many decorative processes applied to costume.
- ✓ 9. Elementary Bookbinding. (2) Either half-year. Miss WHITICE
The application of principles governing the handling of binding materials and book construction through the making of boxes, pads and portfolios, and "stabbed" and "cased" books.
- ✓ 18. Elementary Construction. (2) II. Miss WHITICE, Miss NEWCOMB
Fundamental craft experiences, in three groups: clay; cardboard construction with paper, cloth, and leather; processes in reed, raffia, wood, etc.
- ✓ 19A-19B. Pottery. (2-2) Yr. Miss NEWCOMB
Prerequisite: 2B.
Hand building and glazing—use of potter's wheel, making of molds and casting.

- ✓ 29A-29B. Bookbinding. (2-2) Yr. Miss WHITICE
Prerequisite: 9.
- A. Technical bookbinding. Study of the historical development of the craft for background. The binding or re-binding of several books in suitable materials, using various types of sewing and forwarding.
- B. Advanced bookbinding. This course includes the type of work known as "extra" binding and the "finishing" of books. Books bound in Art 29A may be "finished" in 29B.
- ✓ 39A-39B. Weaving. (2-2) Yr. Miss WHITICE
A study of the Colonial type of weaving on four harness looms; also tapestry weaving and Egyptian card weaving.
- ✓ *49. Basketry. (2) I. Miss WHITICE
The use of basketry materials in braided, knotted, and woven work; also the designing and making of sewed and woven baskets.
- ✓ 69A-69B. Leather. (2-2) Yr. Miss WHITICE
- A. The designing and construction of card-cases, purses, bill-folds, magazine and book covers, and similar articles of simple construction, in hand-tooled, hand-dyed calf skin.
- B. Leather craft. The designing and making of bags, brief cases, vanity-cases and other articles, requiring more difficult types of construction than the work done in Art 69A. Morocco, seal, and other leathers used.
- ✓ 79. Metal. Elementary course. (2) I. Miss WHITICE
The design and construction of simple articles, using the processes of raising, riveting, soldering, saw-piercing, etching, repousse, stone-setting, and chain-making.
- ✓ 119. Advanced Pottery. (2) I. Miss NEWCOMB
Study of glazes—stacking kiln and firing.
- ✓ 158. Textile Decoration and Pictorial Block Printing. (2) II. Miss LEGERWOOD, Mrs. MORGAN
- ✓ 168. Stage Craft. (1) I. Associate Professor SOOY and the STAFF
Principles of art applied to the stage. Technical knowledge necessary to produce pantomimes, pageants, and plays.
- ✓ 198. Clay Modeling. (2) Either half-year. Miss NEWCOMB

Design

- ✓ 2A-2B. Art Structure. (3-2) Yr. Mrs. THOMPSON, Miss WENZLICK
- A. Fundamental course upon which all other courses are based. Principles of design. Development of appreciation of harmony produced through the organization of the elements of line, mass, and color.
- B. Composition of natural forms.

* Not to be given, 1930-31.

- 12A. Lettering. (1) I. Mrs. SMITH and the STAFF
To be discontinued after June, 1931.
- 12B. Lettering. (2) II. Mrs. SMITH and the STAFF
Quick and accurate writing for commercial uses.
- 22N. Art Structure. (2) Either half-year. Mrs. THOMPSON and the STAFF
Fundamental course in design and art appreciation given to students in Letters and Science, Home Economics, General Elementary, and Kindergarten-Primary.
Not open to students who have had course 2A.
- ✓ 32A-32B. Art Structure. (2-2) Yr. Miss DELANO
A. Imaginative design. Originality and power in designing developed through experience with imaginative motifs and fundamental design structure.
B. Industrial design. Design for specific crafts, including pottery, metal, leather, and weaving, etc.
- ✓ 152A-152B. Art Structure. (2-2) Yr. Assistant Professor CHANDLER, Miss DELANO
A. Advanced composition.
B. Advanced industrial design. Design for ceramics, wrought iron, jewelry, etc.

Drawing and Painting

- ✓ 4A-4B. Freehand Drawing. (2-3) Yr. Assistant Professor HAZEN, Miss MCPHAIL
A. Principles of perspective and the development of feeling for fine quality in line and mass drawing of still-life, buildings, interiors, and furniture.
B. Representative painting and the study of the technique of water color.
- ✓ 134A-134B. Figure Drawing and Painting. (2-2) Yr. Assistant Professor CHANDLER, Mrs. SMITH, Mrs. THOMPSON
A. Study of the structure of three dimensional mass leading to the imaginative interpretation of the human form.
B. Life class.
- ✓ 154. Advanced Drawing and Painting. (2) II. Assistant Professor CHANDLER
A study of structure and various types of rendering in black and white. Architectural forms, figures, landscapes, etc.
- ✓ 164. Life Class. (2) II. Mrs. SMITH
Advanced drawing and painting from the figure, including the study of anatomy.

House Design and Decoration

- ✓ 16A. House Furnishing. (1) I. Miss VAN NORDEN and the STAFF
To be discontinued after June, 1931.
- ✓ 16B. History of Furniture. (1) II. Miss VAN NORDEN and the STAFF
- ✓ 156A-156B. Interior Decoration. (2-2) Yr.
Associate Professor SOOY, Miss VAN NORDEN
- A. A basic study of the arrangement of furniture in relation to wall and floor space, with stress on the color harmony of walls, curtains, floor coverings, and furniture.
- B. Original designs of room arrangements. A development of definite moods in interior decoration through a use of mass, color, and detail. Actual arrangements are made, using textiles and furniture against backgrounds.
- ✓ 186A-186B. Interior Decoration. (2-2) Yr. Associate Professor SOOY
- A. Original designs for complete rooms, elevations and perspectives in color. A stress on the technical side of interior decoration.
- B. Furniture Design. Oriental designs based on period, peasant and modern research. A technical course including the making of working drawings.

Illustration

- ✓ 135A-135B. Book Illustration. (2-2) Yr.
Assistant Professor CHANDLEE, Mrs. MORGAN
Illustrations of fables, legends, and imaginative tales.
- ✓ 165A-165B. Commercial Illustration. (2-2) Yr. Miss WENZLICK
Fundamentally a course in composition, and the technical requirements of advertising, and the psychology of selling.
- ✓ 175. Advanced Illustration including Wall Decorations. (2) II.
Assistant Professor CHANDLER

Landscape

- ✓ 137A. Sketching. (1) I. Assistant Professor HAZEN
To be discontinued after June, 1931.
- ✓ 137B. Sketching. (2) II. Assistant Professor HAZEN
Landscape composition. Charcoal and wash drawings.

BIOLOGICAL SCIENCES

LOYE HOLMES MILLER, Ph.D., Professor of Biology (Chairman).

¹O. L. SPONSLER, Ph.D., Professor of Botany.

BENNET M. ALLEN, Ph.D., Professor of Zoology.

ALBERT W. BELLAMY, Ph.D., Associate Professor of Zoology.

FRANK E. OLDER, B.S., Assistant Professor of Agricultural Teaching.

RAYMOND B. COWLES, Ph.D., Assistant Professor of Biology.

CARL C. EPLING, Ph.D., Assistant Professor of Botany.

ARTHUR W. HAUPT, Ph.D., Assistant Professor of Botany.

ARTHUR M. JOHNSON, Ph.D., Assistant Professor of Botany.

ORDA A. PLUNKETT, Ph.D., Assistant Professor of Botany.

FLORA MURRAY SCOTT, Ph.D., Assistant Professor of Botany.

GORDON H. BALL, Ph.D., Assistant Professor of Zoology.

EDGAR L. LAZIER, Ph.D., Assistant Professor of Zoology.

EMILY M. BARTLETT, Ph.D., Instructor in Biology.

RUTH ANDERSON, M.A., Associate in Biology.

CAROLINE P. CANBY, M.A., Associate in Biology.

BORIS KRICHESKY, A.B., Associate in Biology.

LEIGH M. LARSON, M.A., Associate in Biology.

MARTHA L. HILEND, M.A., Associate in Botany.

W. B. WELCH, A.B., Associate in Botany.

GRETCHEN M. LYON, A.B., Assistant in Biology.

_____, Assistant in Biology.

_____, Assistant in Biology.

²CHARLES JOSEPH CHAMBERLAIN, Ph.D., (Professor of Morphology and Cytology, University of Chicago), Lecturer in Botany.

At the University of California at Los Angeles a student may take a major in botany or in zoology. Those wishing to major in other phases of the work included in this department are referred to the Announcement of Courses in the departments at Berkeley, or to the departmental advisor for personal conference. Students in the Teachers College looking toward the special teaching of nature study will be advised individually.

Letters and Science List.—All undergraduate courses in biology, botany, paleontology, physiology, and zoology are included in the Letters and Science List of Courses. For regulations governing this list, see page 7.

Preparation for the Major in Botany.—Botany 1 and 2, and elementary chemistry.

The Major in Botany.—Of the 24 units of upper division work required, 15 units should consist of botany and the remaining 9 units of other

¹In residence second half-year only, 1930-31.

courses in botany or of related courses in bacteriology, chemistry, geology, geography, paleontology, physiology, and zoology, to be chosen with the approval of the department.

The Minor in Botany in Teachers College.—1, 2, 104A, 104B.

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

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

The Minor in Zoology in Teachers College.—1A, 1B, 112, 113.

Laboratory Fees.—The fee for Physiology 1, Zoology 1A, 1B, 4, 35, 100, 105, 106 107C, 111C, 112, 199A, 199B, is \$3. The student will be held responsible for all apparatus lost or broken.

AGRICULTURE*

1. General Horticulture. (3) II. Assistant Professor OLDER
Lectures, three hours; laboratory, two hours.
A general view of horticulture, with special attention to plant propagation, vegetable gardening, and fruit growing.
- ✓10. Elements of Agriculture. (3) Either half-year. Assistant Professor OLDER
Lectures, three hours; laboratory, two hours.
Designed for students preparing to teach in primary and elementary grades.
A study of the fundamental principles of agriculture and practice in garden, lath house, and laboratory.

BIOLOGY

- ✓1. Fundamentals of Biology. (3) Either half-year. Associate Professor BELLAMY, Assistant Professors COWLES, HAUPT, Dr. BARTLETT
Lectures, M W, 9; Tu Th, 9; quiz, one hour; demonstration, one hour; one required field trip.
Not open to students who have credit in Botany 1 or Zoology 1A.
Important principles of biology illustrated by studies of structure and activities of living organisms, both plants and animals.
- ✓12. General Biology. (3) II. M W F, 10. Professor MILLER and Assistant Professor COWLES
Prerequisite: Biology 1 or equivalent.
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.

* Students looking toward specialized work in agriculture are referred to the Announcement of Courses in the Departments at Berkeley.

BOTANY

LOWER DIVISION COURSES

1. General Botany. (4) Either half-year.
 Professor SPONSLER, Assistant Professors SCOTT, PLUNKETT
 Lectures, M W, 12; Tu Th, 1; six hours laboratory.
 An introductory course dealing with the structure, functions and life relations of seed plants.
2. General Botany. (4) II.
 Professor SPONSLER, Assistant Professors SCOTT, PLUNKETT
 Lectures, M W, 12; Tu Th, 1; 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. Dr. BARTLETT
 Lecture, one hour; laboratory, six hours.
 Prerequisite: Botany 1 and 2.
 Preparation of plant material for microscopic study involving methods in fixing, embedding, sectioning, and staining.
This course duplicates Botany 110 given prior to September, 1930.

UPPER DIVISION COURSES

General Prerequisite: Botany 1 and 2 is prerequisite to all upper division courses.

101. Plant Physiology. (3) II. Professor SPONSLER
 Lecture, one hour; laboratory, six hours.
 Prerequisite: Botany 109, and chemistry.
 Experimental work designed to demonstrate various activities of the plant.
This course duplicates Botany 7 given prior to September, 1930.
- 104A-104B. Taxonomy of the Seed Plants. (3-3) Yr. Assistant Professor 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. (4) I. Assistant Professor 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.

Biological Sciences

- 105B. Morphology of Pteridophytes and Spermatophytes. (4) II. Assistant Professor 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.
- 109. Plant Histology. (3) I. Assistant Professor SCOTT
Lecture, one hour; laboratory, six hours.
Prerequisite: Botany 1, 2.
The microscopic structure of the higher plants with particular reference to the development and differentiation of vegetative tissues.
This course duplicates Botany 6 given prior to September, 1930.
- 111. Plant Cytology. (3) II. Assistant Professor SCOTT
Lecture, one hour; laboratory, six hours.
Prerequisite: Botany 105A or 105B. Botany 105C is recommended.
Anatomy and physiology of the cell.
- 114. Advanced Plant Physiology. (3) II. Professor SPONSLER
Conferences and laboratory.
Prerequisite: Botany 101 and 109, chemistry, and physics.
Experimental work on certain functions of the plant.
- 120. Phytopathology. (3) II. Assistant Professor PLUNKETT
Lecture, one hour; laboratory, six hours.
A study of bacterial and fungous diseases of plants.
- 152. Experimental Plant Ecology. (3) II. Assistant Professor JOHNSON
Lecture, one hour; laboratory, six hours.
Prerequisites: Botany 104A-104B.
A laboratory study of structures and functions of plants as influenced by controlled environmental factors.
- 199A-199B. Problems in Botany. (2-2) Yr. Professor SPONSLER and STAFF
Prerequisite: senior standing.

PALEONTOLOGY†

- 1. General Paleontology. (2) I. Tu Th, 8, 10. Professor MILLER
Lectures, quizzes, and three required Saturdays in the field.
A discussion of the general principles of paleontology, the influences that surround the ancient life of the earth, and some of the ways in which animals respond to such influences.
- 104. Vertebrate Paleontology. (3) I. Professor MILLER
Lecture, one hour; laboratory, six hours.
Prerequisite: Zoology 1A-1B.
A study of the fossil land vertebrates of the western hemisphere with reference to the present faunas and distribution.

† Courses in Invertebrate Paleontology are offered by the Department of Geology (p. 51).

PHYSIOLOGY†

1. General Human Physiology. (3) II. Dr. ANDERSON
 Lectures, Tu Th, 11, laboratory, three hours.
 Prerequisite: Chemistry 2A-2B or high school chemistry.
 Primarily for students in Home Economics and Physical Education.
2. (Pre-Nursing Cur.) (2) Dr. Anderson
 ZOOLOGY

LOWER DIVISION COURSES

- 1A. General Zoology. (5) I. Assistant Professor BALL
 Lectures, M W, 8; quiz, one hour; laboratory, six hours; one
 required field trip.
 An introduction to the facts and principles of animal biology.
- 1B. General Zoology. (5) II. Assistant Professor LAZIER
 Lectures, M W, 8; quiz, one hour; laboratory, six hours.
 An introduction to vertebrate morphology.
4. Microscopical Technique. (2) Either half-year. Dr. BARTLETT
 Laboratory, six hours; assigned readings.
 Prerequisite: Zoology 1A and high school chemistry.
 The preparation of tissues for microscopical examination.
35. General Human Anatomy. (3) I. Mrs. ANDERSON
 Lecture, Tu Th, 11; laboratory, three hours.
 Prerequisite: sophomore standing; Zoology 1A or Biology 1.

UPPER DIVISION COURSES

- 100A. Genetics. (4) I. Associate Professor BELLAMY
 Lectures, two hours; seminar, one hour; laboratory, six hours.
 Prerequisite: Zoology 1B or Botany 2 or equivalent, and junior
 standing.
 The student is given an opportunity to become familiar with the
 principles of heredity and research methods in genetics.
- 100B. Advanced Genetics. (2) II. Associate Professor BELLAMY
 Lectures, two hours; seminar, one hour.
 Prerequisite: course 100A.
 A continuation of 100A with special reference to experimental
 evolution. May be taken without 100C.
- 100C. Advanced Genetics Laboratory. (2) II. Associate Professor BELLAMY
 Laboratory, six hours. May not be taken without 100B.
101. Physiological Biology. (2) I. Associate Professor BELLAMY
 Prerequisite: Chemistry 8 and 9, or the equivalent.
 Lectures, readings, demonstrations, and laboratory study of cer-
 tain physico-chemical processes and the principles of living matter.

† A major in physiology in the College of Letters and Science is not offered in the University of California at Los Angeles. Students wishing to satisfy the requirements for a major in physiology are referred to the Announcement of Courses in the Departments at Berkeley.

103. **Experimental Zoology.** (2) I. Professor ALLEN
Prerequisite: Zoology 1A-1B.
Lectures, reports on articles in scientific journals and special problems.
105. **Advanced Vertebrate Embryology.** (3) I. Professor ALLEN
Lectures, one hour; laboratory, six hours.
Prerequisite: Zoology 1A and either 1B or 35.
A study of mammalian embryology.
106. **Comparative Anatomy of the Higher Vertebrates.** (4) I. Assistant Professor LAZIER
Lectures, two hours; laboratory, six hours.
Prerequisite: Zoology 1A-1B and junior standing.
A study of the structural relationships of the higher vertebrates.
Dissection of the elasmobranch, amphibian, reptile, and mammal.
107. **Cytology.** (2) II. Professor ALLEN
Prerequisite: Zoology 1A.
Lectures and recitations.
The structure and activities of the cell, especially in development, in sex determination, and in heredity.
- 107c. **Cytology Laboratory.** (2) II. Professor ALLEN
May be taken only concurrently with course 107, or subsequently thereto.
111. **Parasitology.** (2) II. Assistant Professor BALL
Prerequisite: Zoology 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. Assistant Professor BALL
Prerequisite: Zoology 111, or may be taken concurrently with course 111.
- 111d. **Entomological Parasitology.** (2) II. Assistant Professor COWLES
Prerequisite: Zoology 1A.
112. **Advanced Invertebrate Zoology.** (4) II. Assistant Professor LAZIER
Lectures, two hours; laboratory and field, six hours.
Prerequisite: Zoology 1A. Zoology 1B is recommended.
Morphology, habits, habitats, and life histories of both marine and fresh water invertebrates, with especial reference to local faunas.
113. **Zoology of the Higher Vertebrates.** (4) II. Professor MILLER
Lectures, two hours; laboratory and field, six hours.
Prerequisite: Zoology 1A-1B.
Emphasis will be placed on the habits, distribution, and ecology of the reptile, bird, and mammal faunas of California.
- 199A-199B. **Problems in Zoology.** (2-2) Yr. Professor MILLER and the STAFF
Prerequisite: Zoology 1A-1B and junior standing, with such special preparation as the problem may demand.

CHEMISTRY

- WILLIAM CONGER MORGAN, Ph.D., Professor of Chemistry (Chairman).
 WILLIAM R. CROWELL, Ph.D., Associate Professor of Analytical Chemistry.
 MAX S. DUNN, Ph.D., Associate Professor of Chemistry.
 G. ROSS ROBERTSON, Ph.D., Associate Professor of Organic Chemistry.
 JAMES B. RAMSEY, Ph.D., Assistant Professor of Physical Chemistry.
 HOSMER W. STONE, Ph.D., Assistant Professor of Inorganic Chemistry.
 ————, Instructor in Chemistry.
 RICHARD D. POMEROY, M.S., Associate in Chemistry.
 HERBERT F. LAUNER, A.B., Associate in Chemistry.

Letters and Science List.—All undergraduate courses except 10 are included in the Letters and Science List of Courses. For regulations governing this list, see page 7.

Preparation for the Major.—Required: Chemistry 1A-1B (10), which must be passed with a grade of C or better before any further work in chemistry is taken; Physics 1A-1B (6); trigonometry, Mathematics 8, 3A-3B (9), and a reading knowledge of German. Recommended: a second course in chemistry, Physics 1C-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), and two courses chosen from 101 (3), 111 (4) and 120 (3). 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.

The Minor in Teachers College.—1A, 1B, or 2A, 2B; 6 units chosen from 5, 8A, 9, 10.

Pre-Chemistry.—The University 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 chairman of the department before making out their programs.

Laboratory Fees.—These fees cover the cost of materials and equipment used by the average careful student. Any excess over this amount will be charged to the individual responsible. The fees per semester are as follows: Courses 2A-2B, 10, 107A-107B, 199, \$10.00; 1A-1B, 5, 6A-6B, 120, \$14.00; 111, \$22.00; 9, 101, \$25.00.

LOWER DIVISION COURSES

Students who have not had high school chemistry may take Chemistry 2A in preparation for Chemistry 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 either half year.

Professor 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.

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

2A-2B. General Chemistry. (4-4) Beginning either half-year.

Associate Professor DUNN, Assistant Professor STONE

Lectures, M W F, 11 (for those beginning in September); M W F, 10 (for those beginning in February); laboratory, three hours.

Lectures or recitations, three hours.

No prerequisite; high school chemistry is recommended.

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) Either half-year.

Associate Professor CROWELL

Lecture, Th, 11; laboratory, six hours.

Prerequisite: Chemistry 1A-1B.

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. Associate Professor CROWELL

Lecture, Tu, 10; laboratory, six hours.

Prerequisite: Chemistry 1A-1B.

Required of economic geologists, chemistry majors, and College of Chemistry students. 6A is required of metallurgy students.

8A-8B. Organic Lectures. (3-3) Yr. M W F, 9.

Professor MORGAN, Associate Professor ROBERTSON

Prerequisite: Chemistry 1A-1B or 2A-2B.

8A is given either half-year; 8B the second half-year only.

The first half of this course is elementary and is required of pre-medical and pre-dental students, sanitary and municipal engineers, petroleum engineers, chemistry majors, and College of Chemistry students. The second half is advanced and is recommended for pre-medical students and chemistry majors.

9. Elementary Organic Laboratory. (3) Either half-year.

Associate Professor ROBERTSON

Lecture, Tu, 8; quiz, Th, 8; laboratory, six hours.

Prerequisite: Chemistry 8A, or both courses may be taken at the same time.

Required of petroleum engineers, pre-medical and pre-dental students, chemistry majors, and College of Chemistry students.

*Chem 1B after
2A B quiz
2A A 1
with*

- ✓ 10. Organic and Food Chemistry. (4) I. Associate Professor ROBERTSON
Lectures, M W F, 8; laboratory, three hours.
Prerequisite: Chemistry 1A-1B or 2A-2B.
Required of home economics majors.

UPPER DIVISION COURSES

- ✓ 101. Organic Synthesis. (3) II. Associate Professor ROBERTSON
Laboratory, nine hours.
Prerequisite: Chemistry 8A and 9 and the ability to read scientific German.
Advanced laboratory technique and introduction to research methods.
- ✓ 107A-107B. Biological Chemistry. (3-3) Yr. Associate Professor DUNN
Lectures, Tu Th, 8; laboratory, 3 hours.
Prerequisite: Chemistry 8A and 9.
- ✓ 110. Physical Chemistry Lectures. (3) I. Assistant Professor RAMSEY
M W F, 10.
Prerequisite: Chemistry 5 or 6A; Physics 1A-1B or 2A-2B.
Required of chemistry majors, College of Chemistry students and for all later work in physical chemistry.
Lectures and problems.
- ✓ 110B. Advanced Physical Chemistry Lectures. (3) II.
M W F, 10. Assistant Professor RAMSEY
Prerequisite: Chemistry 110.
Lectures and problems. A continuation of course 110.
- ✓ 111. Physical Chemistry Laboratory. (4) II. Assistant Professor RAMSEY
Lecture, one hour; laboratory, nine hours.
Prerequisite: Chemistry 110 and calculus.
Required of chemistry majors.
Physico-chemical problems and measurements.
- ✓ 120. Advanced Inorganic Chemistry. (3) I. Assistant Professor STONE
Lecture, one hour; laboratory, six hours.
Prerequisite: Chemistry 6A-6B and 110.
Required of chemistry majors.
Preparation and experimental study of substances, designed primarily to illustrate the factors which influence equilibrium and the speed of chemical reactions. Correlation of material by means of the periodic system.
- ✓ 199. Problems in Chemistry. (3) Either half-year. The STAFF
Prerequisite: junior standing with such special preparation as the problem may demand.

CLASSICAL LANGUAGES

ARTHUR PATCH MCKINLAY, Ph.D., Professor of Latin (Chairman).
 FREDERICK MASON CAREY, Ph.D., Associate Professor of Greek and Latin.
 HERBERT BENNO HOFFLETT, Ph.D., Assistant Professor of Latin and Greek.
 DOROTHEA CLINTON WOODWORTH, 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 7.

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 Latin C and D; Latin 1 and 5; Latin 3A-3B; Ancient Civilizations 112A-112B. Recommended: Greek, German, French.

B. *Greek.*—Required: Either 1A-1B and 101 or 102; or 1AB-2AB; or matriculation subject 5a and 101 or 102; and Ancient Civilizations 112A-112B. Recommended: Latin, German, French.

The Major.

A. *Latin.*—All courses offered in Latin except 199A-199B, plus 6 units of upper division courses in Greek, English, French, German, Spanish, philosophy, ancient or medieval history, to be chosen with the approval of the department.

B. *Greek.*—All courses offered in Greek (with the exception of 117A-117B), plus 6 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.

The Minor in Teachers College.—Latin 1, 5, 102, 106.

LATIN

LOWER DIVISION COURSES

- C. Third Year Latin: Ovid. (3) I. Professor MCKINLAY
 M W F, 12.
 Prerequisite: two years of high school Latin. See GA.
- D. Fourth Year Latin: Vergil. (3) II. Professor MCKINLAY
 M W F, 12.
 Prerequisite: Latin C or three years of high school Latin.

CA Beg. lat. and Caesar (5)
 CB Read. in Med. lat. (3)

- GA. Latin Prose Composition. (1) I. Th, 9.
 Assistant Professor WOODWORTH
 Prerequisite: two years of high school Latin.
 Required of students in C.
1. Plautus and Cicero. (3) Either half-year.
 Professor MCKINLAY, Assistant Professor WOODWORTH
 I, M W F, 11; II, M W F, 12.
 Prerequisite: four years of high school Latin.
- 3A-3B. Latin Prose Composition. (1-1) Yr. Th, 1.
 Assistant Professors HOFFLEIT, WOODWORTH
 3A is given either half-year.
 Prerequisite: four years of high school Latin.
5. Horace: Odes and Epodes. (3) Either half-year.
 Professor MCKINLAY, Assistant Professor HOFFLEIT
 I, M W F, 12; II, M W F, 11.
 Prerequisite: Latin 1.

UPPER DIVISION COURSES

Latin 102 and 106 are prerequisite to Latin 117, 120, 140, 191, and 199.

102. Catullus and Livy. (3) I. M W F, 2. Assistant Professor WOODWORTH
 Prerequisite: Latin 5.
- *104A-104B. Latin Composition. (1-1) Yr. Tu, 9.
 Assistant Professor WOODWORTH
 Prerequisite: Latin 3A-3B.
 Ciceronian Prose—104A, Oratory; 104B, Rhetoric.
- *104C-104D. Latin Composition. (1-1) Yr. Tu, 9.
 Assistant Professor WOODWORTH
 Prerequisite: Latin 3A-3B.
 Ciceronian Prose—104C, Philosophy; 104D, Social Science.
106. Tacitus: Annals. (3) II. M W F, 2.
 Prerequisite: Latin 102. Assistant Professor WOODWORTH
117. Lucretius: Selections; Vergil: Eclogues and Georgics. (3) II.
 M W F, 2. Associate Professor CAREY
120. Roman Satire. (3) I. M W F, 10. Assistant Professor HOFFLEIT
140. Ovid: Carmina Amatoria and Metamorphoses. (3) II. M W F, 10.
 Associate Professor CAREY
191. Cicero: Life and Letters. (3) I. M W F, 2 Professor MCKINLAY
- 199A-199B. Problems in Classical Philology. (2-2)
 Professor MCKINLAY and the STAFF

* Courses 104A and 104B are given alternately with 104C and 104D. 104C and 104D will be offered in 1930-31. Two units required of Latin majors.

GREEK**LOWER DIVISION COURSES**

- ✓ 1AB-2AB. Greek for Beginners, Attic Prose. (5-5) Yr.
M Tu W Th F, 9. Assistant Professor HOFFLEIT
- ✓ 1A-1B. Greek for Beginners, Attic Prose and Homer. (3-3) Yr.
M W F, 10. Assistant Professor WOODWORTH

UPPER DIVISION COURSES

Greek 101 and 102 are prerequisite to Greek 103, 104, 105, and 114.

- ✓ 100A-100B. Prose Composition. (1-1) Yr. Th, 10.
Prerequisite: Greek 1A or 1AB. Associate Professor CAREY
- ✓ 101. Homer: Odyssey; Herodotus. (3) I. M W F, 11.
Associate Professor CAREY
Prerequisite: Greek 1AB-2AB or Greek 1A-1B.
- ✓ 102. Plato: Apology and Crito; Lyric Poets. (3) II. M W F, 11.
Prerequisite: Greek 101. Assistant Professor HOFFLEIT
- ✓ *103. Greek Drama: Euripides and Aristophanes. (3) II. M W F, 8.
Associate Professor CAREY
- ✓ *104. Historical Prose: Herodotus and Thucydides. (3) I. M W F, 8.
Associate Professor CAREY
- ✓ *105. Greek Drama: Aeschylus and Sophocles. (3) II. M W F, 8.
Associate Professor CAREY
- ✓ *114. Plato: Republic. (3) I. M W F, 8. Associate Professor CAREY
- ✓ 117A-117B. Greek New Testament. (1-1) Yr. Th, 11.
Prerequisite: Greek 1A or 1AB. Assistant Professor HOFFLEIT

ANCIENT CIVILIZATIONS†

- ✓ 112A. History of Greece to the Fall of Corinth. (3) I. M W F, 9.
Associate Professor CAREY
- ✓ 112B. History of Rome to the Death of Justinian. (3) II. M W F, 9.
Professor MCKINLAY

* Greek 103 and Greek 114 will ordinarily be given in alternation with Greek 104 and Greek 105 respectively. Greek 103 and Greek 114 will be offered in 1980-81.

† Knowledge of Greek or Latin not required. Required of majors in Classical Languages. Open in the lower division to properly prepared majors in philosophy, history, political science, English, and foreign language.

ECONOMICS

GORDON S. WATKINS, Ph.D., Professor of Economics.

EARL JOYCE MILLER, Ph.D., Associate Professor of Economics and Dean of Men.

IRA N. FRISBEE, M.B.A., C.P.A., Associate Professor of Accounting.

HOWARD S. NOBLE, M.B.A., C.P.A., Associate Professor of Accounting (Chairman).

FLOYD F. BURTCHETT, Ph.D., Assistant Professor of Economics.

DUDLEY F. PEGRUM, Ph.D., Assistant Professor of Economics.

MARVEL M. STOCKWELL, Ph.D., Assistant Professor of Economics.

EVA M. ALLEN, Associate in Commercial Practice.

ESTELLA B. PLOUGH, Associate in Commercial Practice.

_____, Associate in Economics.

LEWIS A. MAVERICK, Ed.D., Lecturer in Economics.

RALPH M. RUTLEDGE, A.M., Lecturer in Economics.

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 7.

Preparation for the Major.—Required: Economics 1A-1B, and at least one of the following: Political Science 3A-3B, History 4A-4B, History 8A-8B, 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, or geography, the program to be approved by a departmental adviser.

The Major in Commerce in the Teachers College

Preparation for the Major.—Economics 1A, 1B, 14A, 14B; Commerce 16, 17, 18A, 18B; Political Science 18A, 18B; Geography 5; History 76.

The Major, leading to the Secondary Special Credential in Commerce.—24 units of advanced work approved by the department, including Economics 123, 135, 173, 195.

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

The Minor in Economics.—Economics 1A, 1B, 6 units of elective credit in upper division economics.

Pre-Commerce Curriculum.—The University 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.

Fees.—Commerce A, \$6; Commerce B, \$5; Commerce 16, \$2.50.

LOWER DIVISION COURSES

- 1A-1B. Principles of Economics. (3-3) Beginning either half-year.
Associate Professor MILLER and the STAFF
Lectures, Tu Th, 9 and 1 hour quiz; Tu Th, 11 and 1 hour quiz.
- 14A-14B. Principles of Accounting. (3-3) Beginning either half-year.
Associate Professors NOBLE, FRISBEE
MW, 8, and 2 hours laboratory; Tu Th, 11, and 2 hours laboratory.
- 15A-15B. Accounting Laboratory. (1-1) Beginning either half-year.
Associate Professor NOBLE
May be taken only concurrently with or subsequently to course
14A-14B.

UPPER DIVISION COURSES

Economics 1A-1B is a prerequisite to all upper division courses in economics.

100. Advanced Economic Theory. (2) Either half-year.
Tu Th, 9, 10. Dr. MAVERICK
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.
Recommended as a course for seniors.
101. History of Economic Doctrine. (2) Either half-year.
Professor WATKINS
A general study of the development of economic thought. The forerunners and founders of the science. The contributions of the classical school. The emergence of critical schools. Recent changes in economic theory.
106. Economic Reform. (3) II. Professor WATKINS
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.
123. Principles of Marketing. (3) Either half-year. —
A study is made of the functions of middlemen, the marketing of farm products, minerals, forest products, manufactures, wholesaling and retailing. Salesmanship, advertising, brands, trade marks, trade names, cooperative marketing, credits and collections, installment selling, business cycles, and market analysis are also considered.
131. Public Finance. (2) Either half-year.
Assistant Professor STOCKWELL
The principles underlying the proper raising and spending of public money. Property, income, corporation, inheritance taxes and other sources of revenue. Budgeting of public expenditures. Economic, social and financial significance of our fiscal structure and policies.

*133. Corporation Finance. (3) Either half-year.

Prerequisite: course 14A-14B. Assistant Professor BURCHETT

A study of the financial structures and financial problems of large 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) Either half-year. Assistant Professor BURCHETT

Prerequisite: 14A-14B.

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) Either half-year.

Assistant Professor BURCHETT

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.

140. Elementary Statistics. (4) Either half-year.

Associate Professor FRISBEE, Dr. 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 cycle.

Recommended in the first half of the junior year.

150. Labor Economics. (3) I.

Professor WATKINS

M W F, 9, 10.

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.

171. Public Utilities. (3) Either half-year. Assistant Professor PEGRUM

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, 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) Either half-year.

Assistant Professor PEGRUM

A general historical and contemporaneous survey of the development of American railroads. Extent and significance of federal and state regulation of railroads. Rates and rate making; classification of freight; valuation for rate-making purposes. Present status of the railroad problem.

195. Principles of Foreign Trade. (3) Either half-year.

A general introduction to foreign trade methods and practices with analysis of the principles of international commerce with particular reference to the trade of the United States. Considerable attention is given to trade in products of special interest to California.

199. International Economic Problems. (2) II.

Associate Professor MILLER and STAFF

Prerequisites: Economics 100, Economics 135, and 12 units of B average in upper division social sciences.

A critical survey of contemporary international problems. An analysis of foreign trade, world debts, banking relations, and cooperative control of labor conditions, as these affect the movement for constructive international progress. Special emphasis upon original investigation of specific problems.

Business Administration

- 121A-121B. Business Organization and Administration. (3-3) Yr.

M W F, 8, 10.

Associate Professor NOBLE

Prerequisite: course 14A-14B.

A study of different types of ownership with emphasis on the corporate organization; internal organization, including departmentalization; correlation of functions and activities of departments of marketing, production, personnel, finance, and accounting.

151. Personnel Management. (2) II.

Professor WATKINS

new
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.

Associate Professors NOBLE, FRISBEE

Prerequisite: course 14A-14B.

First semester, continuation of corporation and of partnership accounting; insolvency and receivership accounts; specialized financial statements; advanced theory problems. Second semester, estate accounting; consolidated balance sheets; actuarial accounting; advanced theory problems.

* Not to be given, 1930-31.

- ✓ 161. Cost Accounting. (3) II. Associate Professor NOBLE
Prerequisite: course 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) I. Associate Professor FRISBEE
Prerequisite: course 14A-14B, 160A-160B.
Accounting investigations, balance sheet audits and detailed audits performed by public accountants. Valuations, audit procedure, working papers and audit reports.

COMMERCE

TEACHERS' COURSES

- ✓ A. Typing. (No credit.) Either half-year. Tu Th, 10 Mrs. ALLEN
- ✓ B. Shorthand. (No credit.) I. M W F, 10. Mrs. ALLEN
- ✓ 16. Typing. (2) Either half-year. Tu Th, 2. Mrs. ALLEN
Prerequisite: course A or its equivalent.
- ✓ 17. Shorthand. (3) Either half-year. M W F, 9. Mrs. ALLEN
Prerequisite: course B or its equivalent.
- ✓ 18A-18B. Penmanship. (2-2) Beginning either half-year. Tu Th, 9, 10. Mrs. PLOUGH
- ✓ 19. Business Mathematics. (2) II. Mrs. ALLEN
- ✓ 197. Methods of Teaching Commercial Subjects. (2) I. Tu Th, 1. Mrs. ALLEN
- ✓ 198. Commercial Education. (2) II. Associate Professor NOBLE and the STAFF

EDUCATION

ERNEST CARROLL MOORE, Ph.D., LL.D., Professor of Education, Vice-President of the University, and Director of the University of California at Los Angeles.

MARVIN L. DARSIE, Ph.D., Professor of Education and Dean of the Teachers College (Chairman).

JUNIUS L. MERIAM, Ph.D., Professor of Education.

CHARLES W. WADDELL, Ph.D., Professor of Education and Director of the Training Department.

HARVEY L. EBY, Ph.D., Associate Professor of Education.

KATHERINE L. MCLAUGHLIN, M.A., Associate Professor of Education.

CLARENCE HALL ROBISON, Ph.D., Associate Professor of Education and University Examiner.

ETHEL I. SALISBURY, M.A., Associate Professor of Elementary Education and Supervisor of Training.

WILLIAM A. SMITH, Ph.D., Associate Professor of Education.

J. HAROLD WILLIAMS, Ph.D., Associate Professor of Education.

FREDERICK P. WOELLNER, Ph.D., Associate Professor of Education.

CORINNE A. SEEDS, M.A., Assistant Professor of Elementary Education and Principal of the University Elementary School.

FRANCES GIDDINGS, M.A., Instructor in Kindergarten-Primary Education and Supervisor of Training.

BARBARA GREENWOOD, Associate in Kindergarten-Primary Education and Supervisor of Nursery School Training.

MARGARET MANNING ROBERTS, Ph.B., Associate in Kindergarten-Primary Education.

EMILY TODD BELL, Assistant in Kindergarten-Primary Education.

SIR JOHN ADAMS, B.Sc., M.A., LL.D., F.C.P., Lecturer in Education (Professor Emeritus of Education, University of London).

BENJAMIN W. JOHNSON, Lecturer in Education and Assistant Director of Vocational Education and Supervisor of Classes for the Training of Trade and Industrial Teachers.

Letters and Science List.—Courses 103, 121, 122, 123, 124, 130, 142, 170 are included in the Letters and Science List of Courses. For regulations governing this list, see page 7. A major in education is not offered in the College of Letters and Science.

A. Requirements for General Teaching Credentials.

1. The Kindergarten-Primary Credential.

Recommendation for this credential is based upon the completion of all requirements for the degree of Bachelor of Education with a major in Kindergarten-Primary Education.

2. The General Elementary Credential.

Recommendation for this credential is based upon the completion of all requirements for the degree of Bachelor of Education with a major in Elementary Education.

3. The Junior High School Credential.

Students whose major is General Elementary Education may ordinarily qualify for the Junior High School Credential by completing in addition to the requirements for the major Education 170 and two minors in subjects taught in junior or senior high school.

Until September 15, 1931, students in the College of Letters and Science will be recommended for the junior high school credential on the following conditions:

- a. Completion of all requirements for the Bachelor of Arts degree.
- b. Completion of a major and a minor in fields taught in the high school or junior high school.
- c. Completion of 18 units in Education including Education 100J, 102, 103, 170, Teaching J191A and a professional course in the major field, if such course is offered.

After September 15, 1931, the junior high school credential will be issued only to students majoring in General Elementary Education.

4. The General Secondary Credential.

One year of postgraduate work following the bachelor's degree is required for this credential. No graduate credit is offered at present at the University of California at Los Angeles. Students desiring to qualify for general secondary teaching are advised to register in the College of Letters and Science and complete as a part of their undergraduate training the following:

- a. A major and two minors in fields taught in the high school.
- b. Education 103, 122, 170, Psychology 110. (Psychology 1A, 1B is prerequisite to Psychology 110.)

B. The Major in Education.

1. Leading to the Kindergarten-Primary Credential—

Examination in music: an examination in piano and voice is required of all entrants upon enrollment in this course. Before assignment to practice teaching is made the student must show ability to sing and play music such as "Songs for the Little Child" by Kohleaat and Baker, and music for rhythmic interpretation of the type in "Robinson's School Rhythms."

- a. Preparation for the major: Art 2A, 30K; Biology 1, 12; Psychology 1A, 1B; Physical Education 111K.

b. The major: Education 100K, 101K, 102, 103, 104K, 106, †Teaching K190A, K190B.

c. Majors in Kindergarten-Primary Education may qualify for the General Elementary Credential upon the completion of Geography 1A, 1B; History 39; Mathematics 19; Education 180.*

2. Leading to the General Elementary Credential—

a. Preparation for the major: Art 2A, 30E; Geography 1A, 1B; History 39; Mathematics 19; Music 60; Psychology 1A, 1B; Physical Education 11E.

b. The major: Education 100E, 101E, 102, 103, 104E; †Teaching E190A, E190B.

c. Majors in General Elementary Education may qualify for the Junior High School Credential on completion of Education 170 and two minors in subjects taught in junior or senior high school.*

Junior standing is prerequisite to all courses in education.

50 Intro. to Educ. (3)

Courses Comprising the Major

✓ 100. Growth and Development of the Child. (3) Either half-year.

Prerequisite: Psychology 1A, 1B.

The essential facts of mental and physical development during childhood and adolescence. Particular attention is given to problems of mental hygiene during critical growth periods.

Section K—Kindergarten-Primary.

Associate Professor MCLAUGHLIN

Section E—General Elementary. Associate Professor WILLIAMS

Section J—Junior High School. Professor WADDELL

✓ 101. Principles of Teaching. (3) Either half-year.

Prerequisite: Psychology 1A, 1B.

Application of psychological principles to teaching problems at the various school levels.

Section K—Kindergarten-Primary.

Associate Professor MCLAUGHLIN

Section E—General Elementary.

Professor MERIAM, Associate Professor ROBISON, Assistant Professor SEEDS

✓ 102. Introduction to Educational Measurement. (2) Either half-year.

M W, 8; Tu Th, 8, 9.

Associate Professor WILLIAMS

Prerequisite: Psychology 1A, 1B.

An introduction to the problem of measuring the outcomes of instruction.

† Applications for teaching assignments should be made not later than the end of the third year.

* In all cases where two credentials are desired the practice teaching must include both fields.

- ✓103. Social Foundations of Education. (3) Either half-year.
M W F, 10, 2. Professor DARSIE, Associate Professor WOELLNER
Education as a factor in social evolution. Analysis of current educational practices in the light of modern social needs.
- ✓104. The Curriculum. (3) Either half-year.
Selection and arrangement of curricular materials at the different school levels.
Section K—Kindergarten-Primary. Miss GIDDINGS SS 104
M W F, 3, 3.
Prerequisite: Education 101K.
Section E—General Elementary. Professor MERIAM SS
Tu Th, 9, and one additional hour. S/39
Prerequisite: Education 101E.

Elective Courses

106. Primary Activities. (3) Either half-year.
Associate Professor McLAUGHLIN and the STAFF
Prerequisite: Education 100K.
Methods of integrating activities involving art, music, expression, and social studies as found at the lower primary level. Required of kindergarten-primary majors.
113. Nursery School Education. (3) Either half-year.
Associate Professor McLAUGHLIN, Mrs. ROBERTS
Prerequisite: Education 100K; Psychology 112, or equivalents.
- ✓120 The New Educ. (3)
121. Philosophy of Education. (3) II. Sir JOHN ADAMS SS
M W F, 2. S/70
An examination of the various philosophical systems in their relation to the educational theory of their time and the present day.
- ✓122. History of Education. (3) I. M W F, 2. Sir JOHN ADAMS SS
The evolution of educational practices and ideals with emphasis on social, economic, and philosophical backgrounds.
123. Exposition and Illustration in Teaching. (3) I. Sir JOHN ADAMS
M W F, 3.
The nature of knowledge, and the principles underlying its communication to others: the modes in which light may be thrown upon difficulties and obscurities: nature and classification of illustrations.
124. The Psychology of the Class. (3) II. M W F, 3. Sir JOHN ADAMS
A study of collective psychology with special reference to the particular type of the mass unit represented by the class: the treatment involves a critical examination of what underlies the Dalton Plan, and its rivals.
- ✓130. Elementary Education. (2) Either half-year. Tu Th, 8.
Prerequisite: Psychology 1A, 1B. Associate Professor ROBISON
Aim, function, work and attainable goals of the elementary school as a basic part of the elementary system of education; its relation to the community and the other schools of the American series.

- ✓ 132. The Supervision of Teaching. (2) II.
Prerequisite: Education 104, or equivalent.
The technique of supervision, with special emphasis upon the measurement of teaching efficiency.
Section K—Kindergarten-Primary. Associate Professor McLAUGHLIN
Section E—General Elementary. Professor WADDELL
*Section R—Rural Supervision. Associate Professor EBY
- ✓ 135. Rural Society and Education. (3) Either half-year. M W F, 10.
Associate Professor EBY
A study of the social-economic conditions and needs in rural communities as related to rural education.
- ✓ 137. Rural School Organization and Administration. (2) I.
Associate Professor EBY
Prerequisite: Education 104, or equivalent.
A consideration of the problems and principles involved in the organization and administration of a modern rural school system.
- ✓ 142. Introduction to State School Administration. (2) I. S, 9 and 10.
Associate Professor EBY
Principles underlying effective state and county educational organization and administration as shown in practices of representative states. Particular attention is paid to the school system of California.
Admission only with approval of instructor.
- SS
S142
160. Vocational Education. (2) I. Tu Th, 2. Mr. JOHNSON
An attempt to develop an understanding and appreciation of the economic and social significance of vocational education in a democracy.
- SS
S160
164. Vocational Guidance. (2) II. Tu Th, 2. Mr. JOHNSON
The need of vocational guidance in a changing industrial order. The technique of guidance, as exemplified in case studies.
- SS
S170
170. Secondary Education. (3) Either half-year.
M W, 9, and one additional hour. Associate Professor SMITH
Prerequisite: Psychology 1A, 1B.
A study of secondary education in the United States, with special reference to the needs of junior and senior high school teachers.
- 170
Teach of Hist. (2)
181. Principles of Adult Education. (2) Either half-year. Tu Th, 8.
Associate Professor 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.

ENGLISH

¹FREDERIC T. BLANCHARD, Ph.D., Professor of English (Chairman).
 _____, Professor of English.

²HERBERT F. ALLEN, Ph.D., Associate Professor of English.

LILY B. CAMPBELL, Ph.D., Associate Professor of English.

SIGURD BERNARD HUSTVEDT, Ph.D., Associate Professor of English.

ALFRED E. LONGUEIL, Ph.D., Associate Professor of English.

MARGARET S. CARHART, Ph.D., Assistant Professor of English.

CARL S. DOWNES, Ph.D., Assistant Professor of English.

GEORGE S. HUBBELL, Ph.D., Assistant Professor of English.

HARRIET MARGARET MACKENZIE, Ph.D., Assistant Professor of English.

CARLYLE F. MCINTYRE, Ph.D., Assistant Professor of English.

CHARLES A. MARSH, B.S., Assistant Professor of Public Speaking.

LU EMILY PEARSON, Ph.D., Assistant Professor of English.

ALICE O. HUNNEWELL, Instructor in English.

EVALYN A. THOMAS, B.L.I., Instructor in English.

_____, Instructor in English.

EDWARD BOCK, A.B., Associate in English.

KATHERINE E. COLLINS, M.A., Associate in English.

AGNES E. PARTIN, A.B., Associate in English.

FREDERICK R. POND, M.A., Associate in English.

PHILIP W. RICE, M.A., Associate in English.

DECALVUS W. SIMONSON, M.A., Associate in English.

HARRISON M. KARR, M.A., Associate in Public Speaking.

JAMES MURRAY, M.A., Associate in Public Speaking.

WESLEY LEWIS, M.A., Associate in Public Speaking.

LLEWELLYN M. BUELL, Ph.D., Lecturer 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 103 of this bulletin.

Letters and Science List.—The following courses are included in the Letters and Science List: (a) All undergraduate courses in English except 161; (b) All undergraduate courses in public speaking except 10c-10n, and 160c-160d. For regulations governing this list, see page 7.

Preparation for the Major.—English 1A-1B and 56A-56B, or 56c-56d-56E, with an average grade of C.

¹ In residence first half-year only, 1930-31.

² In residence second half-year only, 1930-31.

The Major.—1. Students must present, in the first term 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, and one restricted senior course, to be taken in the senior year.

3. The student must maintain an average grade of C in upper division English courses, and at the end of the senior year must pass a comprehensive final examination.

The Minor in English in Teachers College.—1A, 1B, 56A, 56B, or 56C, 56D, 56E; 6 units from 110, 117, 121A–121B, 125G–125H, 130, 153.

The Minor in Public Speaking in Teachers College.—1A, 1B, 5A, 5B, 110A, 110B; or 2A, 2B, 10A, 10B, 111A, 111B.

LOWER DIVISION COURSES

Freshman Courses

1A–1B. First-Year Reading and Composition. ³⁻³ (3) Beginning either half-year. Professor BLANCHARD and STAFF

M W F, 8, 9, 10, 11, 12, 2, 3.

Open to all students who have received a passing grade in Subject A.

*4A–4B. } World Literature. (1–1) Yr. Professor BLANCHARD
*4C–4D. }

Sophomore Courses

English 1A–1B is prerequisite to all sophomore courses in English except that 56C may be taken concurrently with 1B with consent of the instructor.

51A–51B. Writing Based on Nineteenth Century Masterpieces. ²⁻² (2–2) Yr. Assistant Professors MACKENZIE, PEARSON

56A. Survey of English Literature. (3) I.

Associate Professors HUSTVEDT, ALLEN, LONGUEIL, CAMPBELL, Assistant Professors CARHART, HUBBELL, MACKENZIE, MACINTYRE, PEARSON.

Exclusively for students who have completed 56B. To be discontinued after January, 1931.

56B. Survey of English Literature. (3) I.

Associate Professors HUSTVEDT, ALLEN, LONGUEIL, CAMPBELL, Assistant Professors CARHART, HUBBELL, MACKENZIE, MACINTYRE, PEARSON.

Exclusively for students who have completed 56A. To be discontinued after January, 1931.

* Not to be given, 1930–31.

56C-56D-56E. Survey of English Literature. (2-2-2) Three half-years.

Associate Professors HUSTVEDT, ALLEN, LONGUEIL, CAMPBELL,
Assistant Professors CARHART, HUBBELL, MACKENZIE,
MACINTYRE, PEARSON.

new
This course duplicates course 56A-56B.

UPPER DIVISION COURSES

English 1A-1B, and either 56A-56B or 56D-56E are prerequisite to all upper division courses in English.

Group I—Unrestricted Courses

✓ 106K. Advanced Composition. (2) Either half-year.

Associate Professors ALLEN, HUSTVEDT, LONGUEIL, CAMPBELL,
Assistant Professors CARHART, HUBBELL, DOWNES.

Prerequisite: the consent of the instructor.

✓ 110. English Diction and Style. (3) Either half-year.

M W F, 8.

Assistant Professor HUBBELL

✓ 114A-114B. English Drama from the Beginning to 1900. (3-3) Yr.

Associate Professor CAMPBELL, Assistant Professor CARHART

✓ 121A-121B. Nineteenth Century Poetry. (3-3) Yr.

Associate Professors HUSTVEDT, LONGUEIL, Assistant Professor
MACINTYRE.

(A) Wordsworth to Tennyson; (B) Tennyson to Swinburne.

✓ *125C-125D. The English Novel. (3-3) Yr. Professor BLANCHARD

M W F, 2.

✓ *125G-125H. Nineteenth Century Prose. (3-3) Yr.

Associate Professor ALLEN, Assistant Professor MACINTYRE

✓ 130A-130B. American Literature. (2-2) Yr. Tu Th, 8, 12.

Assistant Professors DOWNES, HUBBELL

✓ 153A. Introduction to the Study of Poetry. (3) Either half-year.

Professor BLANCHARD, Associate Professor ALLEN

This course is designed to afford an introduction to the principles of criticism. It is offered both for those who desire a general acquaintance with poetry and for those who intend to select a European literature as a major. Lectures, reading of masterpieces in translation, frequent examinations.

✓ 156. The Age of Elizabeth. (3) Either half-year.

Associate Professors ALLEN, CAMPBELL

* Not to be given, 1980-81.

157. The Age of Milton. (3) Either half-year.
Associate Professor HUSTVEDT, Assistant Professor MACKENZIE
- ✓161. Junior High School English. (2) I. M W, 3.
Assistant Professor MACKENZIE
167. The Age of Pope and Johnson. (3) I. Professor BLANCHARD
M W F, 12.
Prerequisite: the consent of the instructor.

Group II—Restricted Courses

A. THE JUNIOR COURSE

(Sections limited to forty students each)

Designed primarily for juniors whose major subject is English. With the consent of the instructor, open to other juniors who have had equivalent preparation.

- ✓117J. Shakespeare. (3) Either half-year. M W F, 12, 2.
Associate Professors LONGUEIL, CAMPBELL, Assistant Professors
CARHART, DOWNES
- A survey of from twelve to fifteen plays, with special emphasis on one chronicle, one comedy, and one tragedy.

B. SENIOR COURSES

(Sections limited to twenty students each)

Designed primarily for seniors whose major subject is English. With the consent of the instructor, open to other juniors who have had equivalent preparation.

- ✓151H. Tragedy. (3) Either half-year.
M W F, 9. Associate Professors ALLEN, CAMPBELL
- ✓151L. Chaucer. (3) Either half-year.
Associate Professors HUSTVEDT, LONGUEIL

C. 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 two 3-hour papers, the second 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 Board of Examiners of the Department, and on occasion will be supplemented by an oral examination. The student should attend the general conferences held by the board, and may also consult individually with the members of the board. The student's preparation for this examination will presumably extend throughout the entire period of his upper division residence. The work should at no time be entered by the student upon his study card as a separate item in his program for a particular session. However, upon the student's passing the examination the grade assigned by the Department will be recorded. Given each half-year, credit 3 units.

PUBLIC SPEAKING*

LOWER DIVISION COURSES

- ✓ 1A-1B. Elements of Public Speaking. (3-3) Beginning either half-year.
Assistant Professor MARSH, Mr. LEWIS, Mr. KARR, Mr. MURRAY
- ✓ 2A-2B. The Fundamentals of Expression and Interpretation. (3-3)
Beginning either half-year. Mrs. HUNNEWELL, Miss THOMAS
M W F, 8, 9, 12 (for those beginning in September); M W F, 11
for those beginning in February).
- ✓ 5A-5B. Principles of Argumentation. (3-3) Yr. M W F, 10.
Assistant Professor MARSH, Mr. LEWIS
Prerequisite: Public Speaking 1A-1B and the consent of the
instructor.
- ✓ 10A-10B. } Dramatic Interpretation. (3-3) Yr. Miss THOMAS
10C-10D. }
M W F, 2.

UPPER DIVISION COURSES ?

- ✓ 110A-110B. Third-Year Public Speaking. ³⁻³ (3) Yr. M W F, 10.
Prerequisite: course 5A-5B. Assistant Professor MARSH
First half-year, oral argumentation and debate; preparation of
briefs; presentation of arguments. Second half-year, practice in
extemporary speaking; the preparation of the occasional address.
Open to students selected from 110A.
- ✓ 111A-111B. Literary Interpretation. (3-3) Beginning either half-year.
Mrs. HUNNEWELL, Miss THOMAS
M W F, 11 (for those beginning in September); M W F, 9 (for
those beginning in February).
Prerequisite: course 2A-2B.
The study of typical literary forms such as the ballad, the lyric,
the essay, and the short story.
- 160A-160B. } Debates on Public Questions. (2-2) Yr.
160C-160D. } Assistant Professor MARSH
Several of the prominent questions of current interest will be
thoroughly studied. Students will be expected to do original research,
and to submit the results of their study in briefs and written argu-
ments. Oral debates will be held in class.

* A major in public speaking in the College of Letters and Science is not offered in the University of California at Los Angeles. Students wishing to satisfy the requirements for a major in public speaking are referred to the Announcement of Courses in the Departments at Berkeley.

FRENCH

HENRY RAYMOND BRUSH, Ph.D., Professor of French (Chairman).

PAUL PÉRIGORD, Ph.D., Professor of French Civilization.

ALEXANDER GREEN FITE, Ph.D., Associate Professor of French.

LOUIS F. D. BROIIS, M.A., Associate in French.

ETHEL WILLIAMS BAILEY, Ph.B., Associate in French.

MARIUS BIENCOURT, Lic. ès Lettres, Associate in French.

PAUL BONNET, Lic. ès Lettres, Associate in French.

JULIA BROQUET, M.A., Associate in French.

ANNA FÉNELON HOLAHAN, Ph.B., Associate in French.

ALICE HUBARD, M.A., Associate in French.

MADELEINE L. LETESSIER, A.B., Associate in French.

PAUL H. LARWILL, Bach. de Phil., Lecturer in French.

Letters and Science List.—All undergraduate courses in French except 190 are included in the Letters and Science List of Courses. For regulations governing this list, see page 7.

Preparation for the Major.—French A, B, C, D, or their equivalents. Two years of high school Latin 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 French, including French 101A-101B, 109A-109B, 112A-112B.

Any of the remaining upper division courses may be applied on the major. With the permission of the department, 4 units of the 24 may be satisfied by appropriate upper division courses in the following departments: English, German, Greek, Latin, Spanish, Italian, or philosophy.

The Minor in Teachers College.—A, B, C, D, or the equivalent; 101A, 101B.

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 student who has matriculation credit for two years of high school French will receive any credit for French A or A².

A. Elementary French. (5) Either half-year. Mr. BROIIS in charge
M Tu W Th F, 9, 10, 12, 3.

Not open for credit to students who have credit for two years of high school French.

- *A². Elementary French. (3) I. Mr. BRIOIS in charge
M W F, 2.
Intended for students who have had one year of high school French.
Not open for credit to students who have credit for two years of high school French.
- ✓ B. Elementary French. (5) Either half-year. Mr. BRIOIS in charge
M Tu W Th F, 12, 2.
Prerequisite: course A or A² or two years of high school French.
Not open for credit to students who have credit for three years of high school French.
- ✓ C. Intermediate French. (3) Either half-year. Mr. BRIOIS in charge
M W F, 9, 11, 2.
Prerequisite: course B or three years of high school French.
Not open for credit to students who have credit for four years of high school French.
- ✓ D. Intermediate French. (3) Either half-year. Mr. BRIOIS in charge
M W F, 9, 11.
Prerequisite: course C or four years of high school French.
- ✓ 5A-5B. Advanced French. (3-3) Yr. Professor PERIGORD, Mr. BRIOIS
M W F, 10, 12.
Prerequisite: course D.
- ✓ 5AB. Advanced French. (5) II. Professor BRUSH
M Tu W Th F, 11.
Prerequisite: course D.
- ✓ 19. Dramatic Interpretation in French. (2) I. Miss LETESSIER
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 is 16 units in the lower division, including 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 140A-140B, are conducted entirely in French.

- ✓ 101A-101B. Composition, Oral and Written. (3-3) Yr.
Associate Professor FITE, Mr. BIENCOURT, Mr. LARWILL.
M. W. F, 10, 2.

* Not to be given, 1980-81.

- ✓ 109A-109B. A Survey of French Literature and Culture. (3-3) Yr.
M W F, 12. Professor PÉRIGORD, Mr. LARWILL
(A) The Middle Ages, the Renaissance, and the XVII Century.
(B) The XVIII, XIX, and XX centuries.
- ✓ 112A-112B. The Nineteenth Century. (2-2) Yr. Professor BRUSH
Tu Th, 1.
Prerequisite: courses 101A-101B and 109A-109B.
(A) From 1789 to 1850. (B) From 1850 to 1885.
- ✓ 114A-114B. Contemporary French Literature from 1885 to the Present.
(2-2) Yr. Tu Th, 11. Associate Professor FITZ
- ✓ 115A-115B. Modern French Drama. (2-2) Yr. Assistant Professor FITZ
- ✓ *118A-118B. The Sixteenth Century. (2-2) Yr. Professor BRUSH
- ✓ 120A-120B. The Seventeenth Century. (2-2) Yr. Associate Professor FITZ
M W, 11.
- ✓ 121A-121B. The Eighteenth Century. (2-2) Yr. Professor BRUSH
Tu Th, 2.
- ✓ 130A-130B. Grammar, Composition and Style. (2-2) Yr.
Tu Th, 10. Associate Professor FITZ
Prerequisite: an average grade higher than C in French courses.
Practice in oral and written composition based on selected models.
This course is required at Berkeley of all candidates for the certificate
of completion of the teacher-training curriculum, or for the M.A. degree.
- ✓ 140A-140B. French Civilization. (2-2) Yr. Professor PÉRIGORD
Tu Th, 2.
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 pri-
marily for majors in English and history.
- ✓ 190. The Teaching of French. (2) I. Professor BRUSH
Tu Th, 9.
Prerequisite: French 101A-101B and 109A-109B, the latter being
permitted concurrently.

* Not to be given, 1980-81.

GEOGRAPHY

GEORGE M. McBRIDE, Ph.D., Professor of Geography (Chairman).

BURTON M. VARNEY, Ph.D., Associate Professor of Geography.

RUTH EMILY BAUGH, Ph.D., Assistant Professor of Geography.

MYRTA LISLE McCLELLAN, B.S., Assistant Professor of Geography.

CLIFFORD M. ZIERER, Ph.D., Assistant Professor of Geography.

———, Assistant in Geography.

Letters and Science List.—All undergraduate courses in geography except 169 are included in the Letters and Science List of Courses. For regulations governing this list, see page 7.

Preparation for the Major.—Required: Geography 1A-1B, Geology 1C or 1A, and in addition, two of the following courses: Geography 3, 5, 8. Recommended: Astronomy 1, Economics 1A-1B, one year of history, Physics 1A-1B, Political Science 3A-3B, Geology 1B and 2C, 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 plus 6 or 3 units selected, with the approval of the department, from some one of the following departments: botany, economics, geology, history, political science.

The Minor in Teachers College.—1A-1B, followed by either 3, 5, or 8; 6 units of elective upper division geography, in which 169 may not be included.

Laboratory Fee.—Geography 1A-1B, \$2.00 per half-year.

LOWER DIVISION COURSES

✓ 1A-1B. Elements of Geography. (3-3) Beginning either half-year.

Professor McBRIDE and the STAFF

Lectures, two hours; laboratory, two hours; field trips.

A study of the main features of the physical environment in their relation to man's life and activities.

✓ 3. Introduction to Weather and Climate. (3) Either half-year.

Associate Professor VARNEY

Prerequisite: Geography 1A-1B.

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.

✓ 5. Economic Geography. (3) Either half-year.

Assistant Professor ZIERER

Prerequisite: Geography 1A-1B, or Geography 1 taken before September, 1929.

The principles of economic geography as developed from a study of areas chosen from all parts of the world.

8. The Geographic Basis of Human Society. (3) Either half-year.
Assistant Professor BAUGH

Prerequisite: Geography 1A-1B, or Geography 1 and 2.

A study of various types of physical habitat in relation to social organization and institutions, together with the corresponding human culture.

UPPER DIVISION COURSES

Geography 1A-1B, followed by 3, 5, or 8 are prerequisite to all upper division courses except 181. (Geography 1 and 2 will be accepted as prerequisite.)

101. Field Course; the Geography of Los Angeles and its Environs.
(3) II. Saturdays. Assistant Professor ZIERER
An expenditure of \$5 for transportation may be incurred by each student; registration to be made only after consultation with the instructor.
A field study in urban geography based on the Los Angeles metropolitan area. The course affords training in the theory and technique of urban analysis.
111. The Conservation of Natural Resources. (3) I.
Assistant Professor 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) Either half-year.
Associate Professor VARNEY
Geography 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) Either half-year.
Prerequisite: Geography 113. Associate Professor VARNEY
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.
121. The Geography of North America. (3) I.
Assistant Professor ZIERER
Consideration of the principal economic activities and life of the people in each of the major geographic regions of North America in relation to the natural environment.
122. The Geography of Latin America. (3) I. Professor McBRIDE
A study of the physical conditions characterizing the countries of Latin America, particularly in relation to the life of the inhabitants.
- 122B Geog. of Latin America (cont.) (3)

- ✓ 123. The Geography of Europe. (3) II. Assistant Professor BAUGH
 A survey of the major natural divisions of Europe. The effect of geographic conditions upon the distribution of population, upon the progress of selected countries, and upon the economic activities of peoples.
- ✓ 124. The Geography of Asia. (3) II. Assistant Professor MCCLELLAN
 A study of the geographic problems which determine the social and economic conditions in the leading countries of Asia.
- ✓ 131. The Geography of California. (3) Either half-year.
 Assistant Professor MCCLELLAN
 A comparison and contrast of California's geographic advantages and handicaps; a tracing of the relationships between the natural resources of the state and the activities of the inhabitants.
- ✓ 155. Advanced Economic Geography. (3) II. Assistant Professor ZIERER
 Special prerequisite: Geography 5.
 A detailed analysis of selected problems from the fields of industrial and commercial geography.
- ✓ 169. The Teaching of Geography. (3) Either half-year.
 Assistant Professor MCCLELLAN
 Limited to twenty students, registration to be made only after consultation with the instructor.
 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.
- ✓ 171. The Geographic Setting of American History. (3) I.
 Professor McBRIDE
 Additional prerequisite: a university course in American history.
 The purpose of this course is to study the influence of the physical environment upon the distribution, culture, and historical development of the peoples inhabiting the Americas.
- ✓ 181. Current Problems in Political Geography. (2) II.
 Prerequisite: junior standing. Professor McBRIDE
 Consideration of the geographical basis of some important problems of domestic and international affairs, with stress upon the geographic principles involved.
199. Problems in Geography. (2) Either half-year. The STAFF
new Open only to seniors who have the necessary preparation for undertaking individual study of the problem. Registration only after conference with the instructor concerned.

GEOLOGY

WILLIAM JOHN MILLER, Ph.D., Sc.D., Professor of Geology (Chairman).
 E. K. SOPER, Ph.D., Associate Professor of Geology.
 ALFRED R. WHITMAN, Ph.D., Associate Professor of Geology.
 COLIN H. CRICKMAY, Ph.D., Assistant Professor of Geology.
 JOSEPH MURDOCH, Ph.D., Instructor in 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 7.

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

The Major.—Geology 102A-102B (4), 103 (4), 199A-199B (4), and 12 units chosen from geology (including mineralogy and paleontology) and allied courses in chemistry, physics, zoology, and geography. The student's program is to be made out in accordance with some definite plan approved by the department.

The Minor in Teachers College.—1A or 1C, 1B, 107, Paleontology 111.

Laboratory Fee.—Mineralogy 3A-3B, \$1.50 per half-year.

GEOLOGY

- 1A. General Geology: Dynamical and Structural. (3) Either half-year.
 M W F, 8, 12. Associate Professor SOPER, Dr. MURDOCH
 Prerequisite: Elementary chemistry and physics.
 Two field trips (half-day) required. Sections limited to forty students.
 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.
 (NOTE.—Not open to students who have taken or are taking Geology 1C).
- 1B. General Geology: Historical. (3) Either half-year. Professor MILLER
 M W F, 9. Two field trips (half-day) required.
 Prerequisite: Geology 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) Either half-year.
 Professor MILLER, Associate Professor SOPER,
 Assistant Professor CRICKMAY.

M W F, 10, 11; Tu Th S, 10.

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.

(NOTE.—Not open to students who have taken or are taking Geology 1A).

- ✓ 2c. Map Study of Physiography. (1) Either half-year.
 W, 2-5. Assistant Professor CRICKMAY
 Prerequisite: Geology 1A or 1c.

UPPER DIVISION COURSES

- ✓ 102A-102B. Field Geology. (2-2) Yr. Associate Professor WHITMAN
 S, 9-5.

Prerequisite: Geology 1B, 103, and Civil Engineering 11A-11B, 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. Associate Professor WHITMAN
 Lectures, M F, 11; laboratory, M F, 2-5. Two lectures and two laboratory periods each week.

Prerequisite: Geology 1A, Mineralogy 3A-3B, and college chemistry.

The general characteristics, origin, mode of occurrence and nomenclature of rocks, and description of the more common types, accompanied by determinative laboratory practice.

- ✓ *104. Petrographical Laboratory. (3) II. Associate Professor WHITMAN
 Lectures, W, 12; laboratory, M F, 2, 3, 4.

Prerequisite: Geology 103.

Mineral optics and microscopy, and the study of thin sections of rocks.

- ✓ 106. Economic Geology: Metalliferous Deposits. (3) II

M W F, 9.

Associate Professor WHITMAN

Prerequisite: Geology 1A, 1B, Mineralogy 3A-3B, and Geology 103.

A systematic study of ore occurrences, and of the genetic processes and structural factors involved.

* Not to be given, 1930-31.

- ✓107. Physical Geology of North America. (2) II. Professor MILLER
 Tu Th, 9.
 Prerequisite: Geology 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. Professor MILLER
 Tu Th, 9.
 Prerequisite: Geology 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. Associate Professor SOPER
 M W F, 11.
 Prerequisite: Geology 1A, 1B, 102A.
 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 exploration. Lectures, map work, problems and field trips to nearby oil fields.
- ✓116. Structural Geology. (3) I. Associate Professor SOPER
 Lecture, M W, 11; laboratory, W, 2-5.
 Prerequisite: Geology 1A; Geology 102A-102B, which may be taken concurrently; and a working knowledge of descriptive geometry.
 The phenomena of fracture, folding, flow, and the graphic solution of problems with laboratory and field investigations.
- ✓199A-199B. Problems in Geology. (2-2) Yr. To be arranged.
 Professor MILLER and the STAFF
 Open only to seniors who are making geology their major study.
 Reports and discussions.

MINERALOGY

- ✓3A-3B. Introduction to Mineralogy. (3-3) Yr. Dr. MURDOCH
 Lecture, M, 1; laboratory, Tu Th, 1-4.
 Prerequisite: Elementary chemistry and physics.
 Lectures and laboratory practice in crystal morphology and projection, determination of minerals by their physical and chemical properties, and descriptive mineralogy.
 This course supplants Mineralogy 1, and is not open to students who took Mineralogy 1 prior to September, 1928.

PALEONTOLOGY*

✓ 111. Systematic Paleontology. (4) I. Assistant Professor CRICKMAY
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.

Assistant Professor CRICKMAY

Lecture, Th, 11; laboratory, 6 hours.

Prerequisite: Paleontology 111, and Geology 1B.

A general survey of the history of living things from fossil evidence. Paleogeography is studied concurrently as a background to the migration of faunas.

✓ 113. Interpretative Paleontology. (3) II. Assistant Professor CRICKMAY
Lecture, Tu, 11; laboratory, 6 hours.

Prerequisite: Paleontology 111 or Zoology 1A.

A course designed to acquaint the student with paleontological problems and methods. One or more of the important invertebrate groups of fossils will be selected and studied in detail with regard to taxonomy; description; ontogeny in relation to affinity; phylogeny; phenomena and principles of evolution; binomy; and modern paleontological concepts.

* Courses in Vertebrate Paleontology may be found in the announcement of the Department of Biology (p. 18).

GERMAN

WILLIAM DIAMOND, Ph.D., Associate Professor of German.

ROLF HOFFMANN, Ph.D., Associate Professor of German.

ALFRED KARL DOLCH, Ph.D., Assistant Professor of German.

FRANK HERMAN REINSCH, Ph.D., Assistant Professor of German.

PHILIP ROBERT PETSCH, J.D., Instructor 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 7.

Preparation for the Major.—Required: German A-B (10) and C-D (6) or their equivalents. Recommended: History 4A-4B, Philosophy 3A-3B, English 1A-1B.

The Major.—Twenty-four units in upper division courses, including 106A-106B and at least 8 units made up from senior courses 111A-111B, 118A-118B, and 119. Students looking forward to the secondary credential should take 106A-106B, and 106C-106D.

The Minor in Teachers College.—A, B, C, D, or the equivalent; 6 units of elective credit in upper division German.

LOWER DIVISION COURSES

The ordinary prerequisites for each of the lower division courses are listed under the description of these courses. Students who have had special advantages in preparation may, upon examination, be permitted a more advanced program; or such students may be transferred to a more advanced course by recommendation of the instructor.

- ✓ A. Elementary German. (5) Either half-year.
 Seven sections. Assistant Professor REINSCH in charge
 This course corresponds to the first two years of high school German.
 Not open for credit to students who have credit for two years of high school German.
- ✓ B. Elementary German. (5) Either half-year. ———
 Prerequisite: course A or two years of high school German.
 Not open for credit to students who have credit for three years of high school German.
- ✓ C-D. Intermediate German. (3-3) Yr.
 Associate Professor DIAMOND in charge
 M W F, 10, 12, 2.
 Prerequisite: course B or three years of high school German.
 — This course is conducted in German and furnishes the regular preparation for the upper division courses.

✓ CD. Intermediate German. (5) II.

Associate Professor **DIAMOND** in charge
Prerequisite: course B or three years of high school German.

19. Dramatic Interpretation in German. (2) II.

Associate Professor **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 first 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 is course C-D (or CD) or four years of German in high school. In cases of special merit admission may be granted on three years of high school German.

✓ 104A-104B. Introduction to Modern German Literature. (3-3) Yr.

M W F, 11.

Assistant Professor **REINSCH**

Selected works of Heinrich von Kleist, Grillparzer, Hebbel, Ludwig, Wildenbruch, Fulda, Halbe, Hauptmann, Sudermann.

✓ 105A-105B. German Classics of the Eighteenth Century. (3-3) Yr.

M W F, 8.

Associate Professor **DIAMOND**

Selected works of Lessing, Goethe, Schiller.

✓ 106A-106B. Grammar, Composition, and Conversation. (2-2) Yr.

Tu Th, 9.

Assistant Professor **DOLCH**

✓ 106C-106D. Grammar, Composition, and Conversation. (2-2) Yr. Tu Th, 10.

Prerequisite: course 106A-106B.

✓ 110A-110B. German Lyrics and Ballads. (2-2) Yr. Tu Th, 12. —

The German ballad and lyric poetry from the Middle Ages to the present.

✓ 111A-111B. Novelists of the Nineteenth Century. (2) Yr. Tu Th, 8.

Associate Professor **DIAMOND**.

Prerequisite: course 104A-104B, 105A-105B, or 106A-106B.

Selected novels of Hauff, Freytag, Spielhagen, Ludwig, Keller, Meyer, and others.

✓ 118A-118B. History of German Literature. (3-3) Yr. M W F, 10.

Associate Professor **HOFFMANN**

Prerequisite: courses 104A-104B or 105A-105B.

First half-year: The Middle Ages. Second half-year: from the Reformation to the death of Goethe. Lectures and discussions; collateral reading.

✓ 119. Middle High German. (3) II.

Assistant Professor **DOLCH**

Prerequisite: course 104A-104B or 105A-105B, and 118A.

Outline of grammar. Selections from the Nibelungenlied, the Kudrun, and the Court epics.

HISTORY

FRANK J. KLINGBERG, Ph.D., Professor of History (Chairman).

JOSEPH B. LOCKEY, Ph.D., Professor of History.

JOHN CARL PARISH, Ph.D., Professor of History.

¹WALDEMAR WESTERGAARD, Ph.D., Professor of History.

ROWLAND HILL HARVEY, Ph.D., Associate Professor of History.

LOUIS K. KOONTZ, Ph.D., Associate Professor of History.

WILLIAM F. ADAMS, Ph.D., Assistant Professor of History.

DAVID K. BJORK, Ph.D., Assistant Professor of History.

LUCY M. GAINES, M.A., Assistant Professor of History.

JOHN W. OLMSTED, A.B., Assistant Professor of History.

BRAINERD DYER, M.A., Associate in History.

ROLAND D. HUSSEY, M.A., Associate in History.

LILY B. CAMPBELL, Ph.D., Associate Professor of English.

BARBARA JOHNSON MORGAN, Associate in Fine Arts.

Letters and Science List.—All undergraduate courses in history except 11 and 190 are included in the Letters and Science List of Courses. For regulations governing this list, see page 7.

Preparation for the Major.—Required: History 4A-4B, or 5A-5B, or 8A-8B, and either Political Science 3A-3B, or Political Science 51A-51B, or Economics 1A-1B, or Geography 1 and 2, or Philosophy 3A-3B. Students who have not had at least two years of European history in high school must take either History 4A-4B or 5A-5B.

Recommended: French, or German, or Latin, or Spanish, or 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: 121A-121B, 142A-142B, 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: History 121A-121B, or 142A-142B, 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.

Recommended Courses in Other Departments.—The attention of history majors is called to Ancient Civilizations 112A-112B, which may, with the approval of the department, be counted on the major.

The Minor in Teachers College.—4A, 4B, or 5A, 5B, or 8A, 8B; 6 units of elective credit in upper division history.

¹In residence second half-year only, 1930-31.

LOWER DIVISION COURSES

✓ 4A-4B. Social and Political History of Modern Europe. (3-3) Beginning either half-year.

Professor WESTERGAARD, Associate Professor KOONTZ, Assistant Professors BJORK, GAINES, OLMSTED, Mr. DYER.
M W F, 9, 11, 12, 2, 3.

✓ 5A-5B. History of England and Greater Britain. (3-3) Beginning either half-year.

Professor KLINGBERG, Associate Professor HARVEY, Assistant Professors ADAMS, OLMSTED
M W F, 8, 10, 12, 2.

✓ 8A-8B. History of the Americas. (3-3) Beginning either half-year.

M W F, 8, 9, 11. Professor LOCKEY, Mr. HUSSEY, Mr. DYER

✓ 9A-9B. } Great Personalities. (2-2) Yr. Tu Th, 10.
9C-9D. }

First half-year, England. Associate Professor HARVEY

Second half-year, Continental Europe. Assistant Professor BJORK

✓ *11. Social Studies in the Kindergarten-Primary Grades. (2) Either half-year.

Prerequisite: Psychology 1A.

Treats of sources of material, curricula now in use, and projects.

✓ 39. Pacific Coast History. (2) Either half-year.

Tu Th, 12, 2.

Assistant Professor GAINES

✓ *57. History of Canada. (2) II.

✓ 75. Economic History of England. (3) I. Associate Professor HARVEY

✓ 76. Economic History of the United States. (3) II.
Associate Professor HARVEY

UPPER DIVISION COURSES

Prerequisite: History 4A-4B, or History 5A-5B, or History 8A-8B, or equivalent preparation in history.

General Requirement: Term papers will be required each half-year of all students in senior history classes (199A-199B). Enrollment in these courses is limited to fifty.

✓ 121A-121B. The Middle Ages. (3-3) Yr. Assistant Professor BJORK
M W F, 8.

*131A-131B. The Renaissance. (2-2) Yr.

Professor KLINGBERG, Associate Professor CAMPBELL, Mrs. MORGAN

(A) The civilization of the Renaissance in Italy.

(B) The civilization of the Renaissance in northern Europe.

* Not to be given, 1980-81.

- ✓ 142A-142B. Modern Continental Europe since 1648. (3-3) Yr.
Professor WESTERGAARD, Assistant Professor ADAMS
- ✓ *144A-144B. History of Northern and Eastern Europe. (2-2) Yr.
Professor WESTERGAARD
Prerequisite: senior standing, German or French or Latin or one of the Scandinavian languages, and two years of college history, including History 4 or 5, and one upper division course, preferably in continental or English history.
(A) Rise and decline of the Swedish Baltic empire and the rise of modern Russia.
(B) The Viking Age, Hanseatic League, the struggle for the control of the Baltic.
- ✓ 153A-153B. Social and Political History of Modern England: 1603 to the Present. (3-3) Beginning either half-year.
Professor KLINGBERG, Associate Professor HARVEY.
M W F, 11 (for those beginning in September); M W F, 12 (for those beginning in February).
- ✓ *155A-155B. History of the British Empire. (2-2) Yr.
Professor KLINGBERG
Prerequisite: senior standing and two years of college history, including History 4 or 5 or 8 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.
Professor LOCKEY
- ✓ *164A-164B. History of Inter-American Diplomatic Relations. (2-2) Yr.
Professor LOCKEY
Prerequisite: senior standing and two years of college history, including History 8 or 162.
- ✓ 171A-171B. History of the United States. (3-3) Beginning either half-year.
Professor PARISH, Associate Professor KOONTZ
A general course dealing with the English colonies and the political history of the United States.
- ✓ 173A-173B. The Civil War and Reconstruction. (2-2) Yr. Mr. DYER
- ✓ *181A-181B. History of the Westward Movement. (2-2) Yr.
Professor PARISH
Prerequisite: senior standing and two years of college history, including one upper division course. In any event, History 8 or 171 is a prerequisite.
A study of expansion in the United States from the Atlantic to the Pacific.

* Not to be given, 1930-31.

190. Social Sciences for Junior High Schools. (2) II.

Associate Professor KOONTZ

This course duplicates 77 given prior to 1930-31.

✓199A-199B. Special Studies in History. (2-2) Yr.

Professors KLINGBERG, LOCKEY, PARISH, WESTERGAARD,
Assistant Professor BJORK

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.

new 149A-B Hist. of Russia (2-2) Yr.
Prince hobanov-Rostovisky

HOME ECONOMICS

- HELEN B. THOMPSON, Ph.D., Professor of Home Economics (Chairman).
 GRETA GRAY, Ph.D., Associate Professor of Home Economics.
 VERZ R. GODDARD, Ph.D., Assistant Professor of Home Economics.
 BERNICE ALLEN, M.A., Associate in Home Economics.
 MAUD D. EVANS, M.A., Associate in Home Economics.
 MARGARET C. JONES, M.A., Associate in Home Economics and Supervisor
 of Classes for the Training of Home Economics Teachers.
 PAULINE F. LYNCH, M.A., Associate in Home Economics.
 FLORENCE A. WILSON, M.A., Associate in Home Economics.

The Teachers College

Preparation for the Major.—Home Economics 1A, 1B, 11A, 43B; Art 22N, 18; Chemistry 2A, 2B, 10; Physiology 1.

The Major, leading to the Secondary Special Credential in Home Making.—Home Economics 108, 110, 118, 120, 160A, 160B and six units of advanced home economics approved by the department.

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

The Minor in Home Economics.—

1. Home Economics 1A, 1B, 175, 179, or
2. Home Economics 1A, 11A, 32, 43B, 160A, and 5 units of advanced home economics approved by the department.
3. Home Economics 11A, 11B, 110, 118A-118B, 120.

Vocational Home Economics.—A two and one-half year vocational curriculum in home economics is maintained under the provisions of the Smith-Hughes Act. This curriculum leads to recommendation for the secondary special teaching credential in home making. It is open to mature students who are high school graduates 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**

Home Economics 1A, 1B, 11A, 11B, 110, 118A-118B, 120, 159 are included in the Letters and Science List of Courses.

Laboratory Fees.—The fee required for courses 1A, 2, 175, 179 is \$1; for course 1B is \$1.50; for courses 11A, 11B, 33, 108, 110, 120, 125, 159 is \$2.75.

* A major in home economics in the College of Letters and Science is not offered at the University of California at Los Angeles. Students wishing to satisfy the requirements for a major in household art or household science are referred to the Announcement of Courses in the Departments at Berkeley.

LOWER DIVISION COURSES

- ✓ 1A. Clothing (Household Art 1A). (3) Either half-year. Miss EVANS, Miss LYNCH
 Prerequisite: matriculation credit in "clothing" or Art 2A.
 The study of kinds and qualities of materials for different uses; typical forms of clothing; artistic appreciation, standards and hygienic characteristics of dress.
- ✓ 1B. Clothing Economics (Household Art 1B). (2) Either half-year. Miss LYNCH
 Prerequisite: Economics 1A.
 Clothing industries and clothing standards in relation to the economic and social life of the community; quantity and cost budgets for individuals and for family groups.
- ✓ 2. The Study of Dress. (3) II. Miss LYNCH
 Prerequisite: Home Economics 1A.
 A study of the artistic qualities of dress design, pattern, color and weave of fabrics; hygienic and economical standards in the selection and care of clothing.
- ✓ 11A. Elementary Food (Household Science 1A). (3) Either half-year. Miss ALLEN
 Prerequisites: high school chemistry or Chemistry 2A.
 The production, transportation, and marketing of food materials; the principles involved in food preparation and preservation; compilation of recipes; practice in judging food preparations and in meal service.
- ✓ 11B. Food Economics (Household Science 1B). (3) Either half-year. Miss ALLEN
 Prerequisite: Economics 1A, Home Economics 11A.
 The classification, occurrence, and general properties of foodstuffs; the legal and sanitary aspects of food products handled in commerce; food values in relation to cost; 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) Either half-year. Professor THOMPSON
 Prerequisite: six units of natural science.
 The principles of nutrition and their application in normal and sub-normal conditions of growth and physical development.
- ✓ 33. Elementary Dietetics. (3) II. Miss ALLEN
 Prerequisite: Chemistry 10, Home Economics 11A, 11B, 32.
 Principles of diet applied to individuals, the family, and other groups.
- ✓ 43A-43B. Elementary Household Administration. (2-2) Beginning either half-year. Miss JONES
 Prerequisite: Economics 1A, Psychology 1A.
 Household equipment; efficient and sanitary methods of work; business principles and administrative methods applicable to the household; study of social projects including the care and training of children.

UPPER DIVISION COURSES

- ✓ 108. Textiles. (2) Either half-year. Miss WILSON
 Prerequisite: Art 2A, Chemistry 10, Economics 1A.
 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 Composition. (4) Either half-year. Assistant Professor GODDARD
 Prerequisite: Chemistry 8A or 10, and six or more units in Home Economics.
 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. Professor THOMPSON
 Prerequisite: Home Economics 110, Physiology 1.
 Discussions of the chemical and biological factors in metabolism, energy transformations, 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) Either half-year. Assistant Professor GODDARD
 Prerequisite: Chemistry 8A or 10, Home Economics 118.
 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; computation 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. (3) II. Miss ALLEN
 Prerequisite: Home Economics 110.
 Quantitative methods in food preparation under controlled conditions.
- ✓ 147A. Development of Home Economics Education. (3) Either half-year. Miss EVANS
 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.

- ✓ 147B. Principles of Home Economics Teaching. (3) Either half-year.
Prerequisite: Home Economics 147A. Miss EVANS, Miss JONES
Study of typical courses and their presentation; critical review of texts and references for elementary and secondary schools.
- ✓ 159. Food and Nutrition Problems. (3) Either half-year.
Prerequisite: Home Economics 120.
Professor THOMPSON, Assistant Professor GODDARD
Assigned problems for investigation involving the economic uses, the dietary values, or nutritional tests of food materials.
- ✓ 160A-160B. Household Administration. (3-3) Beginning either half-year.
Associate Professor GRAY
Prerequisite: Economics 1A, 1B, or six or more units in Home Economics.
Economic organization and administration of the activities of the home; household budgets and accounts; standards of living; household sanitation.
- ✓ 175. Advanced Study of Costume. (3) II. Miss WILSON
Prerequisite: Art 13, Home Economics 1A, 1B.
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. Clothing Problems. (3) I. Miss WILSON
Prerequisite: Economics 1A, 1B, or Home Economics 1A, 1B.
Special problems in the history and organization of the clothing trades and industries, the manufacture and utilization of fabrics, qualities and standards of textiles, and individual and household practices in clothing selection.
- ✓ 180. Problems in Household Economics. (3) Either half-year.
Prerequisite: Home Economics 160A. Associate Professor GRAY
Library and field work in investigation of an assigned problem in housing, household equipment, family expenditures, standards of living, or of community conditions and activities related to the home.

MATHEMATICS

- EARLE R. HEDRICK, Ph.D., Professor of Mathematics (Chairman).
 GEORGE E. F. SHERWOOD, Ph.D., Professor of Mathematics.
 PAUL H. DAUS, Ph.D., Associate Professor of Mathematics.
 GLENN JAMES, Ph.D., Associate Professor of Mathematics.
 WILLIAM M. WHYBURN, Ph.D., Associate Professor of Mathematics.
 CLIFFORD BELL, Ph.D., Assistant Professor of Mathematics.
 RAYMOND GARVER, Ph.D., Assistant Professor of Mathematics.
 HARRIET E. GLAZIER, M.A., Assistant Professor of Mathematics.
 GUY H. HUNT, C.E., Assistant Professor of Applied Mathematics.
 WENDELL E. MASON, M.S.E., M.E., Assistant Professor of Applied Mathematics.
 EUPHEMIA R. WORTHINGTON, Ph.D., Assistant Professor of Mathematics.
 FREDERICK C. LEONARD, Ph.D., Assistant Professor of Astronomy.
 JOHN D. HILL, Assistant in Mathematics.
- HARRY M. SHOWMAN, E.M., M.A., Lecturer in Mathematics and Recorder.

Letters and Science List.—All undergraduate courses in mathematics except 19 and 74, and all undergraduate courses in Astronomy and Engineering, are included in the Letters and Science List of Courses. For regulations governing this list, see page 7.

Preparation for the Major.—Required: Mathematics C (or the equivalent), 8, 5, 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.—Mathematics 111, 112, and 119, together with fifteen 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.

The Minor in Teachers College.—Mathematics C, 8, 5 (or 3A), 9A (or 3B), 9B (or 4A); 6 units chosen from: 101, 102, 104, 109 (or 4B), 111, 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 and also plane trigonometry may be excused, upon examination, from course 8.

Pre-Engineering and Pre-Chemistry.—The University of California at Los Angeles offers the first two years in preparation for admission to the junior year 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 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 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.—The fees required for Civil Engineering 1FA-1FB are \$5 per half-year; for Civil Engineering 3 the fee is \$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) Either half-year.
 Tu Th, 9. Assistant Professors HUNT, MASON
 Prerequisite: High school geometry and one and one-half years of elementary algebra or Mathematics 8.
- ✓ F. Spherical Trigonometry. (1) Either half-year.
 Assistant Professors HUNT, MASON
 Prerequisite: plane trigonometry and solid geometry.
- ✓ 2. Mathematics of Finance. (3) Either half-year. M W F, 11.
 Prerequisite: Mathematics 8.
 Associate Professor JAMES, Assistant Professor BELL
- ✓ 3A. Plane Analytic Geometry. (3) Either half-year. M W F, 9, 11, 12.
 Associate Professors DAUS, WHYBURN
 Prerequisite: Mathematics C and 8 or the equivalents.
- ✓ 3B. Differential Calculus. (3) II. Assistant Professors GARVER, GLAZIER
 Prerequisite: Mathematics 3A or its equivalent.
- ✓ 3C. Differential and Integral Calculus. (6) I. Professor SHERWOOD
 M Tu W Th F S, 8.
 Prerequisite: Mathematics 3A.
 For students beginning calculus in the second year.
 This course is equivalent to Mathematics 3B and 4A (or to 9A and 9B, by permission). Engineers must take Mathematics 4B also.
- ✓ 4A-4B. Solid Analytic Geometry and Integral Calculus. (3-3) Yr.
 M W F, 10. Professor HEDRICK
 Prerequisite: solid geometry and Mathematics 3B.
 Course 4B is equivalent to Mathematics 109.
- ✓ 5. Analytic Geometry. (3) Either half-year.
 Assistant Professor WORTHINGTON
 Prerequisite: Mathematics C and 8 or the equivalent.

6. Advanced Geometry. (2) Either half-year. ^{wc 3}
 Tu Th, 10. Associate Professor JAMES
 Prerequisite: Mathematics 3A or 5, and consent of instructor.
7. Survey of Mathematics. (2) Either half-year. Professor HEDRICK
 Tu Th, 11.
 Prerequisite: high school geometry and one year of high school algebra.
 This course is an attempt to tell non-mathematical students, without the use of formulas, the aims and purposes of mathematics, and to explain what each branch is about. It is hoped that those who take it will be better able to think about quantitative situations.
8. College Algebra. (3) Either half-year. M Tu W Th F, 8, 9, 12.
 Associate Professor WHYBURN, Assistant Professor WORTHINGTON and others
 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 few who require extra review and drill.
- 9A-9B. Differential and Integral Calculus. (3-3) Yr.
 M W F, 10, 12. Assistant Professor BELL
 Prerequisite: Mathematics 5.
19. Foundations of Arithmetic. (2) Either half-year. Tu Th, 10, 11.
 Prerequisite: sophomore standing. Assistant Professor GLAZIER
- *74. The Teaching of Junior High School Mathematics. (3) 1.

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, 8.
 Prerequisite: courses 5 and 6. Associate Professor 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 9. Assistant Professor WORTHINGTON
 Selected topics in elementary algebra, with particular reference to modern points of view.
104. History of Mathematics. (3) I. Assistant Professor GLAZIER
 M W F, 2.
 A non-technical course open to students who have some knowledge of the fundamental ideas of analytic geometry and calculus.
109. Calculus: Third Course. (3) I. M W F, 12.
 Prerequisite: course 9. Assistant Professor WORTHINGTON
 Course 109 is equivalent to Mathematics 4B.

- ✓ 111. Theory of Algebraic Equations. (3) Either half-year. M W F, 11.
Prerequisite: courses 8 and 9. Assistant Professor GARVER
- ✓ 112. Analytic Geometry of Space. (3) Either half-year.
M W F, 11. Professor SHERWOOD
Prerequisite: courses 5, 6, and 9.
- ✓ 114. Modern Geometry. (3) II. Professor SHERWOOD
Prerequisite: courses 5, 6, and 9.
Introduction to modern methods in geometry.
- ✓ 115. Theory of Numbers. (3) II. Associate Professor DAUS
- ✓ 119. Differential Equations. (3) Either half-year. M W F, 10.
Associate Professor JAMES
Prerequisite: course 109 or its equivalent.
- ✓ 122A-122B. Advanced Calculus. (3-3) Yr. M W F, 10.
Prerequisite: course 109. Professor HEDRICK
- ✓ 124. Vector Analysis. (3) II. Associate Professor JAMES
Prerequisite: Mathematics 109 and one year of college physics.
- ✓ 125A-125B. Analytic Mechanics. (3-3) Yr.
Associate Professor WHYBURN
Prerequisite: course 109 or its equivalent.
- ✓ 190. The Teaching of Mathematics. (3) II. Assistant Professor GLAZIER
M W F, 12.
Prerequisite: course 9 or its equivalent.
A critical inquiry into present-day tendencies in the teaching of
mathematics.

CIVIL ENGINEERING†

- ✓ 11A-11B. Plane Surveying Lectures. (2-2) Beginning either half-year.
Tu Th, 9, 10. Assistant Professors HUNT, MASON
Prerequisite: trigonometry and geometric drawing.
- ✓ 11A-11B. Plane Surveying Field Practice. (1-1) Beginning either half-year.
Assistant Professors HUNT, MASON
M or W or F, 2-5; Tu or Th, 1-4; S, 8-11.
This course may be taken only in conjunction with, or subsequent to,
Civil Engineering 11A-11B.
- ✓ 3. Summer Class in Plane Surveying. (3) Assistant Professor MASON
Prerequisite: Civil Engineering 11A-11B.
Four weeks of field work after the close of the school year.
- ✓ 8. Materials of Engineering Construction. (2) Either half-year. Tu Th, 8.
Prerequisite: sophomore standing. Assistant Professor MASON

† First two years only.

ASTRONOMY†

LOWER DIVISION COURSES

- ✓ 1. Elementary Astronomy. (3) Either half-year.
 Sec. 1, M W F, 8; Sec. 2, M W F, 2. Assistant Professor LEONARD
 Prerequisite: elementary algebra and plane geometry.
 An introductory, descriptive course in the general principles and facts of astronomy, presented as far as possible in non-technical language.
- ✓ 3. Surveyors' Course in Practical Astronomy. (1) II, Th, 1-4.
 Assistant Professor LEONARD
 Prerequisite: Civil Engineering 1FA, and credit or registration in Civil Engineering 1FB.
 A course intended primarily for engineers. The principles of spherical trigonometry and elementary practical astronomy adapted to the needs of students in the Colleges of Engineering. Computing.
- ✓ *5. History of Astronomy. (3) I. Assistant Professor LEONARD
 Prerequisite: Astronomy 1.
- ✓ 11. Modern Astronomy. (3) II. Assistant Professor LEONARD
 Prerequisite: Astronomy 1.
 The stars and nebulae. Progress in astronomy through modern methods, especially the spectroscopic and the photographic.

UPPER DIVISION COURSES

- ✓ 103A-103B. General Astronomy. (3-3) Yr. Assistant Professor LEONARD
 Prerequisite: Mathematics 3A and Physics 2A-2B, or their equivalent.
 The general principles and facts of astronomy in all its branches developed and discussed in detail.
- ✓ 117. Astrophysics. (3) I. Assistant Professor LEONARD
 Tu Th, 12, and one laboratory period.
 A general review of present-day problems in astrophysics, with particular reference to the application of the spectroscope to their solution. Open to upper division students whose major subject is mathematics, physics, or chemistry.

* Not to be given, 1930-31.

† A major in astronomy in the College of Letters and Science is not offered in the University of California at Los Angeles. Students wishing to satisfy the requirements for a major in astronomy are referred to the Announcement of Courses in the Departments at Berkeley.

MECHANIC ARTS

HAROLD WILLIAM MANSFIELD, Assistant Professor of Mechanic Arts and Director of Shops (Chairman).

FOSS R. BROCKWAY, Associate in Mechanic Arts.

ADRIAN D. KELLER, B.S. in E.E., Associate in Mechanic Arts.

JAMES WILLARD MARSH, Associate in Mechanic Arts.

CHARLES H. PAXTON, A.B., Associate in Mechanic Arts.

JOHN B. PHILLIPS, Associate in Mechanic Arts.

The Teachers College

Preparation for the Major.—Physics 2A, 2B; Mechanical Engineering D; Mechanic Arts 10, 11, 40, 51, 65A, 65B, 75A, 80A.

The Major, leading to the Secondary Special Credential in Industrial Arts Education.—30 units of advanced work approved by the department.

The Minor in Education.—Education 103, 160A, 160B, 170, Directed Teaching, 6-10 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 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.

*The College of Letters and Science**

Mechanical Engineering D, 1, 2, 6, and 7 are included in the Letters and Science List of Courses.

Laboratory Fees.—A fee of \$3.00 is required for each of the following courses: Mechanic Arts 10, 11, 12; 40, 65A, 65B, 75A, 75B, 80A, 80B, 100A, 100B, 130, 131, 140A, 140B, 141, 160, 161, 176A, 176B.

MECHANICAL ENGINEERING*

✓ D. Engineering Drawing. (2) Either half-year.

Assistant Professor MANSFIELD, Mr. PAXTON

Sec. 1, Tu Th, 9; Sec. 2, Tu Th, 10. Drafting, four hours to be arranged.

✓ 1. Elements of Heat Power Engineering. (3) L
M W F, 11.

Mr. PAXTON

* The University of California at Los Angeles offers the first two years in preparation for admission to the junior year of the colleges of engineering in the University at Berkeley. Students intending to pursue their studies in these colleges should present their programs for approval to the pre-engineering adviser.

- ✓ 2. Descriptive Geometry. (3) Either half-year. Mr. PAXTON
Lecture, Tu, 11. Drafting, 1-4, six hours to be arranged.
- ✓ 6. Machine Drawing. (3) Either half-year. Mr. PAXTON
Lecture, W, 10. Drafting, 1-4, six hours to be arranged.
Prerequisite: Mechanical Engineering 7.
Design and delineation of simple machine parts in the drafting room, with special emphasis upon the production of drawings which conform to standard practice.
- ✓ 7. Mechanism. (2) Either half-year. Mr. PAXTON
Lecture, M. F, 10.
A study of motions in machines without reference to the forces which produce them.
108 Treat. of Engr. Materials (2)

MECHANIC ARTS

- ✓ 10. Shop Work. (2) I. Mr. KELLER
Bench work in wood. Fundamental tool and joinery operations. Lathe work, including spindle, face-plate, chuck and mandrel turning.
- ✓ 11. Shop Work. (2) II. Mr. KELLER
Building construction. Foundation layout and form building. Essential operations in framing and finishing including interior trim, built in features. Use of steel square.
- ✓ 12. Shop Work. (2) I. Mr. KELLER
Care, operation, adjustment and maintenance of wood-working tools and machinery.
- ✓ 20A-20B. Printing. (3-3) Yr. Mr. BROCKWAY
Principles, maintenance, and operation of the school print shop. Problems and practice in job printing and newspaper make-up; type and equipment.
- ✓ 40. Shop Work. (2) I. Mr. MARSH
Storage battery construction and repair; lead burning; battery charging, treatment, and care.
- ✓ 50. Machine Drawing. (2) I. Assistant Professor MANSFIELD
Technical sketching, lettering, assembly and detail drawing; design of shop projects.
- ✓ 51. Architectural Drawing. (2) II. Assistant Professor MANSFIELD
Lettering, details of typical frame and masonry construction, plans, elevations, sections, and specifications.

65A-65B. Shop Work. (3-3) Yr.

Mr. BROCKWAY, Mr. MARSH

(A) Principles of automobile construction and repair. Cut-away units and dry chassis and engines used. Take down and assembly of all units; the repair and operation of internal combustion engines.

(B) General automobile repair.

75A-75B. Shop Work. (2-2) Yr.

Mr. PHILLIPS

Elementary machine shop practice, fundamental operations and tool processes; practical operation of standard power tools.

80A-80B. Sheet Metal. (2-2) Yr.

Assistant Professor MANSFIELD, Mr. MARSH

Work in tin plate, galvanized iron and other metals; development of patterns in drafting room; use, care and upkeep of bench and machine equipment.

92A-92B Related Tech. Subjects. (3-3)

100A-100B. Shop Work. (3-3) Yr.

Mr. KELLER

(A) Furniture construction and repair, finishing and refinishing. Study of period furniture. Construction, methods of laying out various parts, use of jigs. Methods of preparing and applying paint, stains, varnishes and lacquers in finishing and refinishing. Making of models, showing correct construction of table corner, rails and legs, drawer, etc. Construction of projects suitable for junior high school work.

(B) Study of principles of design. Upholstering tools and equipment, materials used, cost of materials, etc. Construction of more advanced projects than in 100A.

130. General Shop. (2) I.

Mr. BROCKWAY

Analysis and construction of "projects" involving combined use of various tools, materials, and processes.

131. General Metal Shop. (2) II.

Mr. BROCKWAY

A study of metals and metal working methods; heat treatments; oxy-acetylene welding, brazing, forging, and plate metal working.

140A-140B. Applied Electricity. (2-2) Yr.

Mr. MARSH

(A) Fundamental principles of electricity; electric and magnetic circuits; induction; with applications.

(B) Construction of simple electric circuits, splicing and joining wires; installation of common fixtures and devices; development of high school projects; transformers; radio circuits.

141. Electric Apparatus. (2) II.

Mr. MARSH

Electric generators; motors; transformers; instruments and their principles and use; presented in lectures, demonstrations and shop applications.

160. The Automobile. (3) I. Mr. BROOKWAY, Mr. MARSH
Principles and design of internal combustion engines; the essentials of automotive electrics; carburetion; lubrication and operation. Lectures and demonstrations.
161. Automotive Laboratory. (3) II. Mr. MARSH
Laboratory engine timing, operating and testing. Trouble shooting. Analysis of gasoline, fuel and lubricating oils.
- 176A-176B. Shop Work. (2-2) Yr. Mr. PHILLIPS
Advanced machine shop practice, machine and bench work, machine construction and repair; tool making; heat treatment of steel.
190. Organization and Administration of Industrial Arts Education. (2) II. Assistant Professor MANSFIELD

MILITARY SCIENCE AND TACTICS

PERRY L. MILES, Colonel, U. S. Army, Professor of Military Science and Tactics (Chairman).

GUY G. PALMER, Colonel, U. S. Army, Retired, Professor of Military Science and Tactics, Emeritus.

R. C. BAIRD, Major, U. S. Army, Assistant Professor of Military Science and Tactics.

JAMES E. MATHEWS, Captain, U. S. Army, Assistant Professor of Military Science and Tactics.

JOHN B. SHERMAN, First Lieutenant, U. S. Army, Assistant Professor of Military Science and Tactics.

HAROLD E. SMYSER, First Lieutenant, U. S. Army, Assistant Professor of Military Science and Tactics.

WILLIAM V. WITCHER, 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 7.

A major in military science and tactics in the College of Letters and Science is not offered in the University of California at Los Angeles. In Berkeley, a combination major of military science and either (a) history and political science, or (b) jurisprudence may be offered. Students wishing to satisfy the requirements for such a combination major are referred to the Announcement of Courses in 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 student 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 gymnastic 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.

Fee for basic course, fifty cents per semester.

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 to the Department of Military Science and Tactics 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.

Professor MILES, Assistant Professors BAIRD, MATHEWS,
WITCHER, SHERMAN, SMYSER

†Field, M F, 8, 11, 1. Two hours of field instruction; one hour of class instruction. For class instruction see Schedule.

Instruction in rifle marksmanship, military courtesy, military hygiene and first aid, scouting and patrolling, drill and command, leadership, the National Defense Act, and the R. O. T. C.

✓ 2A-2B. Basic Military Training. (1½-1½) Yr.

Professor MILES, Assistant Professors BAIRD, MATHEWS,
WITCHER, SHERMAN, SMYSER

†Field, M F, 8, 11, 1. Two hours of field instruction; one hour of class instruction. For class instruction see Schedule.

Instruction in scouting and patrolling, musketry, combat principles, automatic rifle, drill and command, and leadership.

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 Director of the University of California at Los Angeles and the professor of military science and tactics, and who executes the following written agreement,

† Each student must enroll for two hours of field instruction and one hour of class instruction each week.

will be entitled, while not subsisted in kind, to a commutation of subsistence fixed by the Secretary of War in accordance with law (about \$120.00 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 B. 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)

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) Either half-year.

Tu W Th, 8, 11.

Assistant Professor SMYSER

Instruction and practice in the duties of officers in connection with the basic course; instruction in map reading and military sketching; 37 mm. gun and 3-inch trench mortar, combat principles of the rifle section, and drill and command.

✓ 103B. Advanced Infantry Training. (3) Either half-year.

Tu W Th, 8, 11.

Assistant Professors MATHEWS, SHERMAN

Instruction and practice in the duties of officers in connection with the basic course; instruction in machine gun drill, theory of fire, direct and indirect fire, barrage firing, and tactical handling in the offense and defense; instruction in the combat principles of the machine gun section and platoon, and of the rifle platoon.

✓ 104A. Advanced Infantry Training. (3) Either half-year.

Assistant Professors BAIRD, MATHEWS, WITCHER

Tu W Th, 8, 11.

Instruction and practice in the duties of officers in connection with the basic course; instruction in company administration, military history, evolution of the military policy of the United States, National Defense Act, and elements of military field engineering, and instruction in military law, courts-martial, and Officers' Reserve Corps regulations.

✓ 104B. Advanced Infantry Training. (3) Either half-year.

Assistant Professor BAIRD

† Tu Th, 8, 11.

Theoretical instruction covering the rifle and machine gun company and the howitzer-company platoon as part of the infantry battalion. Applicatory exercises on map, sand table or relief map, and terrain. Elementary instruction in infantry signal communication.

Students who satisfactorily complete a course in a Reserve Officers' Training Corps or a military training summer camp conducted by the United States Government may receive credit toward graduation at the rate of one-half ($\frac{1}{2}$) 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 (6) units.

† Each student must enroll for one hour's duty as instructor in the basic course.

MUSIC

GEORGE STEWART McMANUS, Mus. Bac., Professor of Music (Chairman).

_____, Professor of Music.

FRANCES A. WRIGHT, Associate Professor of Music.

BERTHA W. VAUGHN, Teacher of Voice.

SQUIRE COOP, Lecturer in Music.

ARNOLD J. GANTVOORT, Lecturer in Music.

WILLIAM J. KRAFT, Mus. Bac., F.A.G.O., Lecturer in Music.

GEORG SCHNEEVOIGT, Lecturer in Music.

The Teachers College

Preparation for the Major.—Music 1A, 1B, 3A, 3B, 4A, 4B, 7A, 7B, 8A, 8B, 55A, 55B.

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

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

The Minor in Music.—

1. 1A, 1B, 4A, 4B, 111A, 111B or
2. 1A or 9A, 9B, 3A, 3B, 111A, 111B.

*The College of Letters and Science**

Music 1A, 1B, 3A, 3B, 4A, 4B, 9A-B-C-D, 10A-B-C-D, 55A, 55B, 101A, 101B, 105A, 105B, 111A, 111B, 150A-150B, are included in the Letters and Science List of Courses.

- ✓ 1A-1B. Solfeggio. (3-3) Yr. Mr. GANTVOORT
Theory and practice of reading and writing music.
- ✓ 3A-3B. History of Music. (2-2) Yr. Professor McMANUS
Lectures with illustrations. A survey of the history of music.
- ✓ 4A-4B. Elementary Harmony. (3-3) Yr. Mr. GANTVOORT
Prerequisite: Music 1A-1B.
- ✓ 7A-7B. Elementary Voice. (1-1) Yr. Mrs. VAUGHN
- ✓ 8A-8B. Advanced Voice. (1-1) Yr. Mrs. VAUGHN
- 9A-B-C-D. Choral Practice. (1-1) Yr. (Teach Max. 4 Yr.) Mr. COOP
Open only to vocalists of ability.

* A major in music is not offered in the College of Letters and Science in the University of California at Los Angeles. Students wishing to satisfy the requirements for a major in music are referred to the Announcement of Courses in the Departments at Berkeley.

- ✓ 10A-B-C-D. Orchestral Practice. (1-1) Yr. ^(each year) Mr. COOP
- ✓ 55A-55B. Advanced Harmony. (3-3) Yr. Mr. GANTVOORT
Prerequisite: Music 4A-4B.
- A certain degree of proficiency in piano playing is prerequisite to junior standing in the Department of Music.
- ✓ 101A-101B. Counterpoint. (2-2) Yr. Mr. GANTVOORT
Prerequisite: Music 55A-55B.
Practice in one of the technical processes of music writing.
- ✓ 105A-105B. Composition. (2-2) Yr. Professor McMANUS
Prerequisite: Music 55A-55B; senior standing.
Vocal and instrumental composition in the smaller forms.
- ✓ 109A-109B. Conducting. (1-1) Yr. Mr. COOP
Prerequisite: Music 4A-4B.
Chorus organization and training; the technique of the baton.
- ✓ *110A-B-C-D. String Ensemble. (1-1) Yr. ^(each year) Mr. COOP
Prerequisite or concurrent: 9A-B-C-D, permission of instructor.
Technique of ensemble, the material of symphony orchestral repertoire as the university string quartette.
- ✓ 111A-111B. Music Appreciation. (3-3) Yr. Professor McMANUS
Prerequisite: junior standing.
The consideration of music from formal, esthetic, historical, and emotional standpoints.
- ✓ 114A-114B. Instrumentation. (2-2) Yr. Mr. COOP
Prerequisite: Music 55A-55B.
Orchestra, theory and practice of the instruments.
- ✓ 118A-B-C-D. A Capella Choir. (1-1) Yr. ¹⁹³⁰⁻³¹ Mr. COOP
Prerequisite or concurrent: 9A-B-C-D, permission of instructor.
Study of public performance of the polyphonic music of the classical period.
- new 150A-150B. Beethoven. (2-2) Yr. Mr. SCHNEVOIGT
Prerequisite: consent of the instructor.

Music Education

- SS 321 ✓ 60. Elementary Music Education. (2) Either half-year.
Not open to freshmen students. Associate Professor WRIGHT
A professional subject matter course required of all candidates for the general elementary credential.
- ✓ 112A-112B. Music Education. (3-3) Yr. Associate Professor WRIGHT
Prerequisite: junior standing.
Organization and administration of music in elementary and secondary schools.

* Not to be given, 1930-31.

PHILOSOPHY

JOHN ELOF BOODIN, Ph.D., Professor of Philosophy.

CHARLES HENRY RIEBER, Ph.D., LL.D., Professor of Philosophy and Dean of the College of Letters and Science.

CLIFFORD LESLIE BARRETT, Ph.D., Assistant Professor of Philosophy (Chairman).

HUGH MILLER, Ph.D., Assistant Professor of Philosophy.

DONALD C. WILLIAMS, Ph.D., Instructor in Philosophy.

*JAMES H. TUFTS, Ph.D., LL.D., (Professor of Philosophy, University of Chicago). Lecturer in Philosophy.

*KATE GORDON, Ph.D., Associate Professor of Psychology.

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 7.

Preparation for the Major.—Philosophy 1A-1B, 3A-3B, and either Philosophy 50 or 51.

The Major:

Twenty-four units of work are required for the major. Of these, at least eighteen units must be completed in upper division courses of this department. At the option of the student and with the consent of the departmental advisor, as many as six units may be applied toward the major from certain allied courses in other departments.

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.

The Minor in Teachers College.—1A, 1B, or 3A, 3B; 6 units of elective credit in upper division philosophy.

LOWER DIVISION COURSES

Students beginning the study of philosophy may elect either 1A-1B or 3A-3B.

✓ 1A-1B. Logic. (3-3) Beginning either half year.

Professor RIEBER, Dr. WILLIAMS

Beginning in September: M W F, 11, Professor Rieber.

Beginning in February: M W F, 12, Dr. Williams.

A. Deductive Logic. Division, definition, the forms and transformations of judgments, the syllogism.

B. Inductive Logic. The presuppositions, methods, and limits of inductive sciences. Prerequisite: course 1A.

* In residence second half-year only, 1930-31.

✓ 3A-3B. History of Philosophy. (3-3) Yr.

Professor BOODIN, Assistant Professors BARRETT, MILLER

Section 1: M W F, 9, Assistant Professor Barrett; Section. 2: M W F, 12, Professor Boodin; Section 3: M W F, 2, Assistant Professor Miller.

An introductory course, tracing the thought of the major philosophers of the ancient and modern world, with attention to the relationships of philosophical to literary, political, and scientific thought.

50. Problems of Ethics and Religion. (2) Either half-year.

Tu Th, 9.

Assistant Professor BARRETT

Prerequisite: one course in philosophy.

An introduction to the basic problems of morality and religion, with a survey of representative approaches to their solution.

51. Problems of Metaphysics and Knowledge. (2) Either half-year.

Tu Th, 11.

Assistant Professor MILLER, Dr. WILLIAMS

Prerequisite: one course in philosophy.

An introduction to the problems of metaphysics and to central issues in theories of knowledge.

UPPER DIVISION COURSES

Prerequisite to all upper division courses: junior standing and six units of credit in philosophy.

✓ 104. Ethics. (3) II. M W F, 10. Assistant Professor BARRETT

Consideration of the meaning of morality, and examination of moral problems.

✓ 112. Philosophy of Religion. (3) I. Professor RIEBER
M W F, 2.

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. Professor BOODIN

Reading of the *Critique of Pure Reason*, together with explanatory and critical comment on Kant's main position in the fields of religion and ethics.

✓ *116. Plato. (2) I. Professor BOODIN

The Philosophy of Plato will be considered, with special attention to its development in the *Republic*.

✓ 117. Aristotle. (2) I. Tu, 3, 4. Professor BOODIN

Aristotle's philosophy and its significance for present thought.

* Not to be given, 1930-31.

✓ 119. Josiah Royce and Modern Idealism. (2) II. Professor BOODIN

✓ 121. Social and Political Philosophy. (3) I. M W F, 10.

Assistant Professor BARRETT

The principles of political organization, viewed in relation to representative theories of the nature of the individual and society.

123. Seventeenth Century Philosophy. (3) I.

M W F, 10.

Assistant Professor MILLER

The rise of modern science, and the Cartesian and empirical philosophies based upon its principles.

This course duplicates course 118, given prior to September, 1930.

124. Nineteenth Century Philosophy. (3) II.

Assistant Professor MILLER

A survey of those movements of nineteenth century thought which are of importance for the thought of today.

This course duplicates course 113, given prior to September, 1930.

*136A-136B. Esthetics. (3-3) Yr.

Associate Professor GORDON

A. Discussion of the standards of taste (including experiments in group judgments), the individual and the social function of art, emotion, imagination. Study of certain principles of beauty in visual arts.

B. Discussion of the concepts of "Soul," "Self," and "Character," with special reference to their meaning in art. Also a study of some of the principles of esthetic value in the musical and literary arts.

141A-141B. Present Tendencies of Thought. (2-2) Yr. Tu Th, 10.

Dr. WILLIAMS

A study of the movements of contemporary thought in philosophy.

✓ 146. Philosophy of Literature. (3) II. M W F, 2. Professor 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.

✓ 151. Philosophy of Nature. (3) I. M W F, 11. Professor BOODIN

An interpretation of evolution and of man's place in the universe.
Text: Boodin's *Cosmic Evolution*.

✓ 152. Metaphysics. (3) II. M W F, 11. Professor BOODIN

An examination of the chief types of theory of reality and an attempt at an idealistic synthesis.

Text: Boodin's *Realistic Universe*.

161. Epistemology. (2) II.

Assistant Professor MILLER

A study of the nature of knowledge in its formal and psychological characters.

163. Philosophy of Mind. (3) I. M W F, 9.

Dr. WILLIAMS

A survey of doctrines of the behavior and structure of mind, with consideration of the relations of current psychological and philosophical views.

174. Evolution of Morality. (3) II.

Professor TURTS

Prerequisite: Philosophy 104 and the permission of the department.

A study of the historical development of moral standards in relation to social, economic, and political conditions, and to custom, law, and religion.

PHYSICAL EDUCATION FOR MEN

WILLIAM H. SPAULDING, A.B., Director of Physical Education for Men (Chairman).

FREDERICK W. COZENS, Ph.D., Associate Professor and Associate Director of Physical Education for Men.

PAUL FRAMPTON, Ed.B., Assistant Supervisor of Physical Education for Men.

FRED H. OSTER, Assistant Supervisor of Physical Education for Men.

WILLIAM C. ACKERMAN, Ed.B., Associate in 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.

WILLIAM BURKE, Assistant in Physical Education for Men.

JOHN F. DUFF, Assistant in Physical Education for Men.

SILAS GIBBS, Ed.B., Assistant in Physical Education for Men.

HARRY TROTTER, Assistant in Physical Education for Men.

PIERCE H. WORKS, A.B., Assistant in Physical Education for Men.

WILLIAM J. NORRIS, M.D., Physician for Men.

LEWIS GUNTHER, M.D., Assistant Physician for Men.

Physical Education 3 is prescribed for all first-year and second-year undergraduate male students who were under twenty-four years of age at the time of admission to the University. A student claiming exemption because of age will present to the Recorder 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.

The Teachers College

Preparation for the Major.—Chemistry 2A-2B; Physiology 1; Biology 1; Zoology 35; Physical Education 1, 3 (2 units); 5, 29A-B-C-D.

The Major, leading to the Secondary Special Credential in Physical Education.—Physical Education 130A-B-C-D, 131, 140, 149, 154, 155A, 155B, 156A, 156B, 182, †190, †192A, †192B.

The Minor in Education.—Education 102, 103, 170, Directed Teaching 10 units.

The Minor in Physical Education for Men.—Physical Education 3 (2 units), 181, 140, 154, and 155A, 155B or 156A, 156B.

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

*The College of Letters and Science**

Physical Education 1 and 3 are included in the Letters and Science List of Courses.

Medical Examination.—(a) Students entering the University for the first time and (b) reentering students (not in attendance during the preceding semester) must pass a medical examination. The examiner may exempt the student from required military training; he may assign the student to the individual gymnastics section of Physical Education 3.

Gymnasium Suit Fee.—All students unless excused from Physical Education by formal petition are required to pay a gymnasium suit fee of \$5.00 at the time of first registration. This fee entitles the student to the use of a regulation gymnasium costume during his course. Tennis shoes must be furnished by the individual.

- ✓ 1. Hygiene and Sanitation. (1) Either half-year. Dr. NORRIS
Th, 8.
- ✓ †3. Prescribed Physical Education for Freshmen and Sophomores. (‡) Either half-year. Associate Professor COZENS and the STAFF
Baseball, basket-ball, boxing, fencing, American football, gymnastics, handball, swimming, tennis, track, wrestling, individual gymnastics. Sections meet twice weekly. Section assignments are made by the department after students have been classified on the basis of physical efficiency, health, strength, endurance, agility, ability to swim and skill in self-defense.
Physical Education 3 may be elected by students in the junior and senior years.
- new 5. First Aid and Bandaging. (1) II. Mr. PARK
The care of common accidents and emergencies on the playground and athletic field.
- ✓ 29A-B-C-D. Practice in Athletic Activities. (1-1). Yr. Mr. FRAMPTON
(Teach Max. 4 hr)
Required of physical education majors in their first and second years of work.
- 130A-B-C-D. Practice in Athletic Activities. (1-1) Yr. Associate Professor COZENS
(Teach Max. 4 hr)
Required of physical education majors in their third and fourth years of work.
- ✓ 131. Administration of Physical Education. (2) II. Mr. FRAMPTON
Details of the organization of physical training activities, organization and classification of children, planning of school programs, arrangement and construction of equipment.

* A major in physical education in the College of Letters and Science is not offered at the University of California at Los Angeles. In the College of Letters and Science at Berkeley a combination major of Physical Education and Hygiene may be offered. Students planning to become candidates for the A.B. degree at Berkeley, offering this major, are referred to the publications of the departments at Berkeley.

† For full statement of the requirements of this course refer to Circular of Information.

- ✓ 140. Physical Education Tests and Measurements. (2) II.
Associate Professor COZENS
Anthropometric measurements; cardiovascular and physiological ratings, physical efficiency and motor ability tests. Common tests used in physical education will be presented and criticized; conditions under which they may be used.
- ✓ 149. Kinesiology. (3) I. M W F, 10. Mr. FRAMPTON
Prerequisite: Zoology 35.
- ✓ 154. Practice and Methods in Teaching Elementary School Activities. (2) I.
Mr. FRAMPTON
The technique of activities taught in the elementary school leading up to games of higher organization.
- ✓ 155A-155B. Practice and Methods in Teaching Gymnasium Activities. (2-2) Yr. Associate Professor COZENS
Prerequisites: Gymnastics, and boxing or wrestling.
Tactics, free exercises, apparatus, gymnastic dancing, and gymnastic games.
- * 156A-156B. Practice and Methods in Coaching Athletics. (2-2) Yr. Mr. SPAULDING
Prerequisite: Track, and basket-ball or baseball.
(A) Football and basket-ball. (B) Track and baseball.
- ✓ 182. Corrective Physical Education. (3) II. Mr. FRAMPTON
Prerequisite: Physical Education 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.

* Not to be given, 1930-31.

PHYSICAL EDUCATION FOR WOMEN

RUTH V. ATKINSON, M.A., Assistant Professor and Director of Physical Education for Women (Chairman).

LUCILE R. GRUNEWALD, M.A., Assistant Director of Physical Education for Women.

EDITH R. HARSHBERGER, M.A., Assistant Supervisor of Physical Education for Women.

HAZEL J. CUBBERLEY, B.S., Assistant Supervisor of Physical Education for Women.

MARTHA B. DEANE, B.S., Assistant Supervisor of Physical Education for Women.

—————, Assistant Supervisor of Physical Education for Women.

M. EFFIE SHAMBAUGH, M.A., Assistant Supervisor of Physical Education for Women.

DIANA ANDERSON, A.B., Associate in Physical Education for Women.

ETHEL SUTTON BRUCE, Associate in Physical Education for Women.

BERTHA A. HALL, A.B., Associate in Physical Education for Women.

BERNECE H. HOOPER, B.S., Associate in Physical Education for Women.

EDITH I. HYDE, A.B., Associate in Physical Education for Women.

MARION A. SHEPARD, A.B., Associate in Physical Education for Women.

—————, Associate in Physical Education for Women.

LILLIAN RAY TITCOMB, M.D., Physician for Women.

KATHARINE M. CLOSE, M.D., Lecturer in Hygiene.

SARAH D. KREISS, Nurse and Assistant.

RUBY I. MCLINN, R.N., Nurse.

Physical Education 4 is prescribed for all first-year and second-year undergraduate women students who were under twenty-four years of age at the time of admission to the University. A student claiming exemption because of age will present to the Recorder 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 reentering students (not in attendance during the preceding semester) must pass a medical examination. The examiner may assign students to individual physical education.

The Teachers College

Preparation for the Major.—Physical Education 50A, 50B, 55, 62A, 62B, 63A, 63B, 73A, 73B, and one of the following sequences: (1) Chemistry 2A, 2B or Physics 4A, 4B; Biology 1; Zoology 35; Physiology 1, Home Economics 32. (2); Zoology 1A, 1B, 106; Physiology 1, Home Economics 32.

The Major, leading to the Secondary Special Credential in Physical Education.—Physical Education 120, 149, 175, 180A, 180B, 181A, 181B, 182, 183, 190, 192A, 192B.

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

The Minor in Physical Education for Women.—Physical Education 4 (3 units required without repetition of courses), 44, 111, 104, 112, 114A, 114B.

*The College of Letters and Science**

Physical Education 2, 4, 44, 104, and 114A-114B are included in the Letters and Science List of Courses.

✓2. Hygiene. (2) Either half-year. M F, 1.

Dr. TITCOMB

✓†4. Prescribed Physical Education for Freshmen and Sophomores. (‡)
Either half-year. Assistant Professor ATKINSON and STAFF

Folk dancing, character dancing, natural dancing, baseball, basketball, archery, hockey, lacrosse, soccer, volleyball, tennis, individual gymnastics. Sections meet twice weekly; section assignments are made by the department.

Physical Education 4 may be elected by students in junior and senior years.

✓44. Health Education. (2) Either half-year.

Miss HARSHBERGER

A course in positive health for the college woman. Discussions and lectures on problems in personal, home, community, national, and international health.

✓50A-50B. Gymnastics. (1-1) Yr. *with 1/2 each* *50 AB. 1925-27*

55. Introduction to the Study of Physical Education. (1) II. *1925-27*

Assistant Professor ATKINSON, Miss HARSHBERGER *1-1*

Discussion of present day objectives in physical education and their relation to the physical education program. Job-analysis in physical education and a brief survey of the literature in the field.

✓62A-62B. Dramatic Games and Folk Dancing. (1-1) Yr. —

* A major in physical education is not offered in the College of Letters and Science in the University of California at Los Angeles. 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 Announcement of Courses in the Departments at Berkeley.

† For full statements of the requirements of this course refer to the Circular of Information.

- ✓ *63A-63B. Music Analysis and Natural Dancing. (1-1 Yr. Miss DEANE
A study of music structure from the standpoint of dance, leading to music interpretation and dance creation. Elementary natural dancing.
- ✓ 73A-73B. Sophomore Major Athletics. (1-1) Yr. Miss CUBBERLEY
Fundamental technic and rules of field hockey, field ball, soccer, speedball, basketball, volleyball, baseball, and lacrosse.
- ✓ 104. Club Activities and Campercraft. (2) II. —
The program content for clubs and camps, both local and national, and the contribution which can be made by them to the general education program.
- ✓ 111. Principles and Methods of Teaching Physical Education. (2) Either half year. Miss HOOPER, —
Prerequisite: Psychology 1A-1B, Education 100.
Section K. Kindergarten-Primary.
Section E. General Elementary.
Section J. Junior High School.
- ✓ 112. Principles and Methods of Teaching Health Education. (2) II.
Prerequisite: Psychology 1A-1B, Education 100. Miss HARSHBERGER
- ✓ 114A-114B. Dancing and Pageantry. (1-1) Yr. Miss DEANE
- ✓ 120. Principles and Philosophy of Physical Education. (2) I.
Assistant Professor ATKINSON
Prerequisite: Satisfactory completion of lower division courses in physical education.
History and philosophy of physical education. Interpretation of objectives as a part of the educational program. Detailed discussion of method teaching.
- ✓ 121A-121B. Technic of Teaching Physical Education Activities. (4-4) Yr.
Miss CUBBERLEY, Miss DEANE
Prerequisite: Satisfactory completion of lower division courses in athletics and dancing.
Athletics: Theory and practice in officiating at play days and competitive games; value and use of achievement tests; use of analytic-synthetic method in teaching games and sports.
Dancing: A study 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. Intermediate natural dancing.
- ✓ 149. Kinesiology. (3) I. Miss GRUNEWALD
Prerequisite: Zoology 1B or Zoology 35.

- ✓175. Organization and Administration of Playgrounds. (2) II. —
- ✓180A-180B. Administration of Health Education and Physical Education.
 (2-2) Yr. Assistant Professor ATKINSON, Miss HARSHBERGER
 Prerequisite: Physical Education 120, 121.
 The problem of the administrator and supervisor. Administrative policies of physical education departments in schools and colleges.
- ✓181A-181B. Organization and Management of Physical Education Activities.
 (3-3) Yr. Miss CUBBERLEY, Miss DEANE, —
 Prerequisite: Physical Education 120, 121.
Athletics: Organization of play days and athletic contests; complete management of a county elementary schools play day, grading and tests in the activity program, purchase and care of athletic equipment, the Program of the N.A.A.F.
- Dancing:*
 First Semester.—A consideration of the place of the public performance in the school program—its purpose, types, sources of material, development, organization and presentation. The relation to the dance, music, color, art forms, lighting, costuming, etc.
 Second Semester.—A survey of the field in dancing and public performances, and special problems in organization and management.
 Advanced natural dancing.
- ✓182. Therapeutic Gymnastics. (3) II. Miss GRUNEWALD
 Prerequisite: Physical Education 149.
 Study of posture and etiology and treatment of orthopedic conditions.
- ✓183. Massage and Therapeutic Exercise. (3) I. Miss GRUNEWALD
 Prerequisite: Physical Education 182.
 Study of anthropometry, massage and treatment of remediable conditions. Two hours of clinic per week.
- ✓190. Physiology of Exercise. (3) II. Dr. CLOSE
 Prerequisite: Physical Education 149 and Physiology 1.
- ✓192A-192B. Normal Diagnosis. (2-2) Yr. Dr. CLOSE
 Prerequisite: Physiology 1.

PHYSICS

SAMUEL J. BARNETT, Ph.D., Professor of Physics (Chairman).

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.

VERN O. KNUDSEN, Ph.D., Associate Professor of Physics.

JOSEPH W. ELLIS, Ph.D., Assistant Professor of Physics.

J. KAPLAN, Ph.D., Assistant Professor of Physics.

E. L. KINSEY, Ph.D., Assistant Professor of Physics.

ARTHUR H. WARNER, Ph.D., Instructor in Physics.

LEO P. DELSASSO, A.B., Associate in Physics.

Courses 1A, 1B, 1C, and 1D are fundamental and are designed to meet the needs of students whose major is physics and of students preparing for applications of physics in engineering and chemistry.

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 7.

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 French and German.

The Major.—Twenty-four units of upper division work are required. Courses 105A-105B, 108B, and either 110A-110B or 107A-107B must be included. Mathematics 124 and Chemistry 110 may be counted toward the 24-unit requirement.

The Minor in Teachers College.—1A, 1B, 1C, 1D; one upper division course in Physics.

Laboratory Fees.—The fee for each lower division laboratory course (1A, 1B, 1C, 1D, 2A-2B) is \$4 per half-year. The fee for each upper division laboratory course (107A-107B, 108A-108B, 111) is \$3 per half-year. The student will, in addition, be held responsible for all apparatus lost or broken.

LOWER DIVISION COURSES

Prerequisite for all lower division courses except 4A-4B: 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. Prerequisites for 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 major students in physics and of students in pre-engineering, pre-mining, and pre-chemistry. Physics 1A and 1B

are required of major students in chemistry and of students in architecture. 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.

- ✓ 1A. General Physics: Mechanics of Solids. (3) Either half-year.
 Associate Professors ADAMS, DODD, KNUDSEN, and Assistant Professor ELLIS
 Lecture, Th, 11; quiz and laboratory, 4 hours.
- ✓ 1B. General Physics: Mechanics of Liquids, Heat, and Sound. (3) Either half-year. Associate Professor DODD
 Lecture, Tu, 11; quiz and laboratory, 4 hours.
- ✓ 1C. General Physics: Electricity and Magnetism. (3) I.
 Assistant Professor KINSEY, Dr. WARNER, and Mr. DELSASSO
 Lectures, Tu Th, 9; laboratory, 3 hours.
- ✓ 1D. General Physics: Light. (3) II.
 Assistant Professors ELLIS, KAPLAN, KINSEY, Dr. WARNER, and Mr. DELSASSO
 Lectures, Tu Th, 9; laboratory, 3 hours.
- ✓ 2A-2B. General Physics. (4-4) Yr. Associate Professor EDWARDS
 Lectures, M W F, 11; quiz and laboratory, three hours.
 Mechanics, sound, heat, light, electricity. Prescribed for pre-medical students.
 Course 2B may be taken before 2A with permission of the instructor.
- ✓ 4A-4B. General Physics. (3-3) Yr. Professor BARNETT
 Lectures, M W F, 9. A descriptive course, without laboratory work, fully illustrated by experiments. Prerequisite: Elementary algebra and plane geometry.
 Course 4B may be taken before 4A with permission of the instructor.
- ✓ 5. Electricity and Magnetism. (3) II. M W F, 8. Dr. WARNER
 Prerequisite: Physics 10; Mathematics 4A.
 Preparatory to courses in electrical engineering.

*of fail ...
 take ...
 ...
 ...*

*of 4A, B is taken 1A, B, C, D are credited on ...
 ...
 ...*

UPPER DIVISION COURSES

Prerequisites for all upper division courses: Physics 1A, 1B, 1C, 1D, or 2A-2B (in special cases, 4A-4B); Mathematics 3A-3B; or the equivalents.

*dept for ...
 Norman Hamilton*

- ✓ 105A-105B. Analytic Mechanics. (3-3) Yr. M W F, 12.
 Associate Professor EDWARDS
 The statics and dynamics of particles and rigid bodies.

- ✓ 107A-107B. Electrical Measurements. (3-3) Yr.
Associate Professor KNUDSEN and Assistant Professor KINSEY
Prerequisite: Physics 10.
Lectures, student reports and laboratory work on direct and alternating measuring instruments, alternating circuits, filter circuits, and thermionics.
- ✓ 108A. Geometrical Optics. (3) II. Associate Professor DODD
Lectures, demonstrations and laboratory work on geometrical methods applied to the optics of mirrors, prisms and lenses.
- ✓ 108B. Physical Optics. (3) I. Assistant Professor KAPLAN
Lectures, demonstration and laboratory work dealing with diffraction, interference, polarization, and their applications.
- ✓ 110A-110B. Electricity and Magnetism. (3-3) Yr. Professor BARNETT
The elementary mathematical theory, with a limited number of experimental demonstrations.
- ✓ 112. Heat. (3) I. Associate Professor ADAMS
Kinetic theory and thermodynamics.
- ✓ 113. Introduction to Spectroscopy. (3) II. Assistant Professor ELLIS
Lectures and laboratory.
This course duplicates course 111 given prior to September, 1930.
- ✓ 114. Sound. (3) II. Associate Professor KNUDSEN
Lectures on theory and applications.
- ✓ 121. Modern Physics: Methods, Results and Interpretation. (3) II.
Associate Professor ADAMS
An introductory view of the nature, the constituents and the structure of atoms, as developed by the work of the last thirty years. Lectures, reading, reports, and demonstrations.

COURSE IN ANOTHER DEPARTMENT

Astrophysics. (See Mathematics: Astronomy 117.).

POLITICAL SCIENCE

†CLARENCE A. DYKSTRA, A.B., Professor of Political Science.

CHARLES GROVE HAINES, Ph.D., Professor of Political Science.

*MALBONE W. GRAHAM, Jr., Ph.D., Associate Professor of Political Science.

MARSHAL E. DIMOCK, Ph.D., Assistant Professor of Political Science.

ORDEAN ROCKEY, B.Litt., Assistant Professor of Political Science (Chairman).

CHARLES H. TITUS, Ph.D., Assistant Professor of Political Science.

_____, Assistant Professor of Political Science.

ALICE E. RYCKMAN, M.A., Associate in Political Science.

GEORGE W. ADAMS, Ph.B., J.D., Lecturer in Political Science.

HAROLD G. CALHOUN, A.B., 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 7.

Preparation for the Major.—Political Science 3A-3B, or its equivalent, and one of the following: Political Science 51A-51B, Political Science 52, Political Science 74, 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, geography, or jurisprudence. Major programs must include two year courses and be approved by the departmental adviser.

The Minor in Teachers College.—The preparation for the major, and in addition 6 units of elective credit in upper division political science.

LOWER DIVISION COURSES

✓3A-3B. American Government. (3-3) Beginning either half-year.

Assistant Professors ROCKEY, TITUS, DIMOCK, Mr. CALHOUN,
Mr. ADAMS, Miss RYCKMAN

A. A study of principles and problems in relation to the organization and functions of the American system of government.

B. 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.

This course supplants the former course 1A-1B, and is not open to students who took 1A-1B prior to September, 1928.

Political Science 3A is open to all students. Political Science 3B is open to students who have completed Political Science 3A.

Students who have credit for American Institutions 101 will receive only 2 units for Political Science 3A.

* In residence second half-year only, 1930-31.

† Absent on leave, 1930-31.

- ✓ 51A-51B. Introduction to European Governments. (3-3) Yr. M W F, 9, 11.
Associate Professor GRAHAM, Assistant Professor DIMOCK
Prerequisite: sophomore standing and Political Science 3A-3B.
A comparative study of the governments of Great Britain and the self-governing dominions, France, Germany, Italy, Switzerland, and Russia.
- ✓ 52. American Political Parties. (3) I. _____
Prerequisites: sophomore standing and Political Science 3A-3B.
American party history; federal and state party organizations; the electorate; nominations and elections; the direct primary; party control of the legislature; the President as party leader; theory of American party divisions; American public opinion; the rise of blocs.
74. American State and Local Government. (3) II. _____
Prerequisites: sophomore standing and Political Science 3A-3B.
3-3 Development of state constitutions. The legislative, executive, and judicial departments in state government; growth of popular methods of legislation; political reconstruction of state government. Special attention will be given to the organization and functions of state and local government of California.

UPPER DIVISION COURSES

Prerequisites: Political Science 3A-3B, or its equivalent, and one of the following: Political Science 51A-51B, Political Science 52, Political Science 74, Economics 1A-1B, Geography 1A-1B, History 4A-4B, History 5A-5B, or History 8A-8B.

- ✓ 110. Principles of Political Science. (3) Either half-year.
Assistant Professor TITUS
A survey of fundamental political concepts including the legal and theoretical bases of the modern state, the various forms of government, and an analysis of the functions of government.
- ✓ 111. The Nature of the State. (3) Either half-year.
Assistant Professors ROCKEY and TITUS
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.
- ✓ 113A-113B. American Political Theories. (2-2) Yr. Tu Th, 11.
Assistant Professor 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.
Political Science 113B is open to students who have completed 113A.

✓*125. Foreign Relations of the United States. (3) I.

Associate Professor GRAHAM

Leading American foreign policies as regards Europe, Latin America and the Far East; the administration of American foreign relations. American participation in international administrative and judicial agencies.

✓127. International Relations. (3) II. Associate Professor GRAHAM

Factors underlying international relations; the modern systems of states; alliances and the balance of power; diplomatic practice and problems; international, political, administrative, and judicial agencies; present tendencies in international organization and administration.

✓133. Introduction to International Law. (3) I. Professor HAINES

The general principles of international law as developed by custom and agreement, and as exhibited in decisions of international tribunals and municipal courts, in legislation, in the works of authoritative writers, and in the conduct of nations.

✓*154A. European Governments and Political Institutions. (2) I.

Associate Professor GRAHAM

✓154B. European Governments and Political Institutions. (3) II.

Associate Professor GRAHAM

An intensive study of the breakdown of the Russian empire and the creation and constitutional organization of the Succession States; special attention will be given to contemporary political issues, parties, elections, and foreign relations.

✓157A-157B. Constitutional Law. (3-3) Yr. Professor HAINES

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. M W F, 11.

Assistant Professor DIMOCK

History and growth of cities, forms of city government; the municipal councils and courts; the city and the state; the charter; recent reforms in municipal government; issues in municipal government to-day.

✓163. Municipal Administration. (3) II. —

Prerequisite: Political Science 162.

The mayor; the city departments; the city employees; the civil service; municipal functions.

✓164. Municipal Problems. (2) I. Tu Th, 10. —

Open only to seniors.

The regulation of public utilities and other metropolitan problems.

✓172. State and Local Administration. (3) Either half-year. —

Study of powers, functions, organization, and methods of the executive and administrative officers and commissions of the American states with special reference to the problems of centralization, departmental reorganization, and cooperation with federal and municipal agencies.

* Not to be given 1930-31.

✓ 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.

(A) A special study of problems in the field of public law.

Professor HAINES

(B) Students will undertake the special study of problems in one of the main fields of political science. The work will be done under the direction of the instructors to whose fields belong the problems selected for study.

The STAFF

AMERICAN INSTITUTIONS

✓ 101. American Institutions. (2) Either half-year. Tu Th, 8, 12.

Assistant Professor TITUS

The fundamental nature of the American constitutional system and of the ideals upon which it is based.

Required of all students during their junior or senior year except those who have completed Political Science 3A-3B (after September, 1926), or history majors who take 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 1 unit. A student who has credit for course 101 will receive only 2 units for course 3A.

JURISPRUDENCE

✓ 18A-18B. Commercial Law. (3-3) Yr. Mr. CALHOUN, Mr. ADAMS

Definitions and elementary principles of law; essentials of the law of contracts, agency, sales, partnership, negotiable instruments and private corporations.

✓ 117. Elements of Law. (3) II. Professor 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) II. Assistant Professor DIMOCK

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.

PSYCHOLOGY

SHEPHERD IVORY FRANZ, Ph.D., M.D., LL.D., Professor of Psychology (Chairman).

GRACE M. FERNALD, Ph.D., Associate Professor of Psychology.

*KATE GORDON, Ph.D., Associate Professor of Psychology.

S. CAROLYN FISHER, Ph.D., Assistant Professor of Psychology.

JOHN R. LIGGETT, Ph.D., Assistant Professor in Psychology.

ELLEN B. SULLIVAN, Ph.D., Assistant Professor of Psychology.

LAWRENCE GAHAGAN, Ph.D., Instructor in Psychology.

JOSEPH A. GENDERELLI, Ph.D., Instructor in Psychology.

AMERETTE G. EATON, A.B., Associate in Psychology.

JOHN D. LAYMAN, A.B., Associate in Psychology.

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 7.

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

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; Zoology 103; Education 103.

The Minor in Teachers College.—1A, 1B; 106A or 106B or 110, and 4-6 units of additional upper division work approved by the student's major department.

Laboratory Fees.—A fee of \$3 is required in courses 106A, 106B, 107A, 107B, 150. A fee of \$1 is required in course 110.

LOWER DIVISION COURSES

*X. The Psychology of Study. (1) Either half-year. Professor MOORE

1A-1B. General Psychology. (3-3) Beginning either half-year. ^{1B = SSEd. 5110}

Associate Professor GORDON, Assistant Professor FISHER and STAFF

Lectures, Tu Th, 10 (for those beginning in September); Tu Th, 1 (for those beginning in February); one hour quiz, and one hour demonstration.

Course 1A-1B is prerequisite to all courses in psychology. It is not open to freshmen, but is open to sophomores without prerequisite.

* In residence second half-year only, 1980-81.

* Not to be given, 1980-81.

The year sequence 1A-1B is required of all Teachers College students in their sophomore year.

An account of the development of consciousness and behavior, including reflex, instinctive, and emotional tendencies; conditioned reflex; learning and habit formation, sensation, perception, imagination, memory, reasoning, and volition. The second half-year is devoted to the more detailed treatment of special topics.

Lectures, readings, demonstrations, and laboratory exercises.

✓ 2. Applied Psychology. (2) Either half-year.

Prerequisite: Psychology 1A. Assistant Professor SULLIVAN

A discussion of psychological principles bearing on problems of daily life, and on legal, medical, and industrial problems.

Lectures, reading, demonstrations.

UPPER DIVISION COURSES

Psychology 1A-1B is prerequisite to all upper division courses.

✓ 106A-106B. Experimental Psychology. (3-3).

Professor FRANZ and Dr. GAHAGAN

106A, either half-year; 106B, second half-year only.

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 either half year. Assistant Professor SULLIVAN

First half-year: Statistical methods and their use in relation to psychological problems, including illustrations and problems from the field of education and experimental psychology and group mental tests.

Second half-year: 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. M W F, 10. Professor FRANZ

The physiological correlates of mental conditions, with special reference to the sensory, motor, and association processes of the cerebrum.

Lectures, reading, demonstrations, and discussions. Physiology 1, Zoology 1A, or Biology 1 is recommended as preparation, but is not required.

- ✓ 110. Educational Psychology (Experimental). (3) Either half-year.
 Dr. 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 lectures, three hours laboratory, outside reading.
- ✓ 112. Child Psychology. (3) Either half-year.
 Associate Professor FERNALD
 The psychology of the child, with special reference to the problem of mental development.
- ✓ 119. Psychology of Special School Subjects. (3) Either half-year.
 Associate Professor 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.
- ✓ 124. History of Psychology. (2) Either half-year.
 Associate Professor GORDON
 Prerequisite: six upper division units in psychology.
 Psychology in ancient, medieval, and modern times, with special reference to developments in the 19th and 20th centuries.
- ✓ 132. Contemporary Psychology. (2) Either half-year. Dr. GAHAGAN
 Prerequisite: six upper division units in psychology.
 A study of present day psychology in theory, backgrounds, and results.
- ✓ 133. Advanced General Psychology. (2) II.
 Associate Professor GORDON and the STAFF
 Prerequisite: six upper division units in psychology.
 The consideration of current theories of mind-body relations; consciousness; behaviorism; Gestalt, etc.
- ✓ 145A-145B. Social Psychology. (2-2) Yr. Assistant Professor FISHER
 First half-year: The instinctive and the higher mental processes that are the basis of social life; the behavior of men in groups.
 Second half-year: Adjustment and maladjustment. Race, intelligence, and psychic stability as factors in national unity.
 Lectures, reading, discussions, and clinical demonstrations.
- ✓ 150. Animal Psychology. (3) I. Assistant Professor LIGGETT
 Prerequisite: Biology 1 or the equivalent.
 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.

Professor FRANZ, Associate Professor FERNALD

One lecture and three hours 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 is given.

Lectures, reading, clinical demonstrations, testing, and training of special cases.

✓168. Abnormal Psychology. (3) II

Professor FRANZ

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) Either half-year.

Professor FRANZ and the STAFF

Prerequisite: Psychology 106A, 107A, and one of the following courses: 108, 110, 112, 145A, 150, 166A, or 168. Special permission to register for this course is required.

In this course students will undertake the special 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.

SPANISH

CÉSAR BARJA, Doctor en Derecho, Professor of Spanish.

S. L. MILLARD ROSENBERG, Ph.D., Professor of Spanish.

LAURENCE DEANE BAILIFF, Ph.D., Associate Professor of Spanish (Chairman).

MANUEL PEDRO GONZÁLEZ, Ph.D., Assistant Professor of Spanish.

ANNA KRAUSE, Ph.D., Assistant Professor of Spanish.

¹ERNEST H. TEMPLIN, Ph.D., Assistant Professor of Spanish.

—————, Instructor in Spanish.

FRANCISCO MONTAU, A.B., Associate in Spanish.

SYLVIA N. RYAN, M.A., Associate in Spanish.

CONSUELO PASTOR, A.B., Assistant in Spanish.

MARÍA LÓPEZ DE LOWTHER, M.A., Lecturer in Spanish.

Letters and Science List.—All undergraduate courses in Spanish except 190 are included in the Letters and Science List of Courses. For regulations governing this list, see page 7.

Preparation for the Major.—(1) Spanish A, B, C, D, or four years of high school Spanish, or other equivalent to be tested by examination. (2) A minimum of two years of Latin in the high school. (3) Only students who pronounce correctly and read fluently will be admitted to upper division courses. Transfers from other institutions will be tested by oral examinations. (4) English 1A-1B or the equivalent.

The Major.—Required: Spanish 106A-106B and 107A-107B. The remaining 12 units may include not more than 6 units of upper division work in either French or Latin, or may be completed from 101, 103, 104, 105, 108, and 110.

The department recommends supplementary choice of electives from the following: (1) history of the country or countries most intimately connected with the major; (2) additional study in Latin literature; (3) related courses in other literatures; (4) courses dealing with English expression; (5) the history of philosophy; (6) German; (7) Greek.

The Minor in Teachers College.—A, B, C, D, or the equivalent; 101A, 101B.

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. No credit will be given for duplication of high school work.

¹ In residence first half-year only, 1980-81.

✓ A. Elementary Spanish. (5) Either half-year.

Assistant Professor KRAUSE in charge

M Tu W Th F, 8, 9, 10, 12.

This course corresponds to the first two years of high school Spanish. It may not be taken for credit by students who have credit for two years of high school Spanish.

✓ *A². Elementary Spanish. (3) I.

Open only to students who have had one year of high school Spanish or the equivalent. Not open for credit to students who have credit for two years of high school Spanish.

✓ B. Elementary Spanish. Continuation of A or A². (5) Either half-year.

Assistant Professor KRAUSE in charge

M Tu W Th F, 8, 9, 10, 11, 12, 2.

Prerequisite: course A or A² or two years of high school Spanish or Spanish SA in a summer session with satisfactory grade.

Not open for credit to students who have credit for three years of high school Spanish.

✓ C. Intermediate Spanish. Continuation of B. (3) Either half-year.

M W F, 8, 10, 12, 3. Assistant Professor KRAUSE in charge

Prerequisite: course B or three years of high school Spanish or the equivalent.

Not open for credit to students who have credit for four years of high school Spanish.

✓ D. Intermediate Spanish. Continuation of C. (3) Either half-year.

M W F, 8, 11, 2, 3. Assistant Professor KRAUSE in charge

Prerequisite: course C or four years of high school Spanish or the equivalent.

✓ CD. Intermediate Spanish. Continuation of B. (5) I.

M Tu W Th F, 11. Assistant Professor KRAUSE

Prerequisite: course B or three years of high school Spanish or the equivalent.

Not open for full credit to students who have credit for four years of high school Spanish.

✓ 19. Dramatic Interpretation in Spanish. (2) II.

M W F, 3, 4. Associate Professor BAILIFF

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 first 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.

- ✓ 50A-50B. Conversation and Composition. (3-3) Yr.
 M W F, 9, 2. Assistant Professor **TEMPLIN**, Mrs. **LOWTHER**
 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.
- ✓ 55. Grammar Review, Composition, Reading. (5) Either half-year.
 M Tu W Th F, 11. Miss **RYAN**
 Prerequisite: same as for course 50A-50B.

UPPER DIVISION COURSES

Prerequisite: 16 units of lower division Spanish or the equivalent.

Major students who enter the upper division without course 50A-50B
 or 55 must take 101A-101B; those who have had course 50A-50B or 55
 should take 106A-106B in their senior year.

- ✓ 101A-101B. Conversation and Composition. (3-3) Yr.
 Associate Professor **BAILLIFF**, Assistant Professor **TEMPLIN**
 M W F, 8, 12.
- ✓ 103A-103B. Eighteenth and Nineteenth Century Literature. (3-3) Yr.
 Professor **ROSENBERG**, Associate Professor **BAILLIFF**
 M W F, 9, 2.
 Introduction to the eighteenth century followed by a survey of
 literature to 1890. Lectures and reading.
- ✓ *104A-104B. Spanish American Literature. (3-3) Yr. Mrs. **LOWTHER**
 A study of the principal authors of Spanish America. Lectures and
 reading.
- ✓ 105A-105B. Modern Drama. (2-2) Yr. Professor **ROSENBERG**
 Tu Th, 2.
 Plays of the nineteenth and twentieth centuries. Lectures, discus-
 sions and reports.

PRIMARILY FOR SENIORS

- ✓ 106A-106B. Advanced Composition. (2-2) Yr.
 M W, 11; Tu Th, 10. Assistant Professor **KRAUSE**, Mrs. **LOWTHER**
 Open to seniors whose major is Spanish.
- ✓ 107A-107B. Survey of Spanish Literature to 1700. (3-3) Yr.
 M W F, 10. Professor **BARJA**
 Prerequisite: 103A-103B and at least 4 units to be chosen from
 105A-105B, 108A-108B, or 110A-110B or their equivalents.

* Not to be given 1930-31; probably given 1931-32.

✓ 108A-108B. Spanish Literature from 1870 to 1900. (3-3) Yr.
 M W F, 9. Assistant Professor GONZÁLEZ
 Study of masterpieces and reports on outside reading.

✓ 110A-110B. Modern Prose (2-2) Yr. Professor BARJA
 Tu Th, 11.
 Rapid reading of contemporary writers.

140A-140B. Survey of Spanish Civilization. (2-2) Yr. Tu Th, 11.
 Professor BARJA, Mr. MONTAU

Prerequisite: junior standing.

Historical background of Spain and Latin American countries;
 art, culture, sociological and economic conditions.

A. Spain.

B. Latin-America.

Lectures and reports. Conducted in English.

✓ 190. The Teaching of Spanish. (2) Either half-year.
 Tu Th, 1. Professor ROSENBERG

SUBJECT A: ENGLISH COMPOSITION

MARGARET S. CARHART, Ph.D., Assistant Professor of English, Chairman
of Committee on Subject A.

SELENA P. INGRAM, M.A., Associate in Subject A.

THOMAS E. THOMPSON, A.B., Associate in Subject A.

Fee.—A fee of \$10 is required for the course in Subject A.

✓ Subject A. No credit. Either half-year.

The STAFF

Three hours weekly for twelve weeks. Although this course yields no credit, it displaces 2 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 the Circular of Information.

Training in correct writing, including drill in sentence and paragraph construction, diction, punctuation, grammar, and spelling. Weekly compositions and written tests on the text.

TRAINING DEPARTMENT**STAFF IN UNIVERSITY OF CALIFORNIA AT LOS ANGELES
TRAINING DEPARTMENT**

- CHARLES W. WADDELL, Ph.D., Director of the Training Department and Professor of Education.
- ETHEL I. SALISBURY, M.A., Supervisor of Training and Associate Professor of Elementary Education.
- CORINNE A. SEEDS, M.A., Principal of the University Elementary School and Assistant Professor of Elementary Education.
- JESSE A. BOND, M.A., Supervisor of Training, Junior High School.
- BERTHA E. WELLS, Supervisor of Training, Elementary.
- FRANCES GIDDINGS, M.A., Supervisor of Training and Instructor in Kindergarten-Primary Education.
- HELEN B. KELLER, Ed.B., Supervisor of Training, Elementary.
- FLORENCE MARY HALLAM, A.B., Supervisor of Training, Home Economics.
- HELEN CHUTE DILL, A.B., Supervisor of Training, Music.
- LAVERNA L. LOSSING, A.B., Supervisor of Training, Music.
- NATALIE WHITE, M.A., Supervisor of Training, Art.
- LULU M. STEDMAN, Ed.B., Supervisor of Special Education.
- BARBARA GREENWOOD, Supervisor of Nursery School Training, and Associate in Kindergarten-Primary Education.
- ELIZABETH BRUENE, M.A., School Counselor.
- EMMA JANE ROBINSON, Training Teacher, Sixth Grade.
- HELEN F. BOUTON, Ed.B., Training Teacher, Fifth Grade.
- BESSIE WINSTON HOYT, Ph.B., Training Teacher, Fourth Grade.
- GERTRUDE C. MALONEY, Ed.B., Training Teacher, Third Grade.
- EDITH HOPE RINGER, Training Teacher, Second Grade.
- CLAYTON BURROW, B.S., Training Teacher, First Grade.
- JANE BERNHARDT, M.A., Training Teacher, Kindergarten.
- EVA SCANTLEBURY, M.A., Training Teacher, Nursery School.
- MARGARET DAWSON, Ed.B., Assistant, Kindergarten.
- MARION WALLACE, Ed.B., Training Teacher, Nursery School.
- MARTHA TUESBURG, Assistant, Nursery School.

STAFF IN CITY TRAINING SCHOOLS

- EDNA LEE ROOF, B.L., Supervisor of Training, Physical Education.
- J. SAMUEL LACY, Ed.B., Principal, Dayton Heights School.
- NETTIE DAGLEY ESKEY, A.B., Principal, Lockwood School.
- M. W. CHANDLER, A.B., Principal, LeConte Junior High School.

- ANGUS L. CAVANAGH, A.B., Principal, University High School, Sawtelle.
RALPH WADSWORTH, M.A., Principal, Beverly Hills High School.
GENEVIEVE HANSON ANDERSON, Training Teacher, Kindergarten, Rosemont Avenue School.
HEBETHA PIBLEMEIER, Training Teacher, Kindergarten, Lockwood School.
MARJORIE M. WARREN, Training Teacher, Kindergarten, Brentwood School.
LILLIAN MARSH MORRIS, Training Teacher, Kindergarten, Melrose Avenue School.
ROWENA DEMING FICK, Training Teacher, Primary Opportunity, Rosewood Avenue School.
ALICE B. HILL, Training Teacher, First Grade, Dayton Heights School.
S. EDNA WILLIAMS, Training Teacher, First Grade, Dayton Heights School.
KATHERINE BODURTHA, Training Teacher, First Grade, Lockwood School.
GRACE KREBS, Training Teacher, First Grade, Lockwood School.
ESTELLA THOMPSON, Training Teacher, Second Grade, Dayton Heights School.
ALMA LOUISE EGERER, Training Teacher, Second Grade, Dayton Heights School.
MILDRED U. FRAZEE, Training Teacher, Second Grade, Lockwood School.
HELEN ODEN, Training Teacher, Second Grade, Lockwood School.
LELA FRANCES BAILEY, A.B., Training Teacher, Third Grade, Dayton Heights School.
GERTRUDE A. MARTIN, Training Teacher, Third Grade, Dayton Heights School.
RUTH SWANHOLM, Training Teacher, Fourth Grade, Dayton Heights School.
GETRUDE ALLISON, Training Teacher, Fourth Grade, Lockwood School.
MILDRED POUNDSTONE, Ed.B., Training Teacher, Fourth Grade, Lockwood School.
RUBY M. OFFUTT WHEELER, Training Teacher, Fourth Grade, Holmes Avenue School.
SYBIL WHITWORTH, Training Teacher, Fifth Grade, Dayton Heights School.
PAULINE GAYNOR MIGALA, Ed.B., Training Teacher, Fifth Grade, Lockwood School.
ESTHER ALMQUIST, Training Teacher, Fifth Grade, Lockwood School.
RUTH BAUGH MYERS, Training Teacher, Sixth Grade, Dayton Heights School.
MARY THOMSON, Training Teacher, Sixth Grade, Lockwood School.
PAULINE I. SLATER, Training Teacher, Sixth Grade, Holmes Avenue School.
EUNICE GENE COLLETTE, Training Teacher, Remedial Reading, Lockwood School.
FANNIE E. SPLATY, A.B., Training Teacher, English, LeConte Junior High School.
GRACE W. HOGOBOOM, A.B., Training Teacher, English, LeConte Junior High School.
DOBOOTHY P. JENKINS, A.B., Training Teacher, English, LeConte Junior High School.

- FERN R. SMITH, Ph.B., Training Teacher, English, LeConte Junior High School.
- ORA M. JOHNSON, Training Teacher, English, University High School, Sawtelle.
- ZETHA MUDGETT, A.B., Training Teacher, English, University High School, Sawtelle.
- ADDIE WOODALL, A.B., Training Teacher, English, University High School, Sawtelle.
- GRACE BARNES, A.B., Training Teacher, English, Beverly Hills High School.
- MARJORIE MACDONALD, A.B., Training Teacher, English, Beverly Hills High School.
- NORABELLE DAVIDSON, A.M., Training Teacher, History, LeConte Junior High School.
- FERN R. JONES, A.B., Training Teacher, History, LeConte Junior High School.
- EFFIE LITTLEFIELD, B.S., Training Teacher, History, LeConte Junior High School.
- PAULINE A. VORACHEK, A.B., Training Teacher, History, LeConte Junior High School.
- CECELIA IRVINE, M.A., Training Teacher, History, University High School, Sawtelle.
- HELEN JOHNSTON, A.B., Training Teacher, History, University High School, Sawtelle.
- VERA MILLAR, A.B., Training Teacher, History, University High School, Sawtelle.
- NELLIE MAY INGOLDSBY, A.B., Training Teacher, History, University High School, Sawtelle.
- GRACE REDFORD, Ph.B., Training Teacher, History, University High School, Sawtelle.
- HELEN DARSIE, M.A., Training Teacher, History, Beverly Hills High School.
- MARY H. HELMS, M.A., Training Teacher, History, Beverly Hills High School.
- ALICE KRAMER, A.B., Training Teacher, History, Beverly Hills High School.
- PORTIA RILEY, A.B., Training Teacher, History, Beverly Hills High School.
- MARY G. MILLER, M.S., Training Teacher, Mathematics, University High School, Sawtelle.
- INA THOBORG, A.B., Training Teacher, Mathematics, Beverly Hills High School.
- STEPHANIE A. BERTHOT, M.A., Training Teacher, Mathematics, Beverly Hills High School.
- JENNIE DAVIDSON, A.B., Training Teacher, Mathematics, Beverly Hills High School.
- KATHERINE KENT, A.B., Training Teacher, Spanish, University High School, Sawtelle.
- MARTIN BREDBERG, M.A., Training Teacher, Spanish, Beverly Hills High School.

- BERYL MUNSELLE, A.B., Training Teacher, Spanish, Beverly Hills High School.
- DAISY NEWBY, M.L., Training Teacher, Spanish, Beverly Hills High School
- ANNE E. EDWARDS, A.B., Training Teacher, Latin, Beverly Hills High School.
- JOHN C. ARNOLD, M.A., Training Teacher, Science, University High School, Sawtelle.
- GRACE C. HAYNES, Ed.B., Training Teacher, Art, Burroughs Junior High School.
- ELLA STAHER, Training Teacher, Art, Sentous Junior High School.
- LUCY JACK, Training Teacher, Art, University High School, Sawtelle.
- RUTH BERGHER, Training Teacher, Art, San Fernando High School.
- JOSEPHINE SEAMAN-ROBERTS, Training Teacher, Art, Santa Monica High School.
- MILDRED HARTZIG, Training Teacher, Art, Santa Monica High School.
- JUNIE HAMBLETT, Training Teacher, Art, John Adams Junior High, Santa Monica.
- LUCILE P. SHEPARD, Training Teacher, Art, John Adams Junior High, Santa Monica.
- SADA HOUSE, Training Teacher, Art, Lincoln Junior High, Santa Monica.
- EDNA CASE, Training Teacher, Commerce, LeConte Junior High School.
- FRANKYE BLACKMAN, Training Teacher, Commerce, LeConte Junior High School.
- MARGARET TRITT, Ed.B., Training Teacher, Commerce, King Junior High School.
- MAUD L. AUSTIN, Training Teacher, Commerce, Manual Arts High School.
- ATTYE A. GRIFFIN, Training Teacher, Commerce, Polytechnic High School.
- CLARA MCNEAL, Training Teacher, Commerce, Van Nuys High School.
- M. DELPHINE TUBMAN, Training Teacher, Commerce, Beverly Hills High School.
- MILDRED L. DAVIDSON, Training Teacher, Commerce, Beverly Hills High School.
- MARGARET E. KEEFE, Training Teacher, Commerce, University High School, Sawtelle.
- ROSE FOUNTAIN, Training Teacher, Commerce, University High School, Sawtelle.
- FERN M. BOUCK ELMORE, Ed.B., Training Teacher, Commerce, University High School, Sawtelle.
- HARRY M. HOWELL, Training Teacher, Commerce, University High School, Sawtelle.
- HELEN LINKINS, Training Teacher, Home Economics, Alexandria Ave. School.
- DOROTHY NOBLES, Training Teacher, Home Economics, Lockwood School.
- EUGENIA McCLUER, Training Teacher, Home Economics, Los Feliz School.
- MAY CONNOLLY, Training Teacher, Home Economics, Vine Street School.
- FLORENCE ALVAREZ, Training Teacher, Home Economics, King Junior High School.

- MABEL CRUZAN, B.S., Training Teacher, Home Economics, Mt. Vernon Junior High.
- FRANCES BRANDRIFF, A.B., Training Teacher, Home Economics, Mt. Vernon Junior High.
- DULCIE DONOVAN, Training Teacher, Home Economics, Beverly Hills High School.
- GEORGE COURTNEY, Training Teacher, Mechanic Arts, LeConte Junior High School.
- HOWARD ALLEN, Training Teacher, Mechanic Arts, Franklin High School.
- GEORGE A. McDERMOTT, Training Teacher, Mechanic Arts, University High School, Sawtelle.
- ORVILLE R. FISHER, Training Teacher, Mechanic Arts, University High School, Sawtelle.
- MARY BOLAND, Training Teacher, Music, Beverly Vista School.
- MAE NIGHTINGALE, Training Teacher, Music, LeConte Junior High School.
- FLORENCE BOHANNAN, Training Teacher, Music, LeConte Junior High School.
- LEO MARK COOMBS, Training Teacher, Music, Beverly Hills High School.
- WM. C. HARTSHORN, Training Teacher, Music, Beverly Hills High School.
- EVELYN S. GUERNSEY, Training Teacher, Music, Beverly Hills High School.
- ABRAHAM LOBER, Training Teacher, Physical Education, King Junior High School.
- MERRELL M. BAILEY, Training Teacher, Physical Education, Hollywood High School.
- GEORGE TISCHNER, Training Teacher, Physical Education, Adams Junior High, Santa Monica.
- DON BROWN, Training Teacher, Physical Education, Adams Junior High, Santa Monica.
- ELSIE LISCOM, Training Teacher, Physical Education, Beverly Vista School.
- DOROTHY FOX, Training Teacher, Physical Education, Beverly Vista School.
- FLOYD MISCHLER, Training Teacher, Physical Education, Santa Monica High School.
- RHEA FEATHERSTON, Training Teacher, Physical Education, Santa Monica High School.
- EDNA MARSDEN, Training Teacher, Physical Education, Marlborough School.
- RUTH P. DALY, Training Teacher, Physical Education, LeConte Junior High School.
- ERDINE ROBINSON, Training Teacher, Physical Education, Burroughs Junior High School.
- JANET PATEY, Training Teacher, Physical Education, Hawthorne School, Beverly Hills.
- JULIA DARROW, Training Teacher, Physical Education, El Rodeo School, Beverly Hills.
- ALLENE ROWAN, Training Teacher, Physical Education, Fairfax High School.

LAURA LEE DELANEY, Training Teacher, Physical Education, Fairfax High School.

HELEN K. GREENING, Training Teacher, Physical Education, Fairfax High School.

BETSY T. FRICKE, Training Teacher, Physical Education, Fairfax High School.

MARY K. CARROL, Training Teacher, Physical Education, Santa Monica High School.

PRACTICE TEACHING

Prerequisite:

1. At least senior standing.
2. Satisfactory scholarship (freedom from probation).
3. Education courses as specified by the respective departments.

Courses:*

- K190A. Kindergarten-Primary Teaching. (5)
- K190B. Kindergarten-Primary Teaching. (5)
- E190A. Elementary Teaching. (5)
- E190B. Elementary Teaching. (5)
- J191A. Junior High School Teaching. (5)
- J191B. Junior High School Teaching. (5)
- A190. Elementary Art Teaching. (3)
- A191. Junior High School Art Teaching. (3)
- A192. Secondary Art Teaching. (4)
- C192A. Secondary Commerce Teaching. (5)
- C192B. Secondary Commerce Teaching. (5)
- H190A. Elementary Home Economics Teaching. (2)
- H190B. Elementary Home Economics Teaching. (2)
- H191. Junior High School Home Economics Teaching. (2)
- H192A. Secondary Home Economics Teaching. (2)
- H192B. Secondary Home Economics Teaching. (2)
- MA191. Secondary Mechanic Arts Teaching. (3)
- MA192A. Secondary Mechanic Arts Teaching. (3)
- MA192B. Secondary Mechanic Arts Teaching. (3)
- M190A. Elementary Music Teaching. (3)
- M190B. Elementary Music Teaching. (2)
- M191. Junior High School Music Teaching. (2)
- M192. Secondary Music Teaching. (3)
- P190A. Elementary Physical Education Teaching. (2)
- P190B. Elementary Physical Education Teaching. (3)
- P191. Junior High School Physical Education Teaching. (3)
- P192A. Secondary Physical Education Teaching. (3)
- P192B. Secondary Physical Education Teaching. (2)

* All courses offered either half-year.

ELECTIVE TEACHING

When elective teaching is taken it is to be designated as Teaching 195, preceded by the letter indicating the proper department and followed by a dash and the number of units.

STAFF IN ALEXANDRIA AVENUE OBSERVATION SCHOOL

ETHEL I. SALISBURY, M.A., Supervisor of Training and Associate Professor of Elementary Education.

JESSIE M. FRASER, Principal.

MARY K. ADAMS, Kindergarten.

RUTH V. ANGELO, First Grade.

MARY LINDSEY, Second Grade.

JEAN H. DUKELOW, Third Grade.

NELVA C. POOR, Fourth Grade.

EVA DANIELSON, Fifth Grade.

MILDRED S. L. HAYES, Sixth Grade.

THE TRAINING SCHOOLS

Practice teaching is provided for all Teachers College students in (1) the University Elementary School, comprising a nursery school, kindergarten, and the elementary grades; (2) the Lockwood and Dayton Heights elementary schools of Los Angeles city; (3) the LeConte Junior High School; (4) other elementary, junior, and senior high schools of Los Angeles.

The work is done under the direction of the Director of Training Schools and a corps of supervisors and training teachers.

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The Announcement of the Curriculum in Social Service.

The Announcement of the School of Librarianship.

The Annual Announcement of the Los Angeles Medical Department.

The Catalogue of Officers and Students, Section I (Berkeley departments).
Published in September and February. Price, 30 cents.

The Catalogue of Officers and Students, Section II (University of California
at Los Angeles). Published annually in October. Price, 25 cents.

The Annual Announcement of the California College of Pharmacy, San
Francisco.

The President's Annual Report.

The Annual Register. Price, \$1.00.

The Announcement of the Summer Sessions, Berkeley.

The Announcement of the Summer Session, Los Angeles (405 Hilgard
Avenue).

A circular containing detailed information concerning the scientific
publications of the University, with prices, will be sent on application to
the Manager of the University of California Press. The separate numbers
of the several series appear at irregular intervals, making, however,
uniform volumes.