

University of California Bulletin

THIRD SERIES. Vol. XXVI, No. 4

CIRCULAR OF INFORMATION

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

SEPTEMBER, 1932

**UNIVERSITY OF CALIFORNIA PRESS
BERKELEY, CALIFORNIA.**

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Administrative Bulletins of the University of California

1932-33. No. 4

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, in the Teachers College, and in the Branch of the College of Agriculture in Southern California; 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, Los Angeles, 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.

(Continued on third page of cover)

UNIVERSITY OF CALIFORNIA

CIRCULAR OF INFORMATION

**UNIVERSITY OF CALIFORNIA
AT LOS ANGELES**

SEPTEMBER, 1932

**UNIVERSITY OF CALIFORNIA PRESS
BERKELEY, CALIFORNIA**

UNIVERSITY OF CALIFORNIA BULLETIN

A SERIES IN THE ADMINISTRATIVE BULLETINS OF THE UNIVERSITY OF CALIFORNIA. ENTERED JULY 1, 1911, AT THE POST OFFICE AT BERKELEY, CALIFORNIA, AS SECOND-CLASS MATTER, UNDER THE ACT OF CONGRESS OF JULY 16, 1894. ISSUED MONTHLY FROM 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.*

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 *Recorder, University of California at Los Angeles*, or 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.

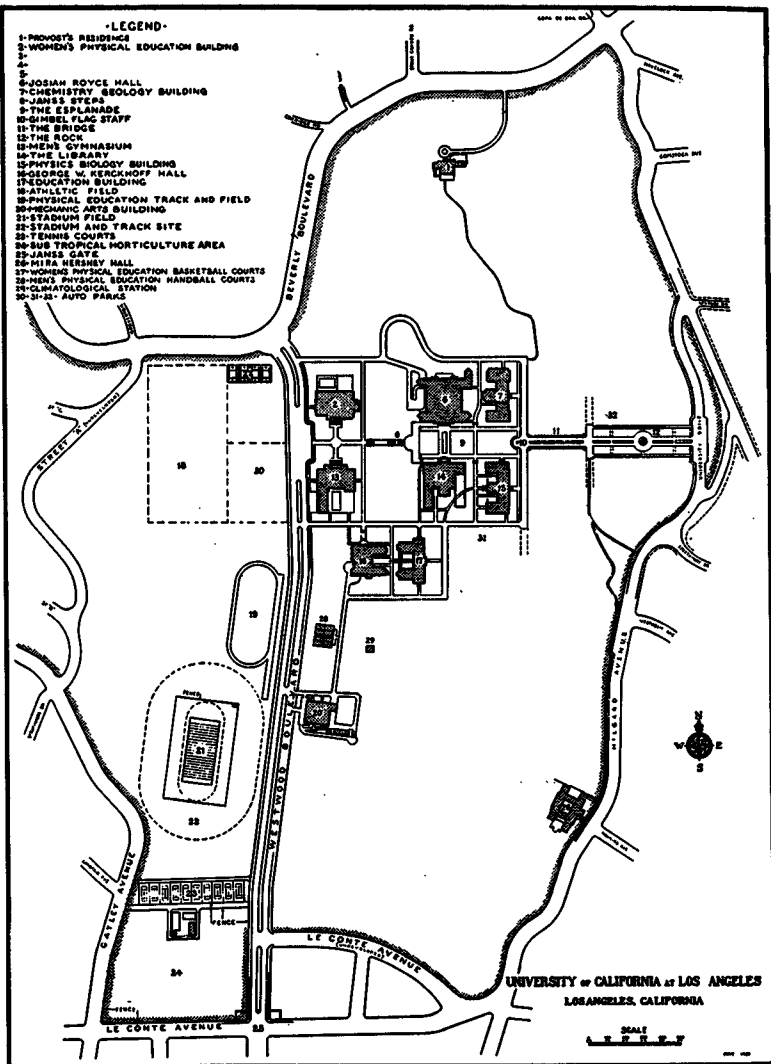
In writing for information please mention the college, department, or study in which you are chiefly interested.

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 *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 and Culver City*, William Thompson Transportation Co. bus via Motor Ave.

•LEGEND•

- 1-PROVOST'S RESIDENCE
- 2-WOMEN'S PHYSICAL EDUCATION BUILDING
- 3-
- 4-
- 5-JOSHUA ROYCE HALL
- 6-CHEMISTRY BIOLOGY BUILDING
- 7-JAMES STEPS
- 8-THE ESPLANADE
- 9-SIMBEL FLAG STAFF
- 10-THE BRIDGE
- 11-THE ROCK
- 12-MEN'S GYMNASIUM
- 13-PHYSICS BIOLOGY BUILDING
- 14-GEORGE W. KERCKHOFF HALL
- 15-EDUCATION BUILDING
- 16-ATHLETIC FIELD
- 17-PHYSICAL EDUCATION TRACK AND FIELD
- 18-MORGAN ARTS BUILDING
- 19-STADIUM FIELD
- 20-STADIUM AND TRACK SITE
- 21-TENNIS COURTS
- 22-SUB TROPICAL HORTICULTURE AREA
- 23-JAMES GATE
- 24-MIRA HERSHEY HALL
- 25-WOMEN'S PHYSICAL EDUCATION BASKETBALL COURTS
- 26-MEN'S PHYSICAL EDUCATION HANDBALL COURTS
- 27-CLIMATOLOGICAL STATION
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UNIVERSITY OF CALIFORNIA AT LOS ANGELES

CALENDAR 1932-33

1932

June 3-June 13, incl.	Final examinations, second half-year, 1931-32.
June 17, Friday	The thirteenth annual commencement at Los Angeles.
June 20-July 16	Summer Course in Surveying.
June 27-Aug. 6	Summer Session in Los Angeles.
Sept. 13, Tuesday	Applications for admission in September, 1932, with complete credentials, should be filed on or before this date.* Late filing fee, \$2.00, payable at registration.
Sept. 21, Wednesday	{8:30 a.m., Examination in Subject A. {1:30 p.m., Intelligence Test (Teachers College).
Sept. 22, Thursday	Consultation with advisers by new students; physical examinations.
Sept. 23, Friday	Registration of old students and re-entrants: 8:00 a.m.- 9:30 a.m., initials A-E; 9:30 a.m.-11:00 a.m., initials F-K; 12:00 m.-1:30 p.m., initials L-Q; 1:30 p.m.-3:00 p.m., initials R-Z; 3:00 p.m.-4:00 p.m., all initials.
Sept. 24, Saturday	Registration of new students: 8:00 a.m.- 9:30 a.m., initials A-L; 9:30 a.m.-11:00 a.m., initials M-Z. Registration of any student, old or new, 11:00 a.m.-1:00 p.m.
Sept. 26, Monday	Instruction begins.
Oct. 1, Saturday	Special examination in Subject A.
Oct. 3, Monday	Last day to file registration books or to change study-lists without fee.
Oct. 5, Wednesday	Instruction in Subject A begins.
Oct. 14, Friday	Last day to add courses to study-lists.
Oct. 21, Friday	Last day to drop courses from study-lists without penalty of grade F (failure).
Nov. 11, Friday	Armistice Day.
Nov. 19, Saturday	End of mid-term period.
Nov. 23-26, incl.	Thanksgiving recess.
Dec. 10, Saturday	Last day to file without fee applications for supervised teaching.
Dec. 14, Wednesday	Christmas recess begins.

1933

Jan. 3, Tuesday	Christmas recess ends.
Jan. 21, Saturday	Final examination in Subject A.

* *Importance of early application:* To give time for necessary correspondence applications and credentials should be forwarded to the Office of Admissions as soon as obtainable from the school authorities, preferably immediately upon the completion of work.

Calendar

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Feb. 9-Feb. 18, incl.	Final examinations, first half-year, 1932-33.
Feb. 18, Saturday	Last day of first half-year, 1932-33.
Feb. 18, Saturday	Applications for admission in February, 1933, with complete credentials, should be filed on or before this date.* Late filing fee, \$2.00, payable at registration.
Feb. 21, Tuesday	{8:30 a.m., Examination in Subject A. {1:30 p.m., Intelligence Test (Teachers College).
Feb. 23, Thursday	Consultation with advisers by new students; physical examinations.
Feb. 24, Friday	Registration of old students and re-entrants: 8:00 a.m.- 9:30 a.m., initials L-Q; 9:30 a.m.-11:00 a.m., initials R-Z; 12:00 m.-1:30 p.m., initials A-E; 1:30 p.m.-3:00 p.m., initials F-K; 3:00 p.m.-4:00 p.m., all initials.
Feb. 25, Saturday	Registration of new students: 8:00 a.m. to 12:00 m. Registration of old students and re-entrants, all initials, 9:30 a.m. to 12:00 m.
Feb. 27, Monday	Instruction begins.
Mar. 4, Saturday	Special examination in Subject A.
Mar. 6, Monday	Last day to file registration books or to change study-lists without fee.
Mar. 8, Wednesday	Instruction in Subject A begins.
Mar. 17, Friday	Last day to add courses to study-lists.
Mar. 23, Thursday	Charter Day.
Mar. 24, Friday	Last day to drop courses from study-lists without penalty of grade F (failure).
Mar. 25, Saturday	Last day to file applications for scholarships for the academic year 1933-34.
April 22, Saturday	End of mid-term period.
Apr. 27-Apr. 30, incl.	Spring recess.
May 6, Saturday	Last day to file without fee applications for supervised teaching.
May 30, Tuesday	Memorial Day (a holiday).
June 3, Saturday	Final examination in Subject A.
June 16-June 26, incl.	Final examinations, second half-year, 1932-33.
June 28-July 25, incl.**	Summer Course in Surveying.
June 28-Aug. 8, incl.**	Summer Session in Los Angeles.
June 30, Friday	The fourteenth annual commencement at Los Angeles.

For the calendar of the departments of the University at Berkeley, address the Recorder of the Faculties, University of California, Berkeley.

* Importance of early application: To give time for necessary correspondence applications and credentials should be forwarded to the Office of Admissions as soon as obtainable from the school authorities, preferably immediately upon the completion of work.

** Subject to change.

THE REGENTS OF THE UNIVERSITY

The regular meetings of the Board of Regents are held at 2 p.m. on the second Tuesday of each month, excepting in March, May, June, and July. The March meeting is held the day preceding Charter Day, March 23, the May meeting is held the day preceding Commencement, and the June meeting is held the day preceding Commencement in Los Angeles. The meetings are held at such places as may from time to time be determined, but ordinarily at the Governor's Office, State Building, San Francisco. The July meeting is usually omitted. Ordinarily committees meet at 901 Crocker Building, San Francisco. The Los Angeles office of the Regents is Room 704, Subway Terminal Building.

REGENTS EX OFFICIO

His Excellency JAMES ROLPH, JR., A.B.
Governor of California and President of
the Regents
Sacramento

FRANK F. MERRIAM, B.S.
Lieutenant-Governor of California
531 East Sixteenth st, Long Beach

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Speaker of the Assembly
Financial Center bldg., San Francisco

VIERLING KERSEY, M.A., LL.D.,
State Superintendent of Public Instruction
Mull bldg., Sacramento

A. BLANCHARD MILLER
President of the State Board of Agriculture
Fontana

JOSEPH MOORE CUMMING
President of the Mechanics Institute
85 Post st, San Francisco

WARREN OLNEY, JR., A.B., LL.B., LL.D.
President of the California Alumni Association
Balfour bldg., San Francisco

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.

GARRET WILLIAM McENERNEY (1936)
2002 Hobart bldg., San Francisco

GUY CHAFFEE EARL, A.B. (1934)
304 Standard Oil bldg., San Francisco

WILLIAM HENRY CROCKER, Ph.B. (1940)
Crocker First National Bank, San Francisco

JAMES KENNEDY MOFFITT, B.S. (1940)
41 First st, San Francisco

CHARLES ADOLPH RAMM, B.S. (1944)
1100 Franklin st, San Francisco

EDWARD AUGUSTUS DICKSON, B.L. (1942)
425 S Windsor Blvd, Los Angeles

JAMES MILLS (1942)
2711 Claremont Blvd, Berkeley

CHESTER HARVEY ROWELL, Ph.B., LL.D.
(1936)
149 Tamalpais rd, Berkeley

MORTIMER FLEISHHACKER (1934)
Anglo-California Trust Company, San Francisco

GEORGE I. COCHRAN, LL.D. (1946)
501 West Sixth st, Los Angeles

MRS. MARGARET RISHEL SARTORI (1938)
725 W Twenty-eighth st, Los Angeles

JOHN RANDOLPH HAYNES, Ph.D., M.D.
(1938)
429 Consolidated bldg., Los Angeles

JOHN FRANCIS NEVIAN (1944)
Crocker First National Bank bldg., San Francisco

CHARLES COLLINS TEAGUE, LL.D. (1946)
Santa Paula

SIDNEY M. EHREMAN, B.L., LL.B. (1948)
700 Nevada Bank bldg., San Francisco

JOHN GALLWEY, M.D., Ph.D., LL.D. (1948)
1195 Bush st., San Francisco

OFFICERS OF THE REGENTS

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President
Sacramento

William Henry Crocker, Ph.B.

Chairman
Crocker First National Bank
San Francisco

George Tourny

Treasurer
The San Francisco Bank, San Francisco

Jno. U. Oalkins, Jr., B.L., J.D.

Attorney
901 Crocker bldg., San Francisco

Robert M. Underhill, B.S.

Secretary
219 California Hall, Berkeley

Luther A. Nichols, A.B.

Comptroller
219 California Hall, Berkeley

Deming G. MacClise, B.S.

Assistant Secretary and Assistant
Comptroller

48 Library, University of California at
Los Angeles

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FOR THE YEAR 1932-33*

Agriculture:

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Miller, and Merriam

Educational Policy:

Regents Rowell, Moffitt, Olney, Ramm,
Mrs. Sartori, Ehrman, and Teague

Educational Relations:

Regents Kersey, Rowell, Ramm, Earl,
Neylan, and Olney

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Fleishhacker, Neylan, Teague, and
Olney

Engineering:

Regents Ramm, Levey, Cumming, Mills,
and Miller

Executive Committee:

This committee consists of the chairmen
of all the other committees, and the
President of the Alumni Association:
Regents Mills, Rowell, Kersey, Mrs.
Sartori, Ramm, Earl, Fleishhacker,
McEnerney, Ehrman, Cochran, Neylan,
Crocker, Dickson, Moffitt, and Olney

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Regents Earl, Moffitt, McEnerney, Fleishhacker,
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Ehrman

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Jurisprudence:

Regents McEnerney, Cochran, Levey,
Olney, and Ehrman

Letters and Science:

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Levey, and Mrs. Sartori

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

Lick Observatory:

Regents Neylan, Crocker, Cumming,
Gallwey, and Fleishhacker

University of California Medical School:

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

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

Regents Dickson, Cochran, Mrs. Sartori,
Haynes, Kersey, Teague, and Merriam

Wilmerding School:

Regents Moffitt, Earl, and Cumming

* 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 Provost of the University of California at Los Angeles.

DEMING G. MACLISE, 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.

CLAUDE BURTON HUTCHISON, M.S., Dean of the College of Agriculture, and Director of the Agricultural Experiment Station.

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.

LEON D. BATCHELOR, Ph.D., Director of the Citrus Experiment Station and Graduate School of Tropical Agriculture.

HARRY MUNSON SHOWMAN, E.M., M.A., Recorder.

CLARENCE HALL ROBISON, Ph.D., Associate Director of Admissions.

JOHN EDWARD GOODWIN, B.L., B.L.S., Librarian.

LILLIAN RAY TITCOMB, M.D., Physician for Women.

DONALD MACKINNON, 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 Department of Agriculture,

The Agricultural Experiment Station,

The Agricultural Extension Service,

The Giannini Foundation of Agricultural Economics,

Engineering (including the Surveying Camp at Fairfax),

Mining,

Chemistry.

The Schools of

Architecture,

Education,

Jurisprudence,

Librarianship,

Medicine (first year).

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

The California Museum of Vertebrate Zoology.

The Museum of Paleontology.

The Museum of Anthropology, Archaeology, and Art.

The Institute of Child Welfare.

The Institute of Social Sciences.

The Institute of Experimental Biology.

II. AT MOUNT HAMILTON

The Lick Astronomical Department (Lick Observatory).

III. 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.

IV. IN LOS ANGELES

University of California at Los Angeles
College of Letters and Science,
Teachers College,
*The Branch of the College of Agriculture in Southern California,
including the courses of instruction in Subtropical Horticulture
and the Agricultural Experiment Station's activities at Los Angeles,
The Lower Division in Chemistry, Commerce, Engineering, and Mining,
The Summer School of Surveying.
Los Angeles Medical Department, graduate instruction only.

V. AT DAVIS

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

VI. AT RIVERSIDE

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

VII. AT LA JOLLA

The Scripps Institution of Oceanography.

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

ORGANIZATION AND GOVERNMENT

HISTORY OF THE UNIVERSITY

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

Private action owed its inception to the foresight of the Rev. Henry Durant. In 1853, under the auspices of the Presbytery of San Francisco and of the Congregational Association of Oakland, Mr. Durant opened in Oakland the "Contra Costa Academy," but soon changed the name to that of "College School," in order to signify that the undertaking was only preparatory to a projected college. In 1855 such an institution was incorporated under the name of "College of California." In 1860 that college was formally opened, and classes were graduated from 1864 to 1869 inclusive. The instruction was given in buildings in Oakland, but in 1856 a tract of land five miles to the north was obtained, and the college buildings were begun. In 1866 the name of Berkeley was given to the townsite about the college campus.

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

Federal action began in 1853 when Congress gave the State 46,000 acres of land for a "seminary of learning." A further impulse was given in 1862 by the passage of the Morrill Act for the establishment of an Agricultural, Mining, and Mechanical Arts College.

In 1867 these three forces began working together to one end—the establishment of a University of California. The private enterprise known as the College of California contributed its buildings and four blocks of land in Oakland and its 160 acres of land in Berkeley; the Federal Government, the Congressional gift of 150,000 acres of public lands, and the State, its property accumulated for the purpose, together with new legislative appropriations. The legislative act creating the University of California was signed by the Governor on March 23, 1868, and the new institution opened its doors for instruction in September, 1869.

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

GOVERNMENT AND ORGANIZATION

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. 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.

Through aid from the State and the United States and by private gifts, the University of California 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.

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

In March, 1881, the legislature of California created the Los Angeles State Normal School. Five acres of ground were donated at the corner of Fifth Street and Grand Avenue—the present site of the Los Angeles City Library; and the cornerstone of the first building was laid on December 17 of that year. Instruction began in August, 1882, with a faculty of three teachers and an enrollment of sixty-one students.

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

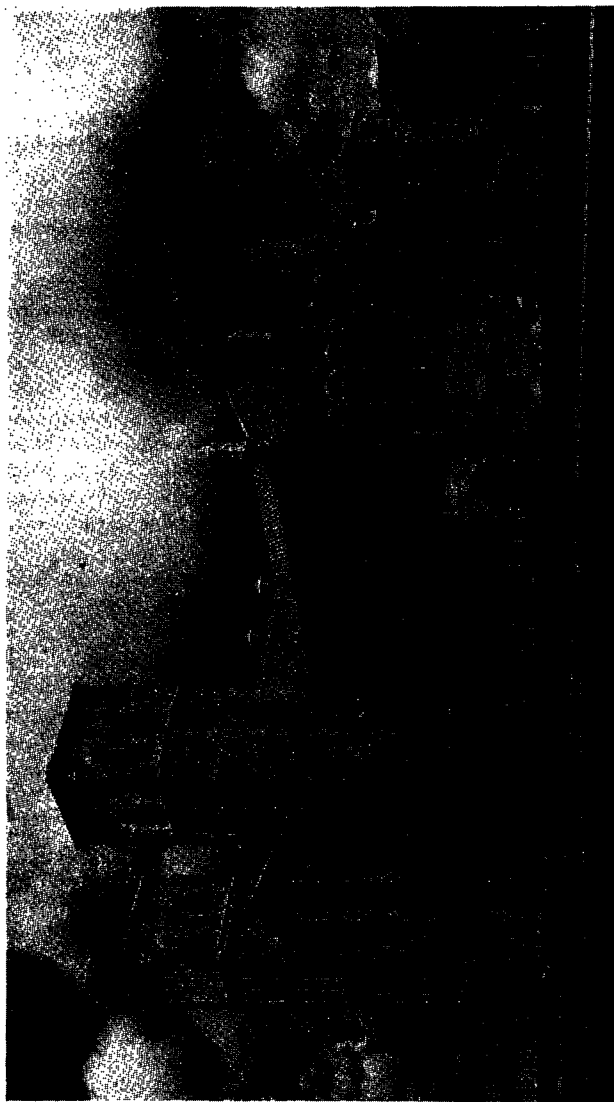
Through legislative action made effective by the Governor's signature on July 24, 1919, the grounds, buildings, and records of the Los Angeles State Normal School were transferred to the Regents of the University of California. The name of the School was changed to Southern Branch of the University of 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, Beverley Hills, and Los Angeles. The removal to the new site from North Vermont Avenue took place in August, 1929, and instruction in all departments began in the new buildings September 23, 1929.

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

The University of California at Los Angeles is administered by the Vice-President and Provost, 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.



JOSIAH ROYCE HALL

Photograph by L. D. Barber

FACULTY

- ADAMS, GEORGE W., A.B., LL.B., Lecturer in Political Science.
ADAMS, SIR JOHN, B.Sc., M.A., LL.D., F.C.P., Lecturer in Education (Professor Emeritus of Education, University of London).
ADAMS, JOHN MEAD, Ph.D., Associate Professor of Physics.
ADAMS, WILLIAM F., Ph.D., Assistant Professor of History.
ALLEN, BENNET M., Ph.D., Professor of Zoology.
ALLEN, BERNICE, M.A., Associate in Home Economics.
ALLEN, EVA M., Associate in Commercial Practice.
ALLEN, HERBERT F., Ph.D., Associate Professor of English.
ANDERSON, DIANA, A.B., Assistant Supervisor of Physical Education for Women.
ANDERSON, RUTH, Ph.D., Assistant Professor of Biology.
APPLEMAN, DAVID, B.S., Research Assistant in Subtropical Horticulture.
ATKINSON, RUTH V., M.A., Assistant Professor of Physical Education for Women and Director of Physical Education for Women.
BAGBY, WESLEY S., A.B., Assistant in Economics.
BAILIFF, LAURENCE DEANE, Ph.D., Associate Professor of Spanish.
BAIRD, RAYMOND C., Ph.B., LL.B., Major, U. S. Army, Assistant Professor of Military Science and Tactics.
BALL, GORDON H., Ph.D., Assistant Professor of Zoology.
BARJA, CÉSAR, Doctor en Derecho, Professor of Spanish.
BARKER, MYRON IRVING, Ph.D., Assistant Professor of French.
BARNETT, SAMUEL J., Ph.D., Professor of Physics.
BARTLETT, EMILY M., Ph.D., Instructor in Biology.
BATCHELOR, LEON D., Ph.D., Professor of Orchard Management and Director of the Branch of the College of Agriculture in Southern California.
BAUGH, RUTH EMILY, Ph.D., Assistant Professor of Geography.
BECKETT, SAMUEL H., Eng., Professor of Irrigation Investigations and Practice, Riverside.
BEECROFT, ERIC ARMOUR, M.A., Lecturer in Political Science.
BELL, CLIFFORD, Ph.D., Assistant Professor of Mathematics.
BELL, EMILY TODD, Assistant in Kindergarten-Primary Education.
BELLAMY, ALBERT W., Ph.D., Associate Professor of Zoology and Research Associate in Genetics.
BERNHARDT, JANE, M.A., Training Teacher, Kindergarten.
BIALOGLOWSKI, JACOB, B.S., Research Assistant in Agriculture.
BIENCOURT, MARIUS IGNACE, Lic. es Lettres, Associate in French.

- BJORCK, DAVID K., Ph.D., Assistant Professor of History.
BLACET, FRANCIS E., Ph.D., Instructor in Chemistry.
BLANCHARD, FREDERIC THOMAS, Ph.D., Professor of English.
BOCK, EDWARD, M.A., Associate in English.
BOND, JESSE A., M.A., Supervisor of Training, Junior High School.
BONNET, PAUL, Lic. es Lettres, Associate in French.
BOODIN, JOHN ELOF, Ph.D., Professor of Philosophy.
BOUTON, HELEN F., M.A., Training Teacher, Fifth Grade.
BOYCE, ALFRED M., M.S., Assistant Professor of Entomology, Riverside.
BRADLEY, BARCLAY W., Ph.D., Lecturer in Classical Languages.
BRADY, CARROLL P., A.B., Assistant in Mathematics.
BRIOS, LOUIS F. D., M.A., Associate in French.
BROCKWAY, FOSS R., Associate in Mechanic Arts.
BRUCE, ETHEL S., Associate in Physical Education for Women.
BEUENE, ELIZABETH, M.A., School Counselor, Training Department.
BEUSE, HENRY RAYMOND, Ph.D., Professor of French.
BUELL, LLEWELLYN MORGAN, Ph.D., Assistant Professor of English.
BURD, JOHN S., B.S., Professor of Plant Nutrition.
BURKE, WILLIAM, Assistant in Physical Education for Men.
BURROW, CLAYTON, B.S., Training Teacher, First Grade.
BURTOCHETT, FLOYD F., Ph.D., Assistant Professor of Economics.
CAMERON, SIDNEY H., Ph.D., Assistant Professor of Subtropical Horticulture and Assistant Plant Physiologist in the Experiment Station.
CAMPELL, LILY B., Ph.D., Professor of English.
CANBY, CAROLINE P., M.A., Associate in Biology.
*CAREY, FREDERICK MASON, Ph.D., Associate Professor of Greek and Latin.
CARHART, MARGARET SPRAGUE, Ph.D., Assistant Professor of English.
CAUGHEY, JOHN W., Ph.D., Assistant Professor of History.
CHANDLER, HELEN CLARK, Assistant Professor of Fine Arts.
CHAVEZ, EZEQUIEL A., Lecturer on Latin America.
CHILDERS, ELWOOD G., M.B.A., Assistant in Economics.
CLENDENIN, JOHN C., M.S., Lecturer in Economics.
COLLINS, KATHERINE E., M.A., Associate in English.
CONDIT, IRA J., Ph.D., Associate Professor of Subtropical Horticulture and Associate Subtropical Horticulturist in the Experiment Station.
COOP, SQUIRE, Lecturer in Music.
CORBATÓ, HERMENEGILDO, Ph.D., Assistant Professor of Spanish.
COWLES, RAYMOND B., Ph.D., Assistant Professor of Biology.
COX, GEORGE JAMES, A.R.C.A., Professor of Art.
COZENS, FREDERICK W., Ph.D., Associate Professor and Associate Director of Physical Education for Men.

* Absent on leave, 1932-33.

- CRAIG, HORACE S., Assistant in Fencing.
 CROOK, MASON N., Ph.D., Instructor in Psychology.
 CROWELL, WILLIAM R., Ph.D., Associate Professor of Analytical Chemistry.
 CROWLEY, FRANCOIS J., Ph.D., Assistant Professor of French.
 CUBBERLEY, HAZEL J., B.S., Associate Supervisor of Physical Education for Women.
 CUNNINGHAM, WILLIAM G., A.B., Assistant in Geography.
 DARSIE, MAEVIN LLOYD, Ph.D., Professor of Education and Dean of the Teachers College.
 DAUS, PAUL H., Ph.D., Associate Professor of Mathematics.
 DAVIS, FRANK C., Ph.D., Instructor in Psychology.
 DAWSON, MARGARET, Ed.B., Assistant Training Teacher, Kindergarten.
 DEANE, MARTHA B., B.S., Associate Supervisor of Physical Education for Women.
 DELANO, ANNITA, Associate in Fine Arts.
 DELSASSO, LEO P., A.B., Associate in Physics.
 DIAMOND, WILLIAM, Ph.D., Associate Professor of German.
 DILL, HELEN CHUTE, A.B., Supervisor of Training, Music.
 *DIMOCK, MARSHALL E., Ph.D., Assistant Professor of Political Science.
 DODD, LAURENCE E., Ph.D., Associate Professor of Physics.
 DODD, PAUL A., Ph.D., Lecturer in Economics.
 DOLCH, ALFRED KARL, Ph.D., Assistant Professor of German.
 DOWNES, CARL SAWYER, Ph.D., Assistant Professor of English.
 DUNN, MAX S., Ph.D., Associate Professor of Chemistry.
 DYER, BRAINEED, Ph.D., Instructor in History.
 EBY, HARVEY L., Ph.D., Associate Professor of Education.
 EDWARDS, HIRAM W., Ph.D., Associate Professor of Physics.
 EHRLICH, GOTTFREY, Ph.D., Instructor in German.
 ELLIS, JOSEPH W., Ph.D., Associate Professor of Physics.
 EPLING, CARL C., Ph.D., Assistant Professor of English.
 EVANS, MAUD D., M.A., Associate in Home Economics.
 EWING, MAJL, Ph.D., Assistant Professor of English.
 FAWCETT, HOWARD S., Ph.D., Professor of Plant Pathology, Riverside.
 FERNALD, GRACE M., Ph.D., Associate Professor of Psychology.
 FISHER, S. CAROLYN, Ph.D., Assistant Professor of Psychology.
 FITE, ALEXANDER GREEN, Ph.D., Associate Professor of French.
 FRAMPTON, PAUL, Ed.B., Associate Supervisor of Physical Education for Men.
 FRANZ, SHEPHERD IVORY, Ph.D., M.D., LL.D., Professor of Psychology.
 FRISBEE, IRA N., M.B.A., C.P.A., Associate Professor of Economics.
 GAHAGAN, LAWRENCE, Ph.D., Assistant Professor of Psychology.
 GAINES, LUCY M., M.A., Assistant Professor of History.

* Absent on leave, 1932-33.

- GARVER, RAYMOND, Ph.D., Associate Professor of Mathematics.
- GENGERELLI, JOSEPH A., Ph.D., Assistant Professor of Psychology.
- GERE, NELLIE HUNTINGTON, Associate Professor of Fine Arts.
- GIBBS, SILAS, Ed.B., Assistant in Physical Education for Men.
- GIDDINGS, FRANCES, M.A., Instructor in Kindergarten-Primary Education, and Supervisor of Training, Kindergarten and Primary.
- GILHOUSEN, HOWARD C., Ph.D., Instructor in Psychology.
- GLAZIER, HARRIET E., M.A., Assistant Professor of Mathematics.
- GODDARD, VERZ R., Ph.D., Assistant Professor of Home Economics.
- GONZÁLEZ, MANUEL PEDRO, Ph.D., Assistant Professor of Spanish.
- GOODWIN, JOHN EDWARD, B.L., B.L.S., Librarian.
- GORDON, KATE, Ph.D., Associate Professor of Psychology.
- GOULD, MARJORY F., Ed.B., Assistant in Physical Education for Women.
- GRAHAM, MALBONE W., Ph.D., Professor of Political Science.
- GRANT, J. A. C., Ph.D., Assistant Professor of Political Science.
- GRANT, U. S., Ph.D., Assistant Professor of Geology.
- GRAY, GRETA, Ph.D., Associate Professor of Home Economics.
- GREENWOOD, BARBARA, Associate in Kindergarten and Primary Education and Supervisor of Nursery School Training.
- GRIERSON, MARGARET, A.B., Associate in Biology.
- GRUNEWALD, LUCILE R., M.A., Assistant Director of Physical Education for Women.
- GUNTHER, L., M.D., Consultant, Student Health Service.
- HAINES, CHARLES G., Ph.D., Professor of Political Science.
- HALLAM, FLORENCE MARY, A.B., Supervisor of Training, Home Economics.
- HARRIMAN, MARJORIE, Ed.B., Associate in Fine Arts.
- HARSHBERGER, EDITH R., M.A., Assistant Supervisor of Physical Education for Women.
- HARVEY, ROWLAND HILL, Ph.D., Associate Professor of History.
- HAUPT, ARTHUR W., Ph.D., Assistant Professor of Botany.
- HAWLEY, JEAN I., A.B., Assistant in Economics.
- HEDRICK, EARLE R., Ph.D., Professor of Mathematics.
- HILEND, MARTHA L., M.A., Associate in Botany.
- HILL, MERTON E., Ed.D., Professor of Education and Director of Admissions.
- HODGSON, ROBERT W., M.S., Associate Professor of Subtropical Horticulture and Subtropical Horticulturist in the Experiment Station.
- HOFFLEIT, HERBERT BENNO, Ph.D., Assistant Professor of Latin and Greek.
- HOFFMANN, ROLF, Ph.D., Associate Professor of German.
- HOLAHAN, ANNA FENELON, Ph.B., Associate in French.

¹ In residence first half-year only, 1932-33.

- HOLLINGSWORTH, CECIL B., Ed.B., Associate in Physical Education for Men.
- HOOPER, BERNICE H., B.S., Associate in Physical Education for Women.
- HOWELL, HELEN M., Ed.B., Associate in Fine Arts and Supervisor of Art Training.
- HUBARD, ALICE, M.A., Associate in French.
- HUBBELL, GEORGE SHELTON, Ph.D., Assistant Professor of English.
- HUMISTON, CLINTON C., M.A., Associate in French.
- HUMPHREYS, CLARA BARTRAM, M.A., Associate in Fine Arts.
- HUNNEWELL, ALICE O., Instructor in English.
- HUNT, GUY H., C.E., Assistant Professor of Applied Mathematics.
- HUSSEY, ROLAND D., Ph.D., Assistant Professor of History.
- HUSTVEDT, SIGURD BERNHARD, Ph.D., Professor of English.
- HYDE, EDITH I., A.B., Associate in Physical Education for Women.
- INGRAM, SELENA P., M.A., Associate in Subject A.
- JACKEY, DAVID F., B.S., M.A., Lecturer in Education and Assistant Supervisor of Classes for the Training of Trade and Industrial Teachers.
- JAMES, GLENN, Ph.D., Associate Professor of Mathematics.
- JOHNS, WILBUR O., Associate in Physical Education for Men.
- JOHNSON, ARTHUR M., Ph.D., Assistant Professor of Botany.
- JOHNSON, BENJAMIN W., Lecturer in Education, Assistant Director of Vocational Education, and Supervisor of Classes for the Training of Trade and Industrial Teachers.
- JOHNSON, GEORGIA B., Ph.D., Instructor in Physical Education for Women.
- JONES, MARGARET O., Ed.D., Associate in Home Economics and Supervisor of Classes for the Training of Home Economics Teachers.
- KAPLAN, JOSEPH, Ph.D., Assistant Professor of Physics.
- KARR, HARRISON M., M.A., Associate in Public Speaking.
- KAWAI, KAZUO, Ph.D., Instructor in Geography and History.
- KELLER, ADRIAN D., B.S. in E.E., Associate in Mechanic Arts.
- KELLER, HELEN B., Ed.B., Supervisor of Training, Elementary.
- KINSKY, E. LEE, Ph.D., Assistant Professor of Physics.
- KLINGBERG, FRANK J., Ph.D., Professor of History.
- KNUDSEN, VERN O., Ph.D., Associate Professor of Physics.
- KOONTZ, LOUIS K., Ph.D., Associate Professor of History.
- KRAUSE, ANNA, Ph.D., Assistant Professor of Spanish.
- KREISS, SARAH D., R.N., Nurse and Assistant.
- KRICHEFSKY, BORIS, A.B., Associate in Biology.
- LAUGHLIN, HELEN MATTHEWSON, Dean of Women.
- LAUNER, HERBERT F., A.B., Associate in Chemistry.
- LAZIER, EDGAR L., Ph.D., Assistant Professor of Zoology.
- LEDGERWOOD, HELEN J., Associate in Art.

- LEONARD, FREDERICK C., Ph.D., Associate Professor of Astronomy.
 LETESSIER, MADELEINE, A.B., Associate in French.
 LEWIS, WESLEY, M.A., Associate in Public Speaking.
 LOBANOV-ROSTOVSKY, ANDRÉ, Assistant Professor of History.
 LOCKEY, JOSEPH B., Ph.D., Professor of History.
 LONGUEIL, ALFRED E., Ph.D., Associate Professor of English.
 LOSSING, LAVERNA L., A.B., Supervisor of Training; Music.
 DE LOWTHER, MARIA L., M.A., Lecturer in Spanish.
 LYNCH, PAULINE F., M.A., Associate in Home Economics.
 LYON, GRETCHEN M., A.B., Assistant in Biology.
 MCBRIDE, GEORGE MCCUTCHEN, Ph.D., Professor of Geography.
 MCCLELLAN, MYRTA LISLE, B.S., Assistant Professor of Geography.
 MACINTYRE, CARLYLE F., Ph.D., Assistant Professor of English.
 MACKENZIE, HARRIET E., Ph.D., Assistant Professor of English.
 MCKINLAY, ARTHUR PATCH, Ph.D., Professor of Latin.
 MACKINNON, DONALD, M.D., Physician for Men.
 MCLAUGHLIN, KATHERINE L., M.A., Associate Professor of Education.
 MCLINN, RUBY I., R.N., Nurse.
 MALONEY, GERTRUDE C., Ed.B., Training Teacher, Third Grade.
 MALONEY, PATRICK, Associate in Physical Education for Men.
 MANSFIELD, HAROLD W., Assistant Professor of Mechanic Arts and Director of Shops.
 *MARSH, CHARLES ALMER, B.S., Associate Professor of Public Speaking.
 MARSH, JAMES W., Associate in Mechanic Arts.
 MASON, WENDELL E., M.S.E., M.E., Assistant Professor of Applied Mathematics.
 MATTHEWS, JAMES E., Captain, U. S. Army, Assistant Professor of Military Science and Tactics.
 MAVERICK, LEWIS A., Ed.D., Ph.D., Assistant Professor of Economics.
 MERIAM, JUNIUS L., Ph.D., Professor of Education.
 MILLER, EARL JOYCE, Ph.D., Professor of Economics and Dean of Men.
 MILLER, HUGH, Ph.D., Assistant Professor of Philosophy.
 MILLER, LOYE HOLMES, Ph.D., Professor of Biology.
 MILLER, PIERRE H., M.S., Research Associate in Plant Pathology, Riverside.
 MILLER, WILLIAM JOHN, Ph.D., Sc.D., Professor of Geology.
 MONTAU, FRANCISCO, A.B., Assistant in Spanish.
 MOORE, ERNEST CARROLL, Ph.D., LL.D., Professor of Education, Vice-President and Provost of the University of California at Los Angeles.
 MORAN, EDWARD J., Lt. Colonel, U. S. Army, Professor of Military Science and Tactics.
 MORGAN, WILLIAM CONGER, Ph.D., Professor of Chemistry.

* In residence second half-year only, 1932-33.

- MORRIS, ADELAIDE, M.A., Associate in Fine Arts.
MOSAUER, WALTER, Ph.D., Instructor in Zoology.
MURDOCH, JOSEPH, Ph.D., Assistant Professor of Geology.
MURRAY, JAMES, M.A., Associate in Public Speaking.
NEWCOMB, OLIVE, Associate in Fine Arts.
NICHOLAS, WILLIAM HOWARD, A.B., B.L., Lecturer in Political Science.
NOBLE, HOWARD SCOTT, M.B.A., C.P.A., Associate Professor of Economics.
NORRIS, W. J., M.D., Consultant, Student Health Service.
OLDER, FRANK E., B.S., Assistant Professor of Agricultural Teaching.
OLMSTED, JOHN W., M.A. (Oxon.), Assistant Professor of History.
OSTER, FRED H., Assistant Supervisor of Physical Education for Men.
PANUNZIO, CONSTANTINE, Ph.D., Assistant Professor of Economics.
*PARISH, JOHN CARL, Ph.D., Professor of History.
PARK, DONALD K., A.B., Associate in Physical Education for Men.
PARTIN, AGNES EDWARDS, A.B., Associate in English.
PASTOR, CONSUELO, A.B., Assistant in Spanish.
PAXTON, CHARLES H., B.S., Associate in Mechanic Arts.
PEARSON, FRANK J., Captain, U. S. Army, Assistant Professor of Military Science and Tactics.
PEARSON, LU EMILY, Ph.D., Assistant Professor of English.
PEGUM, DUDLEY F., Ph.D., Assistant Professor of Economics.
PÉRIGORD, PAUL, Ph.D., Professor of French Civilization.
PERSELS, BESSIE HOYT, M.A., Training Teacher, Fourth Grade.
PETSCH, PHILIP ROBERT, J.D., Instructor in German.
PHILLIPS, JOHN B., Associate in Mechanic Arts.
PIATT, DONALD A., Ph.D., Professor of Philosophy.
PIERCE, THELMA, Ed.B., Assistant Training Teacher, Nursery School.
PLOUGH, ESTELLA B., Associate in Commercial Practice.
PLUNKETT, ORDA A., Ph.D., Assistant Professor of Botany.
PORTER, M. BURNLEY, Appointment Secretary and Supervisor of Teacher Training.
QUAYLE, HENRY J., M.S., Professor of Entomology, Riverside.
RAMSEY, JAMES B., Ph.D., Assistant Professor of Chemistry.
RAUP, HALLOCK F., M.S., Associate in Geography.
REDEMANN, C. ERNST, A.B., Associate in Chemistry.
REINSCH, FRANK HERMAN, Ph.D., Associate Professor of German.
RICE, PHILIP W., M.A., Associate in English.
RIEBER, CHARLES H., Ph.D., LL.D., Professor of Philosophy and Dean of the College of Letters and Science.
RINGER, EDITH HOPE, Training Teacher, Second Grade.
RINGNALDA, MARGARET W., A.B., Assistant in Subject A.

* Absent on leave, 1932-33.

- ROBBINS, GEORGE W., M.B.A., Assistant Professor of Economics.
- ROBERTS, MARGARET MANNING, Ph.B., Associate in Kindergarten-Primary Education.
- ROBERTSON, G. ROSS, Ph.D., Associate Professor of Organic Chemistry.
- ROBINSON, EMMA JANE, Training Teacher, Sixth Grade.
- ROBISON, CLARENCE HALL, Ph.D., Associate Professor of Education and Associate Director of Admissions.
- ROCKEY, ORDEAN, B.Litt., Assistant Professor of Political Science.
- ROLFE, FRANKLIN P., Ph.D., Instructor in English.
- ROOF, EDNA LEE, A.B., Lecturer in Physical Education for Women.
- ROSENBERG, S. L. MILLARD, Ph.D., Professor of Spanish.
- RYAN, SYLVIA N., M.A., Associate in Spanish.
- SCANTLEBURY, EVA, M.A., Training Teacher, Nursery School.
- SCHOMAKER, CHRISTEL B., M.A., Associate in German.
- SCHREINER, ALEXANDER, Organist and Lecturer in Music.
- SCHUCKMAN, FRED ARTHUR, M.A., Lecturer in Political Science.
- SCOTT, FLORA MURRAY, Ph.D., Assistant Professor of Botany.
- SEEDS, CORINNE A., M.A., Assistant Professor of Elementary Education and Principal of the Training School.
- SHAMBAUGH, M. EFFIE, M.A., Assistant Supervisor of Physical Education for Women.
- SHEPARD, MARION A., A.B., Associate in Physical Education for Women.
- SHERWOOD, GEORGE E. F., Ph.D., Professor of Mathematics.
- SHOWMAN, HARRY MUNSON, E.M., M.A., Lecturer in Mathematics and Recorder.
- SIMONSON, DeCALVUS W., M.A., Associate in English.
- SMITH, BERYL KIRK, Associate in Fine Arts.
- SMITH, HARRY S., M.A., Professor of Entomology, Riverside.
- SMITH, RALPH H., Ph.D., Entomologist, Riverside.
- SMITH, WILLIAM A., Ph.D., Associate Professor of Education.
- SOOY, LOUISE PINKNEY, Associate Professor of Fine Arts.
- SOPER, EDGAR K., Ph.D., Associate Professor of Geology.
- SPAULDING, WILLIAM H., A.B., Director of Physical Education for Men.
- SPONSLER, OLENUS L., Ph.D., Professor of Botany.
- STEARNS, THEODORE, M.A. (Wurzberg), Professor of Music.
- STEDMAN, LULU M., Ed.B., Supervisor of Special Education.
- STEINER, H. ARTHUR, Ph.D., Assistant Professor of Political Science.
- STEWART, FRANK M., Ph.D., Professor of Political Science.
- STOCKWELL, MARVEL M., Ph.D., Assistant Professor of Economics.
- STONE, HOSMER W., Ph.D., Assistant Professor of Chemistry.
- SULLIVAN, ELLEN B., Ph.D., Assistant Professor of Psychology.
- TEMPLIN, ERNEST H., Ph.D., Assistant Professor of Spanish.
- THOMAS, EVALYN A., B.L.I., Instructor in English.

- THOMPSON, HELEN B., Ph.D., Professor of Home Economics.
 THOMPSON, LOUISE GUTHRIE, Ed.B., Associate in Fine Arts.
 THOMPSON, THOMAS E., A.B., Associate in Subject A.
 TITCOMB, LILLIAN R., M.D., Physician for Women.
 TITUS, CHARLES H., Ph.D., Assistant Professor of Political Science.
 TROTTER, HARRY, Assistant in Physical Education for Men.
 TUFTS, JAMES H., Ph.D., LL.D., Lecturer in Philosophy.
 VARNEY, BURTON M., Ph.D., Associate Professor of Geography.
 VAUGHN, BERTHA W., Teacher of Voice.
 VYSEKAL, EDOUARD, Lecturer in Fine Arts.
 WADDELL, CHARLES WILKIN, Ph.D., Professor of Education and Director
 of the Training Department.
 WALLACE, MARION, Ed.B., Training Teacher, Nursery School.
 WARNER, ARTHUR H., Ph.D., Instructor in Physics.
 WATKINS, GORDON S., Ph.D., Professor of Economics, Associate Dean of
 the Summer Sessions and Dean of the Summer Session in Los Angeles.
 WEBB, ROBERT WALLACE, M.S., Assistant in Geology.
 WEINSVEIG, MILDRED J., M.A., Assistant in German.
 WELCH, WALTER B., A.B., Associate in Botany.
 WELLS, BERTHA E., Ed.B., Supervisor of Training, Elementary.
 WENZLICK, WINONA, Ed.B., Associate in Fine Arts.
 WESTERGAARD, WALDEMAR, Ph.D., Professor of History.
 WHITE, NATALIE, M.A., Supervisor of Training, Art.
 WHITICE, BELLE H., Associate in Fine Arts.
 WHITMAN, ALFRED R., Ph.D., Associate Professor of Geology.
 WHYBURN, WILLIAM M., Ph.D., Associate Professor of Mathematics.
 WILLIAMS, DONALD C., Ph.D., Assistant Professor of Philosophy.
 WILLIAMS, J. HAROLD, Ph.D., Professor of Education.
 WILSON, FLORENCE A., M.A., Associate in Home Economics.
 WITCHER, WILLIAM V., Captain, U. S. Army, Assistant Professor of Military
 Science and Tactics.
 WOELLNER, FREDERICK P., Ph.D., Associate Professor of Education.
 WOODBRIDGE, VIRGINIA VAN NORDEN, Ed.B., Associate in Fine Arts.
 WOODWORTH, DOROTHEA CLINTON, Ph.D., Assistant Professor of Latin and
 Greek.
 WORKS, PIERCE H., A.B., Assistant in Physical Education for Men.
 WORTHINGTON, EUPHEMIA R., Ph.D., Assistant Professor of Mathematics.
 WRIGHT, FRANCES A., Associate Professor of Music.
 YOUNG, WILLIAM G., Ph.D., Assistant Professor of Chemistry.
 ZEITLIN, MARION ALBERT, M.A., Assistant Professor of Spanish.
 ZIEBER, CLIFFORD M., Ph.D., Assistant Professor of Geography.

ADMISSION TO THE UNIVERSITY

ADMISSION TO UNDERGRADUATE STATUS

Beginning September, 1931, an applicant for admission to undergraduate status in the University 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 34), or by examination (Plan II, A or B—page 36). 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 Office of Admissions, University of California at Los Angeles. In addition the applicant must show 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 39). This last requirement will not be demanded from applicants for admission to sessions up to and including the semester beginning September, 1933, who have completed the requirements for junior standing in the colleges of the University to which they seek admission (Plan III, A—page 38).

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 required subjects (Plan II, C—page 37).

(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 41.)

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. Applicants for advanced standing should request the proper authorities to forward credentials early, preferably in July (or January), so that ample time may be had for any subsequent correspondence.

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, except (until and including September 1933) those whose records at other collegiate institutions, upon appraisal by the Board of Admissions, entitle them to junior standing in the respective colleges of the University to which admission is sought.

The requirement of one unit in history (a) may be met by any two semesters in history or by a semester of civics and a semester of history.

The science requirement (d) cannot be satisfied by one-half unit of each of two sciences nor by a subject undertaken earlier than the third year of the high school course.

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

Definition of the Subjects

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

For convenience there are listed in the following table the Examinations offered by the College Entrance Examination Board in June, 1932, 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, 1932</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

**Requirement
University of California**

**College Entrance Examination Board
Examinations, June, 1932**

- (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
- (f) Mathematics—1 unit
A2. Quadratics and Beyond; or
or
{D. Solid Geometry; and
{E. Plane Trigonometry
Science—1 unit
Chemistry, or Physics
or
B. Third-year or Intermediate French, or German, or Italian, or Spanish;
Foreign Language—1 unit
or
Cp. 3. Three-year Latin, or Greek, or French, or German, or Italian, or Spanish; or
or
Cp. H. Third-year Greek
Foreign Language—2 units
Cp. 2. Two-year Latin, or Greek, or French, or German, or Italian, or Spanish
(in a language other than that presented under (e), 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 ed, Plane and Solid Geometry; Cp. 3, Elementary Mathematics; Cp. H, Advanced Mathematics;
Natural Science—Physical Geography;
Drawing—Freehand Drawing and Mechanical Drawing.

PREPARATION FOR UNIVERSITY CURRICULA

In the table on page 33 there is shown for each of the principal University curricula to which freshman students may be admitted the high school preparation which, in the opinion of University authorities is desirable. Each program includes the subjects which are required for admission to the University of California, so arranged as to permit the student in a California high school to combine with the subjects thus recommended the additional subjects commonly required for high school graduation.

Attention is called especially to the fact that physics and chemistry are recommended in the preparation for each curriculum (with a single exception) in the College of Letters and Science. This has been done, not only because of the value of each or both of these subjects as preparation for the courses of a particular curriculum, but also because completion of these subjects in the high school will release the student from a portion of the requirements for the junior certificate in the college and thereby increase his opportunity for elective study in the freshman and sophomore years of the University course.

Especial care should be exercised by the high school student in choosing a foreign language. The desirability of Latin need not be emphasized here. German and French are the modern foreign languages which are most likely to be of use to the University student for research and for collateral reading.

The high school student planning to enter the University but uncertain at the outset of his high school course of his objective should insure to himself a wide range of opportunities by completing in the high school a program of studies somewhat as follows: history, 1 unit; English, 3 units; elementary algebra, 1 unit; plane geometry, 1 unit; algebraic theory, $\frac{1}{2}$ unit; trigonometry, $\frac{1}{2}$ unit; chemistry, 1 unit; physics, 1 unit; foreign language, 4 units; geometrical drawing, 1 unit; and electives to make 15 or more units total.

The student is cautioned that vocational or activities courses in the high school are not regarded as acceptable substitutes for basic academic studies in the preparation for University curricula, and that unless this caution be observed, although admitted to the University, he 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

HIGH SCHOOL SUBJECTS REQUIRED FOR THE SEVERAL CURRICULA AND SUGGESTED ELECTIVES

College and Curriculum	History	English	Mathematics				Lab. Sci.		Foreign Language					Freehand Draw.	Geometrical Draw.	Electives
			El. Alg. Pl. G.	Alg. Theory	Trigonom.	Solid Geom.	Chemistry	Physics	French	German	Greek	Italian	Latin	Spanish		
College of Letters and Science:																
<i>a</i> Anthropology.....	3	3	2				1	1	2	2						1
<i>a</i> Architecture.....	1	3	2				1	1	3	*	*	*				1
<i>ab</i> Art.....	1	3	2				1	1	4	*	*	*				3
<i>ab</i> Astronomy.....	1	3	2	1			1	1	2	2					1	4
<i>a</i> Bacteriology.....	1	3	2				1	1	2	2						4
Botany.....	1	3	2				1	1	2	2			2			1
Chemistry.....	1	3	2				1	1	2	2						4
Economics.....	1	3	2				1	1	2	2						2
English.....	2	3	2				1	1	3	*	*		3			2
French.....	1	3	2				1	1	4				2			1
Geography.....	1	3	2				1	1	2	2					1	1
Geology.....	1	3	2				1	1	2	2						1
German.....	1	3	2				1	1	4				*			1
Greek.....	1	3	2				1	1			3		4			3
History.....	3	3	2				1	1	*	*	*	*	2			3
<i>a</i> Household Art.....	3	3	2				1	1	2	*	*	*	*	*		5
Household Science.....	1	3	2				1	1	2					*		1
<i>a</i> Italian.....	1	3	2				1	1	*			4	2			1
Latin.....	1	3	2				1	1	*				4			1
Mathematics.....	1	3	2	1			1	1	2	2						1
<i>ab</i> Nursing.....	1	3	2				1	1	2	2						3
<i>ab</i> Nursing (Five Year Course).....	1	3	2				1	1	3		*	*	*	*		5
<i>ab</i> Oriental Languages.....	1	3	2				1	1	2	2		*	*	*		3
<i>a</i> Paleontology.....	1	3	2				1	1	2	2		*	*	*		3
Philosophy.....	1	3	2				1	1	2	2	*	*	*	*		5
<i>ab</i> Physical Education & Hygiene.....	1	3	2				1	1	2	2		*	*	*		2
Physics (and <i>ab</i> Optometry).....	1	3	2				1	1	2	2						1
Political Science.....	3	3	2				1	1	2	2						3
Pre-Dental.....	1	3	2				1	1	4							3
Pre-Legal.....	1	3	2				1	1								4
Pre-Medical.....	1	3	2				1	1	2	2		3				3
Psychology.....	1	3	2				1	1	2	2			*	*		3
<i>a</i> Public Health (Hygiene).....	1	3	2				1	1	*	2		*	*	*		5
<i>ab</i> Public Speaking.....	1	3	2				1	1	2	2	*	*	*	*		3
<i>a</i> Semitic Languages.....	1	3	2				1	1	2	3			*	*		3
<i>a</i> Slavic Languages.....	2	4	2				1	1	2	2	*	*	4	*		3
<i>a</i> Social Institutions.....	1	3	2				1	1	2	2		*	*	*		1
Spanish (and <i>ab</i> Portuguese).....	1	3	2				1	1					2	4		3
Zoology.....	1	3	2				1	1	2	2			2			1
Teachers College:																
Art.....	2	3	2				1	1	4	*						2
Commerce.....	1	3	2	1			1	1	2	*				*		3
Education.....	3	3	2				1	1	4	*			*	*		1
Home Economics.....	1	3	2				1	1	*	2			*	*		5
Mechanic Arts.....	1	3	2				1	1	2	2			*	*		2
Music.....	1	3	2				1	1	2	*			*	*		3
Physical Education.....	1	3	2				1	1	2	*		*	*	*		5
College of Agriculture:																
Subtropical Horticulture.....	1	3	2				1	1	*	*			2			4
<i>a</i> Forestry; Landscape Design.....	1	4	2				1	1	*	*			2			1
<i>a</i> Other Agricultural Curricula.....	1	3	2				1	1	*	*			2			4
<i>ab</i> College of Chemistry.....	1	3	2				1	1	2	2					1	1
<i>ab</i> College of Commerce.....	1	3	2	1			1	1	2	*				*		3
<i>ab</i> College of Engineering.....	1	3	2				1	1	*	2				*		2
<i>ab</i> College of Mining.....	1	3	2				1	1	*	2				*		4

regular sessions, are: physics, 1 unit; chemistry, 1 unit; algebraic theory, $\frac{1}{2}$ unit; and freehand drawing, 1 unit. Instruction in these subjects may from time to time be provided by the University in the Extension Division or in the Summer Session.

A candidate for admission to professional curricula in Berkeley and elsewhere should consult pages 84, 85 of this Circular and the appropriate announcements listed on pages 2 and 3 of cover.

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

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

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

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

PLAN I—ADMISSION TO FRESHMAN STANDING BY CERTIFICATE

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.

[‡] 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.

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 29.

3. *Grades.*—The applicant's record must show that he has attained first or second grades (A, B) in at least eight units (or sixteen half-units) of the subjects specified in requirements (a) to (f) inclusive. In the remaining seven units of subjects prescribed for admission, first, second, or third grades (A, B, C) will be acceptable; but no subject in which the applicant has received the fourth or lowest passing grade (D) may be counted in the total of fifteen units required for admission.

This requirement as to grades is based on a system of four passing grades (A, B, C, D).

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

A grade earned by an applicant prior to March 1, 1931, by repeating a course may be counted toward the requirement of eight units of first or second grades in subjects (a) to (f). But a grade earned after March 1, 1931, by repetition of a course will not be accepted in this way.

Repeated courses in which the applicant has earned grade "C" (third grade) or higher will be accepted in fulfillment of specific subject requirements. For example, the applicant who earned grade "D," "E," or "F" in elementary algebra in either semester may repeat the work of that semester with the expectation that if he attains grade "C" or higher upon repetition he will be regarded as having fulfilled the specific subject requirement in elementary algebra. The applicant, however, will find it necessary to present an additional half unit of grade "A" or "B" in another acceptable subject to offset the absence of a satisfactory grade in elementary algebra.

A grade of "A" or "B" in continuation or advanced courses will not serve to validate a grade of "C" or below in the elementary or earlier courses in the same subject.

Acceptance of Post-Graduate Work.—Post-graduate work completed in an accredited secondary school and properly certified in connection with the regular high school record of an applicant will be acceptable under the 1931 plan of admission to freshman standing both for subject and for grade requirements.

ADMISSION TO FRESHMAN STANDING BY CERTIFICATE (Old Plan)

An applicant who graduated from an accredited high school in California February, 1931, or before, may be admitted to freshman standing in the University of California without examination provided he pre-

sents the unqualified recommendation of the principal and *in addition* a statement of the principal of the school that he was entitled to the recommendation *at the time of his graduation from the school*.

PLAN II—ADMISSION TO FRESHMAN STANDING BY EXAMINATION

A. In the Deficient Subjects

A graduate of an accredited high school who is unable to qualify fully for admission by certificate and whose inability consists solely of a limited number 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

A graduate of an accredited high school 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 29 may in the discretion of the Board of Admission 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 29, 30) 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) or *The High School Program*.

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

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 29). 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 1932, June 20-25.

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 Office of Admissions, 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 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

An applicant for admission to advanced standing in the University 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

* 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.

Admissions all the requirements for junior standing in the college of the University to which he seeks admission. This provision does not apply after September, 1933.

B. The applicant must present evidence that he has completed the prescribed subjects of *The High School Program* (see page 29) and that he attained in these subjects the grades required of applicants for admission without examination to freshman standing (see page 35). 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 subject deficiencies existing at the time of graduation from high school will yield no credit towards advanced standing in the University, but the grades received in such courses will be considered 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 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 held 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 Mexico, Central America, South America, Europe, and Asia in April of each year. Requests for examinations in other places must reach the Secretary of the Board not

later than December 1 of the preceding year. Applications and other communications should be addressed to the College Entrance Examination Board, 431 West 117th street, New York City. The cable address is Exambord, New York.

LANGUAGE CREDIT FOR A FOREIGN STUDENT

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

SURPLUS MATRICULATION CREDIT

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

TEACHING EXPERIENCE

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

ADMISSION OF SPECIAL STUDENTS

Special students are students of mature years who have not had the opportunity to complete a satisfactory high school 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 in 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, 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 are usually 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 Office of Admissions.

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 and from physical education.

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 Associate Director of Admissions; 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 showing that the applicant has been enrolled in the University; (2) enrolling in courses according to instructions which will be posted.

MEDICAL EXAMINATION

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

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 Associate Director of Admissions and the dean of the college to which admission is sought.

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

CLASSIFICATION OF STUDENTS

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

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

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

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 Associate Director of Admissions 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 52 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 and in Teachers College, and 130 in the College of Agriculture, distributed according to the requirements of the college, is necessary for a degree.

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

In the College of Agriculture regular freshmen and sophomores who are free from deficiencies in the work of the previous half-year, and who are in good academic standing may register for not more than 19 units of new work. Juniors and seniors are limited to 18 units of new work. Regular students with deficiencies will be limited to 16 units, including repeated work.

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

If 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.

* 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.

SUBJECT A: ENGLISH COMPOSITION

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

2. The examination in Subject A will be given at the opening of each half-year and at the opening of the Summer Session (see Registration Circular to 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. 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 a course in English Composition, 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,* following 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

* 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.

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.

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 Vice-President and Provost of the University of California at Los Angeles, the dean will suspend the student from the University for the remainder of the half-year, and will notify the Recorder. On recommendation of the professor in charge of the work, and with the approval of the Vice-President and Provost, the dean is authorized to reinstate the student and will notify the 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 courses in a systematic manner.

Any instructor, with the approval of the Vice-President and Provost of the University of California at Los Angeles, may at any time exclude from his course any student who, in his judgment, has neglected the work of the course. Any student thus excluded shall be recorded as having failed in the course of study from which he is excluded, unless the faculty shall otherwise determine.

EXAMINATIONS

Final examinations are required in all undergraduate courses except laboratory courses and such other courses as, in the opinion of the Committee on Courses, because of resemblance to laboratory courses, require special treatment. In laboratory courses final examinations are held at the option of the department in charge. All examinations shall, so far as practicable, be conducted in writing. In advance of each, a maximum time shall be set which no candidate shall be allowed to exceed. The time for examination sessions shall not be more than three hours.

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

No student will be excused from assigned examinations.

Any student tardy at an examination 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, D, or F in any course is not allowed a reexamination.

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

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

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 condition.

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 for all courses undertaken after January, 1930.

CONDITIONS AND FAILURES

For the removal of a condition a student may, on petition, have the privilege of either a reexamination with the class next repeating the subject or a special examination out of class; in courses of the Summer Session, however, reexaminations for the removal of deficiencies are not

provided. For every such examination a formal permit, to be obtained in advance on petition filed with the 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 \$2.00 is charged, save that there is no fee for a reexamination (final examination taken with a class), provided the final examination be the only task required by the instructor for the removal of the condition. The fee for two or more special examinations undertaken to remove conditions during a single half-year will not exceed \$3.00. A form of petition for a special examination or for admission to an examination with a class, together with instructions for procedure, may be obtained from the 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.

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

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

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

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

SCHOLARSHIP RULES: DISMISSAL FOR FAILURE TO MEET MINIMUM REQUIREMENTS

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

(1) *Academic Warning*: Any student whose record at the close of either regular semester shows a total deficiency of 10 to 15 grade points shall be placed on warning.

(2) *Probation*: Any student shall be placed on probation if while on warning he fails to maintain at least a "C" average. Any student shall be placed on probation if at the close of either regular semester his record shows a total deficiency of more than 15 grade points.

(3) *Dismissal*: Any student shall be dismissed from the University if while on probation he fails to maintain at least a "C" average. Moreover, any student whose record for any regular semester falls below a "D" average becomes liable to dismissal from the University. A student dismissed for unsatisfactory scholarship will be excluded from the University for an indefinite period, with the presumption that his connection with the University will be ended by such exclusion.

Students who become subject to any of the above provisions also become subject to the supervision of the Committee on Reinstatement.

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 warning or 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 tran-

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

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 Vice-President and Provost customarily refers cases of student delinquencies, including cases of cheating and dishonesty in examinations and classroom work. The committee reports to him 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 in this Circular under headings of the several colleges, 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 his statement from the State Board, and in part upon the general University requirements in military science, physical education, Subject A, and American Institutions.

Senior Residence.—Every candidate for the bachelor's degree is required to enroll during the senior or final year of residence in that college of the University in which the degree is to be taken. 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 the University.

FEES*

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

The incidental fee, \$22.00, 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, 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.

* 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.

Students registering for less than five units of work will have half the incidental fee (\$11.00) refunded shortly 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. This fee is in addition to the incidental fee.

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 registration. 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.

* There follows a reprint of the resolution adopted by the Regents of the University, April 12, 1932, in accordance with the provisions of Section 13944, 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 (1) year immediately preceding the opening day of 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 provided further, that every student shall be deemed to be a resident student who is either—

"(a) A citizen of the United States, or any person who prior to the opening day of the semester during which he proposes to attend the University has made a valid declaration of his intention to become 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 immediately preceding the opening day of the semester during which he proposes to attend the University 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, or a minor child, who, prior to the opening day of the semester during which he proposes to attend the University, has made a valid declaration of his intention to become a citizen of the United States, who does not receive and has not for a period of more than one (1) year immediately preceding the opening day of the semester during which he proposes to attend the University received, directly or indirectly, any support or financial assistance from his father, provided such minor lives with his mother, who is and has been for a period of more than one (1) year immediately preceding the opening day of such semester actually present in the State of California with the intention of making her permanent home therein.

"Every person who has been, or who shall hereafter be, 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-residence 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 any female who has contracted a lawful marriage and is of the age of eighteen or over, shall be deemed to be of the age of majority and to be an adult person for the purpose of entering into any engagement or transaction respecting property or her estate, or for the purpose of entering into any contract, the same as if she was twenty-one years of age."

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

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

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, \$1.00. (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.

For reinstatement of lapsed status, \$5.00.

For duplicate registration card, \$1.00.

For late application for teaching assignment, \$1.00.

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

Laboratory and Departmental Fees.—In laboratory and certain other courses, a charge is made to cover materials used. Students should refer to the 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 \$2.00 is required on each locker padlock issued to a student, a faculty member, or an officer of the University; a deposit of \$1.00 is required for each key. This deposit is refunded in full upon return of the key or padlock.

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

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

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 \$22.00

To end of first week.....	Refund \$17.50
From first week to end of third week.....	Refund 11.00
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. On account of the limited number of scholarships available, for the present the committee must restrict award to students who have been in attendance at least a half-year. The Committee rates all candidates as to scholarship, need, and character, and bases its recommendations upon relative ratings of all the candidates applying at any one time. Applications for these scholarships with letters and testimonials relating to them, should be filed with the Recorder on or before the 25th day of March preceding the

academic year for which the awards are to be made; if received later they will not ordinarily be considered until the following year. A blank form of application which gives all the necessary information may be obtained from the Recorder.

The scholarships awarded for the year 1932-33 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, and one of \$75.

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 \$250, to be awarded to "the best qualified male student."

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

Cercle Français Scholarship of \$50.

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

LOANS

Various organizations and individuals have contributed toward the building up of several student loan funds. The gifts for this purpose are administered by the University in accordance with the conditions laid down by the donors, and are sufficient to make small loans, for short periods of time and usually without interest, to students in an emergency. For further information, apply to the Dean of Men or the Dean of Women.

PRIZES

The following prizes were awarded in the year 1931-32:

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

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

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

Literary Review Prize.—Awarded for the best contribution of prose or poetry to the Literary Review during the year.

Essay Prize of a Friend of the University.—Awarded for the best essay upon the topic (for 1931-32) "What are the Factors of a Good Life?"

Pi Delta Phi Prize.—Awarded for the best French essay.

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

MISCELLANEOUS

LIVING ACCOMMODATIONS

Mira Hershey Hall, made available by the will of the late Miss Mira Hershey, is the only dormitory maintained by the University. It will accommodate one hundred thirty-one, and is limited to women students. It is conveniently located on the campus. Board and room will be furnished residents of this hall for \$45.00 per month. Due to the limited number to be accommodated, early reservations, accompanied by a deposit of \$10, should be made at the office of the Dean of Women.

The cost of board and lodging in boarding houses will probably be from \$45.00 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 expenses 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 village, 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.

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

The ordinary yearly expenses of a student will probably be at least \$750.00.

EMPLOYMENT

ALUMNI BUREAU OF OCCUPATIONS

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

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

should come to Los Angeles expecting to become self-supporting at once but should have on hand sufficient funds to cover the expenses of at least the first half-year.

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

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

The Alumni Bureau of Occupations also places graduates in full-time positions.

APPOINTMENT OFFICE FOR TEACHERS

Applicants for employment in teaching or tutoring should apply at the office of the Appointment Secretary, 123 Education Building. Upon the request of school officials the Appointment Secretary recommends teachers who, in the opinion of the Faculty, are able to fill satisfactorily the positions for which teachers are being sought. To do this it is necessary that the Appointment Secretary have detailed information concerning the vacancies to be filled. The Secretary makes every endeavor to assist applicants to obtain positions of the kind for which they are best fitted. Students are urged to make occasional calls at the office of the Appointment Secretary throughout their entire course. There is no expense to the school officials seeking teachers for the service rendered by this office.

LIBRARY, GYMNASIUM, MEDICAL FACILITIES

THE LIBRARY

The Library has 182,000 volumes that are accessioned; approximately 1400 periodicals and continuations are regularly received.

The Library is open daily. From Monday to Friday, inclusive, the hours are from 7:45 a.m. to 10 p.m.; Saturday, from 7:45 a.m. to 5 p.m.; Sunday, from 2 p.m. to 5 p.m. The reading rooms accommodate about 900 students.

GYMNASIUM AND ATHLETIC FACILITIES

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

MEDICAL FACILITIES

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

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.

UNIVERSITY RELIGIOUS CENTER

In the immediate vicinity of the campus, at 10845 Le Conte Avenue, is the University Religious Center where official representatives of the Jewish, Catholic, Episcopal, Methodist, Presbyterian, Baptist, Congregational, Disciple, Lutheran, Unitarian, and Latter Day Saints denominations and the Y.M.C.A. have their student headquarters. This common center is always open to all students for counsel and for religious activities. Here are held religious discussion groups, lectures, Bible classes, social gatherings, luncheons, dinners, and other student meetings.

PUBLIC LECTURES, CONCERTS, AND ART EXHIBITIONS

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

The musical cultivation of the University body is served by numerous concerts, free to the public as well. The University Organ, installed in 1930 as the gift of an unnamed donor, makes possible the offering of a regular series of programs, in 1931-32 comprising seventy week-day noon recitals, and forty weekly Sunday concerts, besides special concerts, and much music incidental to other gatherings. Besides the organ, there are special concerts, which in 1931-32 included Christmas music sung by the University A Capella Choir, two recitals by the Bartlett-Frankel Quartet of Los Angeles, one by the Angermeyer String Quartet, one by the Reher Quartet, a concert by Les Voyageurs, and a concert by the Pro Arte String Quartet.

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

THE ASSOCIATED STUDENTS

The extra-curricular activities are administered and controlled by the Associated Students. The organization has an executive council composed of a president, two vice-presidents, two representatives of groups, and the chairmen of five activity boards. The activity boards control the activities in definite fields, such as debating, athletics, dramatics and publications; while the Council coördinates the work of these boards and administers the general business of the Association.

The 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 Vice-President and Provost as to innocence or guilt and as to suitable penalties in cases of misconduct among the students.

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

The California Daily Bruin and *The Southern Campus* are the official publications of the students. *The California Daily Bruin* contains news of all campus and college activities, official University announcements, and is 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

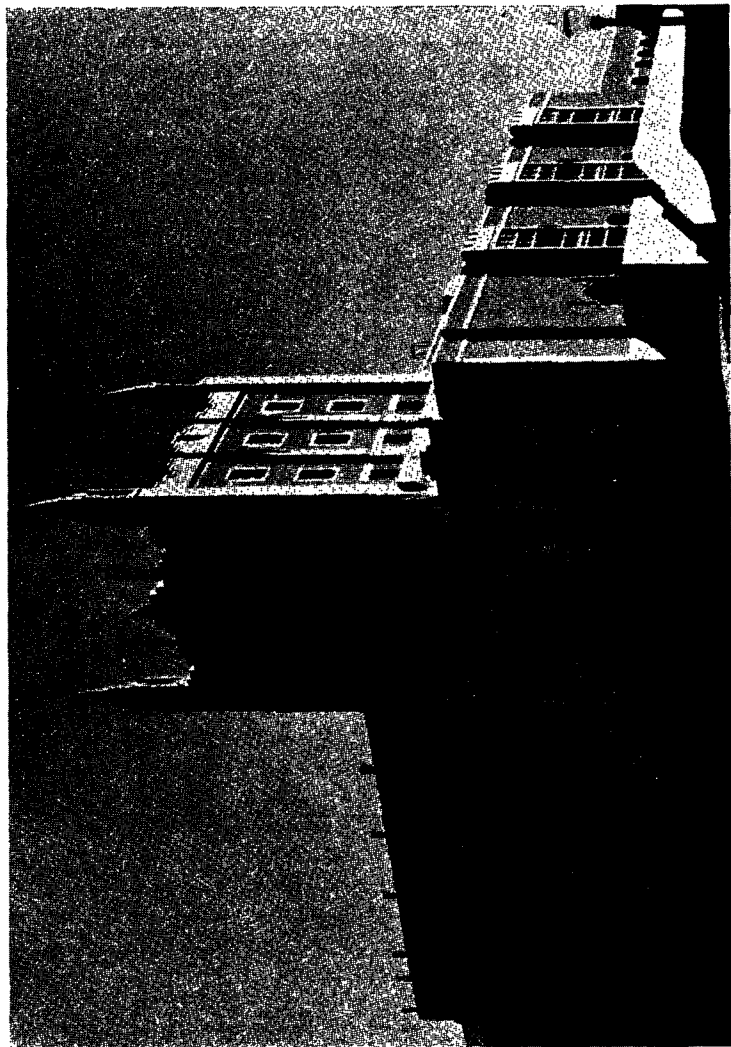


Photo. by L. D. Barber

KERCKHOFF HALL

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 \$35, regardless of the number of courses taken.

The Announcement of the Summer Session, issued in January of each year, may be obtained by addressing University of California 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 801 Hillstreet Building.

* The Summer Session in Subtropical Horticulture will be held in Riverside in the summer of 1932; thereafter announcements of the Summer Session in Los Angeles should be consulted.

CURRICULA

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

COLLEGE OF LETTERS AND SCIENCE

The curriculum of the College of Letters and Science 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

Junior Certificate Requirements

The work of the lower division comprises the studies of the freshman and sophomore years. The junior certificate in the College of Letters and Science is required for admission to the upper division.

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, includ-

ing the proscribed 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.

(b) *Foreign Language.* At least 15 units in not more than two languages. Each year of high school work in a foreign language will be counted in satisfaction of 3 units of this requirement, without, however, reducing the total number of units required for the junior certificate (60) or for the degree (124). Courses given in English by a foreign language department will not be accepted in fulfillment of this requirement.

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

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

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

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

Astronomy 1, 11.

Bacteriology 1.

Biology 1, 12.

Botany 1*, 2*.

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

Geography 3.

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

Paleontology 1.

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

Physiology (1, 2)*.

Zoology 1A*, 1B*.

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

† 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 46 of this circular.

below, nor may courses of the summer session be counted on this requirement.

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

Group 1—English and Public Speaking

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

Group 2—Foreign Languages

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

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

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

Latin: two consecutive courses from the following: A, B, AB, 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 from the following: A, B, C, D, CD, 50A-50B.

Group 3—Mathematics

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

Group 4—Social Sciences

Economics 1A-1B.

History 8A-8B.

Geography 1A-1B.

Political Science 3A-3B.

History 4A-4B.

Psychology 1A-1B.

History 5A-5B.

Group 5—Philosophy

Philosophy 1A-1B.

Philosophy 3A-3B.

Philosophy 2A-2B.

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."

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) may not be taken in the summer sessions.

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

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. 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	5 units*
2 years of high school work	B	5 units
3 years of high school work	C or CD	3 units 5 units
4 years of high school work	D	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 73.

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

* Only 2 units will be allowed toward junior certificate requirements (b) or (e).

(see page 72). Not more than six units in courses numbered in the 300 and 400 series will be accepted toward the A.B. degree.

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 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 50.

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 must be completed in upper division courses selected from the Letters and Science List of Courses (see page 72).

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, M	Spanish, M
History, M	Zoology, M
Household Science, M	

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

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

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. The regulation applies to students entering this University from other institutions or from the University of California Extension Division, and to students transferring from other colleges of this University.

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

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

Students who fail in the lower division to attain an average of one grade point for each unit of work taken in any department may be denied the privilege of a major in that department.

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

10. Students who transfer to the University of California at Los Angeles from other institutions or from the University of California Extension Division 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 (1) of courses taken *in resident instruction* at this or another university (fall, spring, and summer sessions), and (2) of courses taken in the University of California Extension Division with numbers having the prefix XL, XB, or X.

The student must attain an average grade of C (1 grade-point per unit) in all courses offered as a part of the 24-unit major.

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

See further under Regulations for Study-Lists on page 45.

MINORS

No minors are required for the A.B. degree. Students wishing to qualify for the General Secondary Credential are referred to the Announcement of Courses of the University of California at Los Angeles, page 41, paragraph 4, and to the Announcement of the School of Education, University of California, Berkeley. The minors for the General Secondary Credential should not be confused with "Minors in Teachers College" (see page 91).

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 1931-32.

Art. 1, 2A-2B, 4A-4B, 22N, 31A-31B, 32A-32B, 101, 131A-131B, 134A-134B, 154, 161.

Astronomy. All undergraduate courses.

Biological Sciences. All undergraduate courses.

Chemistry. All undergraduate courses except 10.

Classical Languages. All undergraduate courses.

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

Education. 103, 121, 122, 128, 130, 170, 189.

English:

English. All undergraduate courses except 161.

Public Speaking. All undergraduate courses except 10c-10d 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.

Civil Engineering. All undergraduate courses.

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

Military Science and Tactics. All undergraduate courses.

Music. 1A-1B, 2A-2B, 4A-4B, 9ABCD, 10ABCD, 55A-55B, 101, 105, 113A-113B, 118ABCD.

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 chairman of departments.
3. A student who gains honorable mention has thereby attained the honors status for his first semester in the upper division.

Honor Students in the Upper Division—

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

Honors with the Bachelor's Degree—

1. Honors are granted at graduation only to students who have completed the major with distinction, and who have a general record satisfactory to the Committee on Honors.
2. Before Commencement each department determines, by such means as it deems best (for example, by means of a general final examination), what students it will recommend for honors at graduation, and reports its recommendations to the 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-CHEMISTRY

In addition to the major in chemistry in the College of Letters and Science, the department offers the first two years of the curriculum of the College of Chemistry, leading to the B.S. degree. To complete this curriculum, the student must transfer to the University of California at Berkeley at the end of the second year. For information regarding his program, the student should consult the pre-chemistry adviser.

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

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

PRE-COMMERCE

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

The requirements for the junior certificate in Commerce are as follows:

Foreign languages: students must pass an examination (designated Subject B) designed to test their ability to read one of the following languages: Greek, Latin, German, French, Spanish, Italian, Russian, Japanese, Chinese, or the Scandinavian languages. 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

† An examination in Subject A (English Composition) is required of all undergraduate entrants at the time of their first registration in the University. For further regulations concerning Subject A see pages 46 and 47 of this Circular.

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 9

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.

Mathematics:

Elementary Algebra and Plane Geometry (matriculation requirement).

*Mathematics 2 (Mathematics of Finance) 3

Economics:

Economics 1A-1B 6

Military Science, Physical Education 8

Electives 20

Total 64 units

The college courses acceptable as natural science are the following:

Astronomy 1, 11

Bacteriology 1

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

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

CURRICULUM A: FIVE YEARS

PROGRAM OF FIRST YEAR
(At Los Angeles or Berkeley)

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 1, 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 67), or a foreign language (at least 5 units).

Electives from Letters and Science List of Courses (page 72).

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

CURRICULUM B: SIX YEARS

FIRST AND SECOND YEARS
(At Los Angeles or Berkeley)

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

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

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

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 1, Physics 2A, Physics 2B, Zoology 1A, Zoology 1B. In special cases engineering physics may be used to fulfill 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 page 66).

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

PRE-ENGINEERING CURRICULA

CIVIL ENGINEERING

FRESHMAN		Units	SOPHOMORE		Units
†Subject A .....	.....	.....	Mil. 2A-2B	1½	1½
Mil. 1A-1B	1½	1½	Physical Education	8	8
Physical Education	8	8	Mathematics 3C-4B	6	8
Mathematics 8-8A	8	8	Mechanics 2	8	8
Physics 1A-1B	8	8	Astronomy 3	1	1
Chemistry 1A-1B	5	5	Civil Engineering 8	2	2
Civil Engineering 11A-11B	2	2	Physics 1C-1D	8	8
Civil Engineering 1FA-1FB	1	1	Geology 1A	8	.....
Civil Engineering 8 (a.s.) .....	.....	(8)			
	16	16			
			RAILROAD AND IRRIGATION		
			Mechanics 1	8	.....
			Elective .....	.....	.....
				*	*

SANITARY AND MUNICIPAL

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

MECHANICAL, ELECTRICAL, AND AGRICULTURAL ENGINEERING

FRESHMAN		Units	SOPHOMORE		Units
Subject A .....	.....	.....	Mil 2A-2B	1½	1½
Mil. 1A-1B	1½	1½	Physical Education	8	8
Physical Education	8	8	Mathematics 4A-4B	8	8
Mathematics 8, 8AB	8	6	Mathematics 10A-10B	2	2
Physics 1A-1B	8	8	Physics 1C-1D	8	8
Chemistry 1A-1B	5	5	Mech. Engineering 10A-10B	2	2
Civil Eng. 11A and 1FA or			Mech. Engineering 2	8	.....
Mech. Engineering 6	8	.....	American Inst. 101 .....	.....	2
	16	16	Electives .....	.....	.....
				*	*

* 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.

‡ Students intending to major in Agricultural Engineering should omit Mechanical Engineering 10A-10B and American Institutions 101, and adjust their programs so as to include Mechanical Engineering as well as Civil Engineering 11A and 1FA, and in addition Economics 1A-1B and Geology 1A.

PRE-LEGAL CURRICULUM

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

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

The Hastings College of the Law offers a curriculum of three years leading to the degree of Bachelor of Laws; admission to this college is limited to holders of the junior certificate or its equivalent. The College of Letters and Science of the University of California at Los Angeles grants this junior certificate upon completion of the requirements stated on page 66 of this Circular.

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.

<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
Chemistry 1A-1B	5	5
¹ English 1A-1B	3	3
² Foreign language	5	3 or 5
Electives as necessary to make up units	---	---
	16	16
<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
Chemistry 8A	3	---
Chemistry 5	---	3
	16	16
<i>Third Year</i>		
American Institutions 101	2	---
Physics 2A-2B	4	4
Electives	10	12
	16	16

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

² Foreign Language. The Medical School requirement is 10 units of credit in either French or German, and the junior certificate requirement is 15 units of foreign language in not more than two languages. These may be satisfied partly in the high school. The student's program should be made to satisfy these requirements.

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).....	1½	1½
Military Science	½	½
Physical Education	5	5
Chemistry 1A-1B	3	3
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>		
Military Science	1½	1½
Physical Education	½	½
Zoology 1A-1B	5	5
Chemistry 8A	3	---
Chemistry 5	---	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-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

¹ See foot-note on page 80.

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.

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

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 Los Angeles or Berkeley, 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 84 of this Circular concerning curricula in Public Health, Public Health Nursing, and Nursing Education.

* Normal total, 18 units.

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

§ Mechanical Engineering 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.

FIVE-YEAR CURRICULUM

(Combined College and Nursing Course)

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

FIRST YEAR		Units	SECOND YEAR		Units
Subject A (see p. 46).....	---	---	Physical Education	$\frac{1}{2}$	$\frac{1}{2}$
Physical Education	$\frac{1}{2}$	$\frac{1}{2}$	Physiology 2	2	---
Physiology 1	---	8	Economics 1A-1B	8	8
Chemistry 1A-1B	5	5	Psychology 1A-1B	8	8
†Electives	---	---	Zoology 85	8	---
	*	*	Bacteriology 1	---	4
			†Electives	---	---
				*	*

PRE-OPTOMETRY

The University offers a four-year program with a major in physics-optometry, leading to the degree of Bachelor of Arts and the Certificate in Optometry. The first two years may be taken at Los Angeles; the last two must be taken at Berkeley. The following curriculum outline should be followed, with such choice of electives as will meet the requirement for the junior certificate in the College of Letters and Science (see pages 66-69).

FIRST YEAR		Units first semester	Units second semester
Subject A (see page 46).....			
Military Science 1A-1B		1½ or 0	1½ or 0
Physical Education		$\frac{1}{2}$	$\frac{1}{2}$
Chemistry 1A-1B		5	5
English 1A-1B		3	3
Mathematics 5		---	3
Physics 2A-2B		3	3
Electives		---	---
Normal total		16	16
SECOND YEAR			
Military Science 2A-2B		1½ or 0	1½ or 0
Physical Education		$\frac{1}{2}$	$\frac{1}{2}$
Psychology 1A		---	3
Physics 3A-3B		1	1
Physiology 1, 2		3	2
Foreign Language		5	5
Electives		---	---
Normal total		16	16

* Normal total, 16 units.

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

PROFESSIONAL CURRICULA IN OTHER DIVISIONS OF THE UNIVERSITY

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

Librarianship.—The School of Librarianship in Berkeley offers a curriculum of two years subsequent to the bachelor's degree, leading at the end of the first year to the Certificate in Librarianship, and at the end of the second year to the degree of Master of Arts. The bachelor's degree may be obtained in the College of Letters and Science of the University of California at Los Angeles.

Pharmacy.—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.

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.

JOURNALISM

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

THE TEACHERS COLLEGE

The Teachers College is organized on the basis of four years of combined academic and professional work dealing to the degree of Bachelor of Education and one or more of the following teaching credentials:

1. The Kindergarten-Primary Credential, valid in the kindergarten and grades one, two and three of the elementary school.
2. The Elementary Credential, valid in the eight grades of the elementary school.
3. The Junior High Credential, valid in the junior high school.
4. The Secondary Special Oredential 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 124 units of credit with corresponding grade points.
- II. Presentation of a certificate of physical fitness from the Medical Examiners of the University of California at Los Angeles.
- III. Recommendation of the major department and of the Department of Education.
- IV. Satisfactory completion of the following program:
 1. Lower Division.

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

- (a) General University requirements:

Subject A.

Military Science and Tactics, 6 units (men).

Physical Education, 2 units.

- (b) Foreign Language. At least 15 units in not more than two languages. Each year of high school work in a foreign language will count in satisfaction of 3 units of this requirement but will not reduce the number of units required for the junior certificate or the degree.

- (c) Matriculation Mathematics. Elementary Algebra and Geometry. Instruction in these subjects is not given in the fall or spring sessions of the University.

- (d) Natural Science. Twelve units chosen from the following list, at least 2 units of which must include laboratory work. (Courses marked with an asterisk meet the laboratory requirement.) Physics and Chemistry taken in the high school will each count in satisfaction of 3 units of this requirement but will not reduce the number of units for the junior certificate or the degree.

High School Physics*.

High School Chemistry*.

Astronomy 1, 11.

Bacteriology 1.

Biology 1, 12.

Botany 1*, 2*.

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

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

Geography 3.

Paleontology 1.

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

Physiology 1*, 2*.

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, 2A-2B, 3A-3B.

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

2. Upper Division.

- (a) The junior certificate is required as a prerequisite to registration in the upper division, except for students who have been granted 60 or more units of advanced standing.

- (b) The student must complete at least 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 in 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 elementary and kindergarten-primary credentials or the elementary and junior high school credentials.

Majors in Art, Commerce, Home Economics, Mechanic Arts, Music and Physical Education prepare the student to teach these subjects in the secondary schools, and lead to the special secondary credential. By careful planning it is possible for major students in these fields to qualify for the junior high school credential. Requirements for both special secondary and elementary credentials cannot ordinarily be met within the limits of the four-year course.

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

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

- (f) In addition to the major, two minors are required. A minor is defined as from 12 to 18 units of coördinated courses in any University department. Students majoring in Art, Commerce, Home Economics, Mechanic Arts, Music, and Physical Education must complete as one minor 18 units of approved courses in Education.

MAJORS IN THE TEACHERS COLLEGE

EDUCATION

1. Leading to the Kindergarten-Primary Credential—

Examination in Music: An examination in piano and voice is required before the junior certificate is awarded. The student must show ability to sing and play music such as "Songs for the Little Child" by Kohlsaet and Baker, and music for rhythmic interpretation of the type in "Robinson's School Rhythms."

a. *Preparation for the Major.*—Art 22N, 30K; Biology 1, 12; Psychology 1A, 1B; Physical Education 111K.

b. *The Major.*—Education 100K, 101K, 102, 103, 104K, 106A, 106B; Teaching K190A, K190B.

c. Majors in Kindergarten-Primary Education may qualify for the Elementary Credential upon the completion of Geography 1A, 1B; History 39; Mathematics 19; Education 130*.

2. Leading to the Elementary Credential—

a. *Preparation for the Major.*—Art 22N, 30B; Geography 1A, 1B; History 39; Mathematics 19; Music 60; Psychology 1A, 1B; Physical Education 111E.

b. *The Major.*—Education 100E, 101E, 102, 103, 104E; Teaching E190A, E190B.

c. Majors in 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.*

ART

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

The Major, leading to the Secondary Special Teaching Credential in Art.—Art 31A, 31B, 32B, 101, 165A, 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.

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

COMMERCE

Preparation for the Major.—Economics 1A, 1B, 14A, 14B, 15A, or 15B; Commerce 16, 17, 18A, 18B; Political Science 18A, 18B; Geography 5A, 5B; History 75 or 76.

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

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

HOME ECONOMICS

Preparation for the Major.—Home Economics 1A, 1B, 11A, 11B, 43A; Art 22N, 13; Chemistry 2A, 2B, 10; Physiology 1, Economics 1A.

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

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

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.

MECHANIC ARTS

Preparation for the Major.—Physics 2A, 2B; Mechanical Engineering D; Mechanic Arts 10, 11, 40, 51, 65A, 65B, 75A, 80A, 92A, 92B.

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, 164, 170; Directed Teaching, 6–10 units; Mechanic Arts 190.

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

MUSIC

Preparation for the Major.—Music 1A, 1B, 2A, 2B, 4A, 4B, 7A, 7B, 8A, 8B, 55A, 55B.

The Major, leading to the Secondary Special Credential in Music.—Music 101, 105, 109A, 109B, 113A, 113B, 114A, 114B.

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

PHYSICAL EDUCATION FOR MEN

Preparation for the Major.—High school chemistry or Chemistry 2A or Zoology 1A; Physiology 1; Biology 1; Zoology 35; Physical Education 1, 3 (2 units), 5, 29A–B–C–D, 55.

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

The Minor in Education.—Education 102, 103, 170; Directed Teaching, 6–10 units, Physical Education 154, 155A, 155B.

PHYSICAL EDUCATION FOR WOMEN

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, 140, 149, 175, 180A, 180B, 181A, 181B, 182, 183, 190, 192, 199.

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

MINORS IN THE TEACHERS COLLEGE

ART

1. (Kindergarten and Elementary) Art 1, 2B, 4B, 8B, 21, 22N, 30K or 30E, and 4 units of elective courses as approved by the Art Department.
2. (Home Economics) Art 1, 13, 21, 22N, 101, 156A, 158, and 4 units of elective courses as approved by the Art Department.

ASTRONOMY

Twelve units of astronomy, at least six of which must be in upper division courses including Astronomy 103A, 103B.

BIOLOGICAL SCIENCES

Botany 1, 2, 104A, 104B, or 105A, 105B.

Zoology 1A, 1B, 112, 113.

CHEMISTRY

Chemistry 1A, 1B, or 2A, 2B; 6 units chosen from 5, 8A, 9, 10.

ECONOMICS

Economics 1A, 1B, 6 units of elective upper division economics.

ENGLISH

English 1A, 1B, 56C, 56D, 56E; 6 units of elective upper division English.

PUBLIC SPEAKING

Public Speaking 1A, 1B, 5A, 5B, 110A, 110B, or 2A, 2B, 10A, 10B, 111A, 111B.

FRENCH

French A, B, C, D or the equivalent, 101A, 101B.

GEOGRAPHY

Geography 1A-1B (for commerce majors, 5A-5B), 6 units of elective upper division geography, selected from the Letters and Science list.

GEOLOGY

Geology 1A or 1C, 1B, 107; Paleontology 111.

GERMAN

German A, B, C, D or the equivalent; 6 units of elective credit in upper division German.

HISTORY

History 4A, 4B or 5A, 5B or 8A, 8B; 6 units of elective upper division credit in history.

HOME ECONOMICS

1. Home Economics 1A, 1B, or 2, 162A, 175, 179, or
2. Home Economics 1A, 11A, 32, 43A or 43B, 162A, and 6 units of advanced home economics approved by the department; or
3. Home Economics 11A, 11B, 110, 118A-118B, 120.

LATIN

Latin 1, 5, 102, 106.

MATHEMATICS

Mathematics C, 8, 5 (or 3A), 9A (or 3B), 9B (or 4A); 6 units chosen from 101, 102, 104, 109 (or 4B), 111, 190.

MUSIC

Music 1A, 1B, 2A, 2B, 9A, 9B, 113A, 113B.

PHILOSOPHY

Philosophy 1A, 1B, 2A, 2B, or 3A, 3B; 6 units of upper division credit in philosophy.

PHYSICAL EDUCATION FOR MEN

Physical Education 3 (2 units), 131, 140, 154, and 155A, 155B or 156A, 156B.

PHYSICAL EDUCATION FOR WOMEN

Physical Education 4 (3 units required without repetition of courses), 44, 111, 104, 112, 114A, 114B.

PHYSICS

Physics 1A, 1B, 1C, 1D; one upper division course in physics.

POLITICAL SCIENCE

The preparation for the major, and in addition 6 units of elective credit in upper division political science.

PSYCHOLOGY

Psychology 1A, 1B and 6 units upper division work including 110 or 106A or 106B.

SPANISH

Spanish A, B, C, D or the equivalent, 101A, 101B.

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 73, 74.)

THE BRANCH OF THE COLLEGE OF AGRICULTURE IN SOUTHERN CALIFORNIA

The College of Agriculture of the University of California, through its Branch in Southern California, is prepared at Los Angeles to accept freshman or sophomore students in the Plant Science curriculum who intend to major in Subtropical Horticulture leading to the Bachelor of Science degree. Actual instruction in Agriculture will begin with a lower division course in Subtropical Horticulture in September, 1932. Students with junior standing, transferring from junior colleges or other collegiate institutions, are advised to register at Berkeley or Davis for the year 1932. Instruction in Subtropical Horticulture will be offered during the Summer Session of 1932 at Riverside, and regular instruction in the various courses in Subtropical Horticulture and other upper division courses in Agriculture required in the Plant Science curriculum will begin at Los Angeles in September, 1933.

Students who wish to begin their University work at Los Angeles and later transfer to Berkeley or Davis, to pursue other curricula, or to obtain majors in the Plant Science curriculum other than Subtropical Horticulture, are requested to consult the Prospectus of the College of Agriculture and the adviser for students in Agriculture at Los Angeles.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN AGRICULTURE

PLANT SCIENCE CURRICULUM, MAJOR IN SUBTROPICAL HORTICULTURE

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

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

2. One hundred and thirty semester units of university work in addition to matriculation and in addition to Subject A.* These 130 units must be chosen in accordance with the provisions set forth hereinafter. In addition to the 130 units the student must have attained at least as many grade points or quality units as there may be time units or quantity units in the credit value of all courses undertaken by him in the University of California. For further information concerning grade point requirements see page 50.

* An examination in Subject A (English Composition) is required of all undergraduate intrants at the time of their first registration in the University. For further regulations concerning Subject A, see page 46.

3. Including matriculation,† all students must have completed—ordinarily before the end of the sophomore year—English, 12 units; mathematics, including trigonometry, 9 units.

NOTE.—All requirements listed under the curriculum below are in addition to this requirement.

4. Among the 54 or more units normally taken in the junior and senior years, there must be 36 units in upper division courses, i.e., those numbered 100 to 199.

5. In addition to requirement 3 above every student must complete the requirements as listed under the following curriculum:

PLANT SCIENCE CURRICULUM

(a) Students must complete the following:

	Units
Chemistry	16
Botany and Plant Physiology	12
Physics	6
Bacteriology	4
Economics	6
Geology	3
Genetics	4
Plant Pathology	4
Plant Nutrition	4
Entomology	4
Zoology	4
American Institutions	2
Military and Physical Education	8

77

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

(c) The summer practice course (99) may be prescribed in addition to the above as a major requirement.

FRESHMAN AND SOPHOMORE YEARS

During the freshman and sophomore years the following schedule will normally be followed. Example of the program in the Plant Science curriculum at Los Angeles only is given herein. For example of programs in other curricula of the College of Agriculture students should consult the Prospectus of the College of Agriculture and the adviser for agricultural students at Los Angeles.

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

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

EXAMPLE OF PROGRAM

FRESHMAN YEAR		Units		SOPHOMORE YEAR		Units	
Military Science	1½	1½		Military Science	1½	1½	
Physical Education	2	2		Physical Education	2	2	
Botany 1, 2	4	4		Chemistry 5, 8A; or 8A-8B; or 8A, 9; or 8A-8B.....	8	8	
Chemistry 1A-1B	5	5		Zoology 1A	5	5	
Physics 2A-2B	4	4		Economics 1A-1B	3	3	
*Electives	3	3		Bacteriology 1	4	4	
	18	18		Geology 1A	3	3	
				Subtropical Horticulture 2A- 2B	8	8	
				Elective	2	2	
					18	18	

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

JUNIOR AND SENIOR YEARS

During the junior and senior years the following courses, together with such electives in any department as may be approved by the major adviser, must be completed: Botany 101 and 109 (6 units), Zoology 100A (Genetics) (4 units), †Entomology 124 (4 units), †Plant Pathology 120 (4 units), †Plant Nutrition 110 (4 units), and upper division courses in †Subtropical Horticulture (12 units).

HONORS

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

I. *Honorable Mention with Junior Standing* (i.e., those who have completed 64 units in their freshman and sophomore years).

1. Honorable mention shall be granted with junior standing to students who attain at least:

* Students who have not completed requirement No. 3 in Mathematics or English, page 95, should elect courses to meet this requirement.

† These courses, subject to the completion of classroom and laboratory facilities, will be offered at Los Angeles beginning September, 1933.

- (a) An average of two grade points per unit undertaken; or
 - (b) B grade in three-fourths of the units counted toward junior standing, of which not less than 10 units shall be of grade A.
2. The list of students who receive honorable mention with junior standing shall be sent to the chairman of the study-list officers of the College before the beginning of the next semester.
 3. A student who gains honorable mention has thereby attained the honor status for his first semester in the upper division.

II. *Honor Students in the Upper Division.*

1. An honor list shall be 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.
2. The honor list shall include the names of
 - (a) Students who have received honorable mention with junior standing and who are in their first semester of the upper division.
 - (b) Upper division students who have an average of at least two grade points per unit undertaken for all undergraduate work in the University.
 - (c) Other upper division students specially approved for listing in the honor status by the Committee on Honors, either upon recommendations made to the committee by departments of instruction, or upon such other basis as the committee may determine.
3. The College is authorized to post an honor list on its bulletin board at the beginning of a semester. Copies will be sent by the College to the Committee on Honors and to the Recorder of the Faculties.
4. The College shall have freedom in determining the most efficacious method for the training of honor students.
5. The College may offer special honor courses in reading and research with credit to be determined by the instructors in charge, according to the performance of the individual students, subject to such general restrictions as may be imposed by the College. The work of the student in such an honor course may consist of additional work in connection with regular courses of instruction, or may be independent of such courses.
6. Special honor courses may not be taken by a student whose name is not on the honor list of the College except with the consent of the Committee on Honors.

7. At the discretion of the Dean, an honor student may make study-list changes involving honor courses under suspension of the regulations fixing the time during which such changes are ordinarily permissible, and of the rules requiring fees for such changes; but in every case the student will be expected to complete the organization of his program with all possible diligence, and to report promptly to the Dean concerning proposed changes.
8. Except as specifically provided, all existing regulations for students in the upper division shall apply to honor students.

III. Honors with the Bachelor's Degree.

1. Honors shall be granted at graduation only to students who have completed the major with distinction, and who have a general record satisfactory to the Committee on Honors.
2. Before Commencement the College shall determine by such means as it may deem best (for example, by means of a general final examination), what students it will recommend for honors at graduation, and shall report its recommendations to the Recorder.
3. Students who, in the judgment of the College, 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 students who have 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 College have been awarded shall be published in the Commencement Program.

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- The Announcement of the Curriculum in Social Service.**
- The Announcement of the School of Librarianship.**
- The Catalogue of Officers and Students, Section I (Berkeley Departments).**
Published in September and February. Price, 30 cents.
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- 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. XXVI, No. 2

ANNOUNCEMENT OF COURSES, 1932-33

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

JULY, 1932

**UNIVERSITY OF CALIFORNIA PRESS
BERKELEY, CALIFORNIA**

For Sale by the Students' Cooperative Book Store, Los Angeles

Price, 15 Cents

Administrative Bulletins of the University of California

1932-33. 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, in the Teachers College, and in the Branch of the College of Agriculture in Southern California; 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, Los Angeles, 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 Annual Announcement of the College of Engineering.

The Announcement of the Graduate Division.

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

(Continued on third page of cover)

UNIVERSITY OF CALIFORNIA

ANNOUNCEMENT OF COURSES

UNIVERSITY OF CALIFORNIA
AT LOS ANGELES

FOR THE

ACADEMIC YEAR, 1932-33

JULY, 1932

UNIVERSITY OF CALIFORNIA PRESS
BERKELEY, CALIFORNIA

UNIVERSITY OF CALIFORNIA BULLETIN

A SERIES IN THE ADMINISTRATIVE BULLETINS OF THE UNIVERSITY OF CALIFORNIA. ENTERED JULY 1, 1911, AT THE POST OFFICE AT BERKELEY, CALIFORNIA, AS SECOND-CLASS MATTER, UNDER THE ACT OF CONGRESS OF JULY 16, 1894, ISSUED MONTHLY FROM 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 1932-33

1932

June 3-13, incl.	Final examinations, second half-year, 1931-32.
June 17, Friday	The thirteenth annual commencement at Los Angeles.
June 20-July 16	Summer Course in Surveying.
June 27-Aug. 6	Summer Session in Los Angeles.
Sept. 13, Tuesday	Applications for admission in September, 1932, with complete credentials, should be filed on or before this date to avoid penalty of late application fee.*
Sept. 21, Wednesday	{ 8:30 a.m., Examination in Subject A.
Sept. 22, Thursday	{ 1:30 p.m., Intelligence Test (Teachers College).
Sept. 23, Friday	Consultation with advisers by new students; physical examinations.
Sept. 24, Monday	Registration of old students and re-entrants: 8:00 a.m.-9:30 a.m., initials A-E. 9:30 a.m.-11:00 a.m., initials F-K. 12:00 m.-1:30 p.m., initials L-Q. 1:30 p.m.-3:00 p.m., initials R-Z. 3:00 p.m.-4:00 p.m., all initials.
Sept. 26, Monday	Registration of new students: 8:00 a.m.-9:30 a.m., initials A-L. 9:30 a.m.-11:00 a.m., initials M-Z.
Oct. 1, Saturday	Registration of any student, old or new, 11:00 a.m.-1:00 p.m.
Oct. 3, Monday	Instruction begins.
Oct. 5, Wednesday	Special examination in Subject A.
Oct. 14, Friday	Last day to file registration books or to change study-lists without fee.
Oct. 21, Friday	Instruction in Subject A begins.
Nov. 11, Friday	Last day to add courses to study-lists.
Nov. 19, Saturday	Last day to drop courses from study-lists without penalty of grade F (failure).
Nov. 23-26, incl.	Armistice Day.
Dec. 10 Saturday	End of mid-term period.
Dec. 14, Wednesday	Thanksgiving recess.
	Last day to file without fee applications for supervised teaching.
	Christmas recess begins.

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

1933

Jan. 3, Tuesday	Christmas recess ends.
Jan. 21, Saturday	Final examination in Subject A.
Feb. 8-18, incl.	Final examinations, first half-year, 1932-33.
Feb. 18, Saturday	Last day of first half-year, 1932-33.
Feb. 18, Saturday	Applications for admission in February, 1933, with complete credentials, should be filed on or before this date to avoid penalty of late application fee.†
Feb. 21, Tuesday	{ 8:30 a.m., Examination in Subject A.
Feb. 23, Thursday	{ 1:30 p.m., Intelligence Test (Teachers College).
Feb. 24, Friday	Consultation with advisers by new students; physical examinations.
	Registration of old students and re-entrants:
	8:00 a.m.-9:30 a.m., initials L-Q.
	9:30 a.m.-11:00 a.m., initials R-Z.
	12:00 m.-1:30 p.m., initials A-E.
	1:30 p.m.-3:00 p.m., initials F-K.
	3:00 p.m.-4:00 p.m., all initials.
Feb. 25, Saturday	Registration of new students: 8:00 a.m. to 12:00 m.
	Registration of old students and re-entrants, all initials, 9:30 a.m. to 12:00 m.
Feb. 27, Monday	Instruction begins.
Mar. 4, Saturday	Special examination in Subject A.
Mar. 6, Monday	Last day to file registration books or to change study-lists without fee.
Mar. 8, Wednesday	Instruction in Subject A begins.
Mar. 17, Friday	Last day to add courses to study-lists.
Mar. 23, Thursday	Charter Day.
Mar. 24, Friday	Last day to drop courses from study-lists without penalty of grade F (failure).
Mar. 25, Saturday	Last day to file applications for scholarships for the academic year 1933-34.
April 22, Saturday	End of mid-term period.
April 27-30, incl.	Spring recess.
May 6, Saturday	Last day to file without fee application for supervised teaching.
May 30, Tuesday	Memorial Day (a holiday).
June 3, Saturday	Final examinations in Subject A.
June 16-26, incl.	Final examinations, second half-year, 1932-33.
June 30, Friday	The fourteenth annual commencement at Los Angeles.
June 28-July 25, incl.*	Summer Course in Surveying.
June 28-Aug. 8, incl.*	Summer Session in Los Angeles.

* Tentative dates.

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

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 Provost of the University of California at Los Angeles.

DEMING GEROW MACLISE, 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.

CLAUDE BURTON HUTCHISON, M.S., Dean of the College of Agriculture, and Director of the Agricultural Experiment Station.

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.

LEON D. BATCHELOR, Ph.D., Director of the Branch of the College of Agriculture in Southern California.

HARRY MUNSON SHOWMAN, E.M., M.A., Recorder.

CLARENCE HALL ROBISON, Ph.D., Associate Director of Admissions.

JOHN EDWARD GOODWIN, B.L., B.L.S., Librarian.

LILLIAN RAY TITCOMB, M.D., Physician for Women.

DONALD MCKINNON, M.D., Physician for Men.

M. BURNET 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 1932-33.

Agriculture. Entomology 1, Plant Nutrition 110, Plant Pathology 120. Art. 1, 2A-2B, 4A-4B, 22N, 31A-31B, 32A-32B, 101, 131A-131B, 134A-134B, 154, 161.

Astronomy. All undergraduate courses.

Biological Sciences. All undergraduate courses.

Chemistry. All undergraduate courses except 10.

Classical Languages. All undergraduate courses.

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

Education. 103, 121, 122, 128, 130, 170, 189.

English.

English. All undergraduate courses except 161.

Public Speaking. All undergraduate courses except 10c-10d 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.

Civil Engineering. All undergraduate courses.

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

Military Science and Tactics. All undergraduate courses.

Music. 1A-1B, 3A-3B, 4A-4B, 9ABCD, 10ABCD, 55A-55B, 101A-101B, 105A-105B, 111A-111B, 118ABCD.

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.

AGRICULTURE

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

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

JOHN S. BURD, B.S., Professor of Plant Nutrition.

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

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

HARRY S. SMITH, M.A., Professor of Entomology, Riverside.

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

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

ALFRED M. BOYCE, M.S., Assistant Professor of Entomology, Riverside.

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

RALPH H. SMITH, Ph.D., Entomologist, Riverside.

PIERRE H. MILLER, M.S., Research Associate in Plant Pathology, Riverside.

DAVID APPLEMAN, B.S., Research Assistant in Subtropical Horticulture.

JACOB BIALOGLOWSKI, B.S., Research Assistant in Subtropical Horticulture.

Letters and Science List.—Entomology 1, Plant Nutrition 110, and Plant Pathology 120 are included in the Letters and Science List of Courses. For regulations governing this list, see page 7.

Upper Division Courses.—All upper division courses announced by this department presuppose at least junior standing in the College of Agriculture. Juniors and seniors in other colleges may elect such courses in the Department of Agriculture as they are qualified to pursue.

Preparation for the Major in Subtropical Horticulture.—Course 2 or the equivalent, and the requirements in the Plant Science Curriculum (see Circular of Information, University of California at Los Angeles, or the Prospectus of the College of Agriculture).

The Major in Subtropical Horticulture.—Twelve units of upper division courses including 100, 104, and 106.

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

Laboratory Fee.—The fee for Entomology 1 is \$1.

(ENTOMOLOGY)

1. General Entomology. (4) II.

Professor QUAYLE, Assistant Professor BOYCE

Lectures, Tu Th, 10 and W, 1; laboratory, W, 2-5.

Prerequisite, Zoology 1A. Fee, \$1.

Survey of the field of entomology; collection and preservation, classification, morphology, physiology, ecology, and economic relationships of the class Insecta. Laboratory work consists of comparative studies of the morphology and taxonomy of representative species together with biologic and economic considerations.

*124. Economic Entomology. (4) II.

Professors QUAYLE and H. S. SMITH, Assistant Professor BOYCE,
Dr. R. H. SMITH

Lectures, Tu Th, 8; laboratory, Tu Th, 1-4.

Prerequisite: Zoology 1A.

Detailed consideration of the identity, biology, and control of the more important insects affecting citrus and other subtropical fruits in the chief regions where they are produced, with particular reference to those occurring in California. Laboratory work consists of technical studies of the individual species, the nature of their injury, and of mechanical and biological control.

IRRIGATION

*105. Principles of Irrigation Practice. (4) II. Professor BECKETT

Lectures, Tu Th, 10; laboratory, M F, 9-12.

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

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

(PLANT NUTRITION)

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

Lectures, three hours; laboratory, three hours.

Prerequisite: Chemistry 1A-1B, 8.

Composition and properties of soils. Factors determining productivity. The causes and effects of the soil's reaction, with particular reference to "acid" and "alkali" soils. The nature of fertilizers and some of their effects upon soil and plant. Current theory of the soil solution.

* Not to be offered until 1933-34.

(PLANT PATHOLOGY)

- *120. Plant Diseases. (4) I. Professor FAWCETT, Mr. MILLER

Lectures, Tu Th, 8; laboratory, M F, 2-5.

Prerequisites: Botany 1 and 2 and Bacteriology 1.

A general fundamental course treating of the nature, cause, and control of plant diseases with special attention given to diseases affecting subtropical plants.

(SUBTROPICAL HORTICULTURE)

2. Elements of Fruit Production. (3) II. Associate Professor HODGSON

Lectures, M W F, 11.

Prerequisites: Botany 1 and 2 or the equivalent.

The principles and practices of fruit growing with special reference to subtropical regions. Climatic classification and adaptations, selection of site, propagation, planting, cultural practices, harvesting, and marketing.

- *100. Systematic Subtropical Horticulture. (3) I.

Associate Professor CONDIT

Lecture, Tu, 1; laboratory, Tu Th, 2-5.

Prerequisite: course 2 or the equivalent.

The botanical classification and relationships of the principal fruits; horticultural races and groups; growth and bearing habits; varietal characters.

- *102. Advanced Fruit Production. (3) II. Assistant Professor CAMERON

Lectures, Tu W Th, 9.

Prerequisites: Chemistry 1A-1B, Subtropical Horticulture 2 and 100, and Botany 101 or the equivalent.

A critical analysis of the knowledge concerning the responses of fruit trees to environmental and cultural influences, with special reference to subtropical regions.

- † 103A. Pro-Seminar. (2) I. F, 10-12. Professor BATCHELOR in charge

Open only to senior students majoring in Subtropical Horticulture.

A critical review and discussion of reading assignments.

* Not to be offered until 1933-34.

† Not to be offered until 1934-35.

***104. Special Field Studies. (3) Professor BATCHELOR in charge**

A four weeks' course following the second half-year of the junior year. Required of all students majoring in Subtropical Horticulture.

Prerequisites: courses 2 and 100, or the equivalent, and 106.

The principal purposes of the course are (1) to develop in the student (a) facility and accuracy in making and interpreting field observations, (b) ability to observe independently and to analyze field experiments, (c) capacity for applying the results of experimental procedure to the analysis and solution of problems in the field, and (2) to acquaint him with certain important relations, conditions, problems, and practices which can best be learned by directed personal observation in the field (climatic regions and special reactions and adaptations, frost and wind protection, fruit harvesting and preparation for market, etc.).

***106. Citriculture. (4) II.**

Associate Professor HODGSON, Assistant Professor CAMERON,
Mr. BIALOGLOWSKI

Lectures, M W F, 8; laboratory, F, 1-4.

Prerequisites: Chemistry 1A-1B, Subtropical Horticulture 2, and Botany 101 or the equivalent. (May be taken concurrently with Botany 101.) Subtropical Horticulture 100 is advised.

A critical study of what is known concerning the citrus fruits; their characteristics and responses to environmental influences and cultural practices, and the economics of the citrus industry.

***108. History of Fruit Culture. (2) I.**

Associate Professor CONDIT, Mr. APPLEMAN

Lectures, F, 8-10.

Prerequisites: course 2 or the equivalent. Course 100 (concurrently) is advised.

The origin and spread of fruit plants and the history of fruit culture and their relation to the development of civilization.

***199A-199B. Special Study for Advanced Undergraduates. (2-2) Yr.**

Professor BATCHELOR in charge

* Not to be offered until 1933-34.

ART*

GEORGE JAMES COX, A.R.C.A., Professor of Art.

NELLIE HUNTINGTON GERE, Associate Professor of Fine Arts.

LOUISE PINKNEY SOOY, Associate Professor of Fine Arts.

HELEN CLARK CHANDLER, Assistant Professor of Fine Arts.

OLIVE NEWCOMB, Associate in Fine Arts.

BELLE H. WHITICE, Associate in Fine Arts.

HELEN M. HOWELL, Ed.B., Associate in Fine Arts and Supervisor of Art Training.

*HELEN J. LEDGERWOOD, Ed.B., Associate in Fine Arts.

VIRGINIA VAN NORDEN WOODBRIDGE, Ed.B., Associate in Fine Arts.

LOUISE GUTHRIE THOMPSON, Ed.B., Associate in Fine Arts.

CLARA BARTRAM HUMPHREYS, M.A., Associate in Fine Arts.

MARJORIE HARRIMAN, Ed.B., Associate in Fine Arts.

ANNITA DELANO, Associate in Fine Arts.

ADELAIDE MORRIS, M.A., Associate in Fine Arts.

BERYL KIRK SMITH, Associate in Fine Arts.

WINONA WENZLICK, Ed.B., Associate in Fine Arts.

EDOUARD VYSEKAL, Lecturer in Fine Arts.

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

The Teachers College

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

The Major, leading to the Special Secondary Teaching Credential in Art.—31A, 31B, 32B, 101, 165A, 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. (Kindergarten and Elementary) 1, 2B, 4B, 8B, 21, 22N, 30K or 30E, and 4 units of elective courses as approved by the Art Department.

2. (Home Economics) 1, 13, 21, 22N, 101, 156A, 158, and 4 units of elective courses as approved by the Art Department.

*The College of Letters and Science**

Art 1, 2A, 2B, 4A, 4B, 22N, 31A, 31B, 32A, 32B, 101, 131A, 131B, 134A, 134B, 154, 161 are included in the Letters and Science List of Courses.

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

* In residence second half-year only, 1982-88.

Laboratory Fees.—The following fees are required: courses 8A, 8B, 9, 18, 29A, 29B, 119, 158, 198, \$1; courses 19A, 19B, 30E, 30K, 39A, 39B, \$2; courses 134B, 164, \$5.

Instruction is offered by the department in the following fields:

Appreciation and History of Art: Courses 1, 11, 21, 31A-31B, 101, 131A-131B, 161.

Art Education: Courses 30, 160A-160B, 180, 190.

Costume: Courses 13, 183A-183B.

Crafts: Courses 8A-8B, 9, 18, 19A-19B, 29A-29B, 39A-39B, 49, 69A-69B, 79, 119, 158, 168, 198.

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

Drawing and Painting: Courses 4A-4B, 134A-134B, 154, 164.

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

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

Landscape: Courses 137, 177A-177B.

Courses 1 and 2A (or 22N) are prerequisite to all other courses in the department except certain courses which may be taken concurrently with them.

LOWER DIVISION COURSES

1. Principles of Esthetics. (2) Either half-year.

Associate Professor GERE, Miss MORRIS

2A-2B. Art Structure. (3-2) Yr. Miss HARRIMAN, Mrs. THOMPSON

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

B. Composition of naturalistic forms.

4A-4B. Drawing and Painting. (2-3) Yr. Mrs. SMITH and the STAFF

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

8A-8B. Stage Craft. (1-1) I.

Miss LEDGERWOOD

Fee, \$1 per semester.

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 costumes.

9. Elementary Bookbinding. (2) II.

Miss WHITICE

Fee, \$1.

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.

11. Art Centers of the World. (2) Either half-year. Professor Cox
12. Lettering. (2) II. Miss WENZLICK and the STAFF
Quick and accurate writing for commercial uses.
13. Costume Appreciation and Design. (2) II. Mrs. HUMPHREYS
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.
18. Elementary Construction. (2) Either half-year.
Fee, \$1. Miss NEWCOMB, Miss WHITICE
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. Fee, \$2 per semester.
Hand building and glazing—use of potter's wheel, making of molds and casting.
21. Costume Appreciation and House Furnishing. (2) II. Associate Professor SOOY and the STAFF
Lectures, discussion, and demonstration to develop appreciation of modern costume and house furnishings.
- 22N. Art Structure. (2) Either half-year. Mrs. HUMPHREYS and the STAFF
Fundamental course in design and art appreciation given to students in Letters and Science, Home Economics, Elementary, and Kindergarten-Primary Education.
Not open to students who have had course 2A.
- 29A-29B. Bookbinding. (2-2) Yr. Miss WHITICE
Prerequisite: 9. Fee, \$1 per semester.
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.
30. Fine and Industrial Art Education. (2) Either half-year. Mrs. HUMPHREYS, Miss NEWCOMB, Mr. KELLER, Miss WHITE
Prerequisite: Art 2A and sophomore standing. Fee, \$2.
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.

- 31A-31B. History of Art. (2-2) Yr. Associate Professor GERE
Art of Occident and Orient. Architecture, sculpture, painting, and the crafts. Ancient, mediaeval, and modern.
- 32A-32B. Art Structure. (2-2) Yr. Miss DELANO, Mrs. THOMPSON
A. Originality and power in designing developed through experience with imaginative motifs.
B. Industrial design. Design for specific crafts, including pottery, metal, leather, weaving, etc.
- 39A-39B. Weaving. (2-2) Yr. Miss WHITICE
Fee, \$2 per semester.
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. Leather. (2) II. Miss WHITICE
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.
- *69B. Leather. (2) II. Miss WHITICE
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.

UPPER DIVISION COURSES

101. History of Costume and Furniture. (2) II.
Associate Professor SOOY, Mrs. WOODBRIDGE
119. Advanced Pottery. (2) I. Miss NEWCOMB
Fee, \$1.
Study of glazes, stacking kiln and firing.
- 131A-131B. History of Art, Advanced. (2-2) Yr. Associate Professor GERE
A. Italian painting and sculpture.
B. Spanish, Flemish, Dutch, German, French, British, and American painting. Recent sculpture and painting.

134A-134B. Drawing and Painting. (2-2) Yr.

Assistant Professor CHANDLER, Mrs. SMITH

Fee, 134B, \$5.

A. Study of the structure of three dimensional mass leading to the imaginative interpretation of form.

B. Life class.

135A. Book Illustration. (2) I.

Assistant Professor CHANDLER

Illustrations of fables, legends, and imaginative tales.

135B. Book Illustration. (2) II.

Assistant Professor CHANDLER

137. Sketching. (2) II.

Landscape composition. Charcoal and wash drawings.

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.

154. Advanced Drawing and Painting. (2) Either half-year.

Miss DELANO

156A-156B. Interior Decoration. (2-2) Yr.

Associate Professor SOOY, Mrs. WOODBRIDGE

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, furniture, and room composition.

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.

158. Textile Decoration and Pictorial Block Printing. (2) II.

Miss LEDGERWOOD

Fee, \$1.

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.

161. Oriental Art. (2) II.

Associate Professor GERE

Mohammedan, East Indian, Chinese, Korean, and Japanese art. Comparison of oriental and occidental art.

164. Life Class. (2) II.

Mr. VYSEKAL

Fee, \$5.00.

Advanced drawing and painting from the figure, including the study of anatomy.

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 by means of art.

168. Stage Craft. (1) Either half-year.

Associate Professor SOOY and the STAFF

Principles of art applied to the stage. Technical knowledge necessary to produce pantomimes, pageants, and plays.

175. Advanced Illustration and Wall Decorations. (2) Either half-year.

Professor Cox

177A. Water Color and Oil Painting. (2) I.

Prerequisite: course 137.

*177B. Water Color Painting. (2) II.

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

Associate Professor SOOY

Summary of the theories of art education: its aim, ideals and practices. The function of aesthetics in art education.

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.

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

Mrs. WOODBRIDGE

A. Original designs for complete rooms, elevations and perspectives in color. A stress on the technical side of interior decoration.

B. Furniture design. Original designs based on period, peasant and modern research. A technical course including the making of working drawings.

190. The Organization and Supervision of Art Education. (2) I.

Miss HOWELL

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

198. Clay Modeling. (2) Either half-year.

Professor Cox

Fee, \$1.

* Not to be given, 1932-33.

ASTRONOMY†

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

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

The Minor in Teachers College.—Twelve units of astronomy, at least six of which must be in upper division courses, including Astronomy 103A-103B.

LOWER DIVISION COURSES

1. Elementary Astronomy. (3) Either half-year.

M W F, 8.

Associate Professor LEONARD

Prerequisite: elementary algebra, plane geometry, and high-school physics or chemistry.

An introductory course in the general principles and the fundamental facts of astronomy in all of its branches. Small conference sections, for discussion and questions, are held.

3. Surveyors' Course in Elementary Practical Astronomy. (1) II.

Th, 1-3.

Associate Professor LEONARD

Prerequisite: Civil Engineering 1FA, and credit or registration in Civil Engineering 1FB, or the permission of the instructor.

A course intended primarily for students of civil engineering; the principles of spherical trigonometry and elementary practical astronomy as they are adapted to the needs of such students; solution of the fundamental problems of practical astronomy; use of the Almanac; computing.

11. Modern Astronomy. (3) II. M W F, 11.

Associate Professor LEONARD

Prerequisite: Astronomy 1.

The sidereal universe; the results of the latest researches in stellar astronomy and astrophysics, and progress through the use of modern methods, especially the spectroscopic and the photographic. This course is a sequel to or a continuation of Astronomy 1.

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

UPPER DIVISION COURSES

103A-103B. General Astronomy. (3-3) Yr. M W F, 10.

Associate Professor LEONARD

Prerequisite: A year of college physics and plane analytic geometry. The general principles and the fundamental facts of the astronomy of the solar system, and of stellar astronomy, developed and discussed in detail.

*117A-117B. Astrophysics. (3-3) Yr. M 1, Tu Th, 8.

Associate Professor LEONARD

A general review of the underlying principles and the current problems of astrophysics, with particular reference to the application of the spectroscope to the solution of those problems. Open to upper division students whose major subject is a physical science or mathematics.

125. History of Astronomy. (3) I. M W F, 11.

Associate Professor LEONARD

Prerequisite: Astronomy 1 and 11 or one upper-division course in astronomy.

199. Special Study for Advanced Undergraduates. (2) Either half-year.

Associate Professor LEONARD

Prerequisite: Upper division standing and the permission of the instructor.

Investigation of special problems, to be selected according to the preparation and the requirements of the individual student.

* Not to be given, 1982-83.

BIOLOGICAL SCIENCES

LOYE HOLMES MILLER, Ph.D., Professor of Biology.

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

OLENUS L. SPONSLER, Ph.D., Professor of Botany.

ALBERT W. BELLAMY, Ph.D., Associate Professor of Zoology, and Research Associate in Genetics.

—————, Associate Professor of Bacteriology.

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

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.

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

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

RUTH ANDERSON, Ph.D., Assistant Professor of Biology.

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

WALTER MOSAUER, Ph.D., Instructor in Zoology.

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

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

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

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

MARGARET GRIERSON, A.B., Associate in Biology.

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

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 for the departments at Berkeley, or to the departmental adviser 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 this department 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 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, or 105A-105B.

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 Bacteriology 1 is \$12.50; Botany 1, 2, 105A, 105B is \$1; Botany 109, 111, 120, Zoology 1C, 111D, 112 is \$2; Botany 10, 101, Physiology, 1, 2, Zoology 1A, 1B, 35, 100A, 100C, 101, 105, 111C, 199A, 199B is \$3; for Zoology 4 is \$5; for Zoology 106 is \$7.50; and Zoology 107C is \$10.

BACTERIOLOGY

1. General Bacteriology. (4) Either half-year.

Prerequisites: Chemistry 1A or high school chemistry and Physiology 1. Fee, \$12.50.

Early history of bacteriology; effects of physical and chemical agencies upon bacteria; biochemical activities of bacteria; the bacteriology of the air, water, soil, milk, and dairy products, other foods; industrial applications. The laboratory exercises include an introduction to bacteriological technique.

BIOLOGY

1. Fundamentals of Biology. (3) Either half-year.

Associate Professor BELLAMY, Assistant Professors COWLES and HAUPT, Dr. BARTLETT

Not open to students who have taken or are taking Botany 1 or Zoology 1A.

Important principles of biology illustrated by studies of structure and activities of living organisms, both plants and animals. One field trip is required.

- *1C. General Biology Laboratory and Field. (1) Either half-year.

Prerequisite or concurrent: Biology 1.

12. General Biology. (3) II.

M W F, 10.

Professor MILLER, Assistant Professor COWLES

Prerequisite: Biology 1, Botany 1, or Zoology 1A.

A course in systematic and ecologic biology with emphasis on the local environment.

Lectures, readings, reports on materials and field observations.

Three lectures and one demonstration hour each week with two required field trips.

* Not to be offered, 1982-88.

BOTANY

LOWER DIVISION COURSES

1. General Botany. (4) Either half-year.

Assistant Professor EPLING and the STAFF

Lectures, Tu Th, 12; six hours laboratory. Fee, \$1.

A survey of the science of plant life: how plants live, multiply, and inherit; their families and communities; their economic relation to man. Three afternoon trips will be made by bus to nearby localities; a Saturday trip will be made to the San Fernando Valley and another to Mt. San Jacinto.

2. General Botany. (4) Either half-year.

Assistant Professor PLUNKETT and the STAFF

Lectures, Tu Th, 12; six hours laboratory. Fee, \$1.

A continuation of course 1, dealing with the comparative morphology of all of the great plant groups.

10. Botanical Microtechnique. (3) 1.

Assistant Professor HAUPT

Lecture, one hour; laboratory, six hours.

Prerequisite: Botany 1 and 2. Fee, \$3.

Preparation of plant material for microscopic study involving methods in fixing, embedding, sectioning, and staining.

UPPER DIVISION COURSES

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

101. Plant Physiology. (3) II.

Professor SPONSLER

Lecture, one hour; laboratory, six hours.

Prerequisite: Botany 109, and chemistry. Fee, \$3.

Experimental work designed to demonstrate various activities of the plant.

103. Economic Botany. (2) II.

Professor SPONSLER

Lectures, two hours.

Prerequisite: Botany 1, or its equivalent.

Designed for students in economics and geography. The lectures deal with the growth, distribution, and development of plants which form the basis of a few of the larger industries, such as those concerned with cereals, sugar, fibers, lumber, pulp and paper, cellulose products, etc.

- 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 and Bryophytes. (4) I.

Assistant Professor PLUNKETT

Lecture, two hours; laboratory, six hours. Fee, \$1.

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.

105B. Morphology of Pteridophytes and Spermatophytes. (4) II.

Assistant Professor HAUPT

Lecture, two hours; laboratory, six hours. Fee, \$1.

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. Botany 10 is recommended. Fee, \$2.

The microscopic structure of the higher plants with particular reference to the development and differentiation of vegetative tissues.

111. Plant Cytology. (3) II.

Assistant Professor SCOTT

Lecture, one hour; laboratory, six hours.

Prerequisite: Botany 10, 109, and 105A or 105B. Fee, \$2.

Structure and physiology of the cell.

114. Advanced Plant Physiology. (3) I.

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. Fee, \$2.

A study of bacterial and fungous diseases of plants.

152. Experimental Plant Ecology. (3) II. Assistant Professor JOHNSON

Lecture, one hour; laboratory, six hours.

Prerequisite: 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.

Prerequisite: senior standing. Professor SPONSLER and the STAFF

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 surrounded the ancient life of the earth, and some of the ways in which animals respond to such influences.

† Courses in Invertebrate Paleontology are offered by the Department of Geology (p. 61).

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.

PHYSIOLOGY‡**1. General Human Physiology. (3) II. Assistant Professor ANDERSON**

Lectures, Tu Th, 11; laboratory, three hours. Fee, \$3.

Prerequisite: Chemistry 2A-2B or high school chemistry.

2. General Physiology. (2) I.**Assistant Professor ANDERSON**

Continuation of course 1.

Lecture, W, 12; laboratory, three hours. Fee, \$3.

The physiology of growth and metabolism, as affected by nutrition and glands of internal secretion.

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. Fee, \$3.

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. Fee, \$3.

Prerequisite: Zoology 1A.

An introduction to vertebrate morphology and embryology.

1C. Embryology. (2) II.**Assistant Professor LAZIER**

Fee, \$2.

Designed for students who transfer to this University from other institutions without having had the work covered in the latter half of Zoology 1B. Students enrolled in this course will meet with the class in Zoology 1B during the last nine weeks of the semester.

Not open to students who have taken Zoology 1B at this University.

4. Microscopical Technique. (2) Either half-year.**Dr. BARTLETT**

Laboratory, six hours; assigned readings.

Prerequisite: Zoology 1A and high school chemistry. Fee, \$5.

The preparation of tissues for microscopical examination.

35. General Human Anatomy. (3) I. Assistant Professor ANDERSON

Lecture, Tu Th, 11; laboratory, three hours. Fee, \$3.

Prerequisite: sophomore standing; Zoology 1A or Biology 1.

‡ The University of California at Los Angeles does not offer a major in physiology in the College of Letters and Science. Students wishing to satisfy the requirements for a major in physiology are referred to the Announcement of Courses in the Departments at Berkeley.

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. Fee, \$3.
The student is given an opportunity to become familiar with the principles of heredity and research methods in genetics.
- 100B. Advanced Genetics. (2) II. 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 with 100C.
- 100C. Advanced Genetics Laboratory. (2) II.
Fee, \$3. 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. Fee, \$3.
Lectures, readings, demonstrations, and laboratory study of certain physico-chemical processes and the principles of living matter.
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) Either half-year.
Professor ALLEN
Lectures, one hour; laboratory, six hours.
Prerequisite: Zoology 1A and either 1B or 35. Fee, \$3.
A study of mammalian embryology.
106. Comparative Anatomy of the Higher Vertebrates. (4) I.
Assistant Professor LAZIER
Lecture, two hours; laboratory, six hours.
Prerequisite: Zoology 1A-1B (including embryology) and junior standing. Fee, \$7.50.
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. Fee, \$10.

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. Fee, \$3.
- 111d. Entomological Parasitology. (2) II. Assistant Professor COWLES
Prerequisite: Zoology 1A. Fee, \$2.
112. Advanced Invertebrate Zoology. (4) II. Assistant Professor LAZIER
Lectures, two hours; laboratory and field, six hours.
Prerequisite: Zoology 1A. Zoology 1B is recommended. Fee, \$2.
Morphology, habits, habitats, and life histories of both marine and fresh water invertebrates, with especial reference to local faunas.
113. 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.
Fee, \$3 per semester. Professor MILLER and the STAFF
Prerequisite: Zoology 1A-1B and junior standing, with such special preparation as the problem may demand.

113C 2nd of The Higher Vertebrates,
Laboratory (2) II

CHEMISTRY

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

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

WILLIAM R. CROWELL, Ph.D., Associate Professor of Analytical Chemistry.

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

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

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

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

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

HERBERT F. LAUNER, A.B., Associate in Chemistry.

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

Letters and Science List.—All undergraduate courses in chemistry except 10 are included in the Letters and Science List of Courses. For regulations governing this list, see page 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-1C (6); trigonometry, Mathematics 8, 3A-3B (9), and a reading knowledge of German. Recommended: a second course in chemistry, Physics 1B-1D, Mathematics 4A-4B.

The Major.—All units in chemistry in excess of fourteen are counted as upper division units when taken by a student in the upper division. The minimum requirement for the major is: Chemistry 6A-6B (6), 8A and 9 (6), 110 (3), 110B (3), 111 (4). The remainder of the twenty-four required upper division units may be taken in chemistry or allied subjects in accordance with some definite plan approved by the department. A student whose work in the major subject does not average C or better will be required to withdraw from the department.

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 lower division departmental adviser before making out their programs.

Laboratory Fees.—These fees cover the cost of material and equipment used by the average careful student. Any excess over this amount will be charged to the individual responsible. The fees per semester are as follows: Courses 2A-2B, 10, 107A-107B, \$10.00; 1A-1B, \$14.00; 199, \$15.00; 5, 6A, 6B, 120, \$17.00; 111, \$22.00; 9, 101, \$27.00.

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. Fee, \$14.00 per semester.

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

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. Fee, \$10.00 per semester.

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, 9; laboratory, six hours.

Prerequisite: Chemistry 1A-1B. Fee, \$17.00 per semester.

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, M, 11; laboratory, six hours.

Prerequisite: Chemistry 1A-1B. Fee, \$17.00 per semester.

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 and household science 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, Assistant Professor YOUNG

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

May be taken only concurrently with or subsequently to Chemistry 8A.

Required of petroleum engineers, pre-medical and pre-dental students, chemistry majors, and College of Chemistry students. Fee, \$27.00.

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. Fee, \$10.00.

Required of home economics majors.

UPPER DIVISION COURSES

101. Advanced Organic Laboratory. (3) II.

Laboratory, nine hours.

Associate Professor ROBERTSON

Prerequisite: Chemistry 8A and 9 and the ability to read scientific German. Fee, \$27.00.

Introduction to research methods, analytic and synthetic.

107A-107B. Biological Chemistry. (3) Yr. Associate Professor DUNN

Lectures, Tu Th, 8; laboratory, three hours.

Prerequisite: Chemistry 8A and 9. Fee, \$10.00 per semester.

110. Physical Chemistry. (3) I.

Assistant Professor RAMSEY

M W F, 10.

Prerequisite: Chemistry 5 or 6A; Physics 1A-1C.

Required of chemistry majors, College of Chemistry students and for all later work in physical chemistry.

Lectures and problems.

110B. Advanced Physical Chemistry. (3) II. Assistant Professor RAMSEY

M W F, 10.

Prerequisite: Chemistry 110.

Required of chemistry majors.

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. Fee, \$22.00.

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. Fee, \$17.00.

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.

199A-199B. Problems in Chemistry. (2-3) Yr.

Professor MORGAN and the STAFF

Prerequisite: junior standing with such special preparation as the problem may demand. Fee, \$15.00 per semester.

195 Special Topics (1) II

CLASSICAL LANGUAGES

ARTHUR PATCH MCKINLAY, Ph.D., Professor of Latin.

†FREDERICK MASON CAREY, Ph.D., Associate Professor of Greek and Latin.

DOROTHEA CLINTON WOODWORTH, Ph.D., Assistant Professor of Latin and Greek.

HERBERT BENNO HOFFLEIT, Ph.D., Assistant Professor of Latin and Greek.

BARCLAY W. BRADLEY, Ph.D., Lecturer in Classical Languages.

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. Recommended: Greek, German, French.

B. *Greek.*—Required: Either 1A-1B and 101 or 102; or 1AB-2AB; or two years of high school Greek and 101 or 102; and Ancient History 112A-112B. Recommended: Latin, German, French.

The Major.

A. *Latin.*—All courses offered in Latin except 199A-199B, and Ancient History 112A-112B. Six units of upper division courses in Greek may be substituted for Ancient History 112A-112B.

B. *Greek.*—All courses offered in Greek except 117A-117B, plus six units of upper division courses in Latin, English, French, German, Spanish, philosophy, ancient or medieval history, to be chosen with the approval of the department.

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

LATIN

LOWER DIVISION COURSES

A. Beginning Latin. (3) I.
M W F, 8.

Dr. BRADLEY

Not open to students who have matriculation credit in Latin.

B. Latin Readings. (3) II.
M W F, 8.

Dr. BRADLEY

Prerequisite: A or one year of high school Latin.

† Absent on leave, 1932-33.

- AB. Beginning Latin and Latin Readings. (5) I.** Professor MCKINLAY
Designed for students who wish to review their high school Latin. Students with one or two years of high school Latin will receive full credit; students with three years of high school Latin will receive two units only. Not open to students with credit for more than three years.
- C. Third Lear Latin: Ovid. (3) I.** Assistant Professor WOODWORTH
M W F, 12.
Prerequisite: course B or AB or two years of high school Latin.
- D. Fourth Year Latin. Vergil. (3) II.** Assistant Professor HOFFLEIT
M W F, 12.
Prerequisite: course C, or AB with special permission of the instructor.
- 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.** Assistant Professor WOODWORTH
3A is given either half-year.
Prerequisite: four years of high school Latin.
- 5. Horace: Odes and Epodes. (3) II.** Professor MCKINLAY
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.**
Prerequisite: Latin 5. Assistant Professor WOODWORTH
- *104A-104B. Latin Composition. (1-1) Yr. Tu, 10.**
Prerequisite: Latin 3A-3B. Assistant Professor WOODWORTH
Ciceronian Prose—104A, Oratory; 104B, Rhetoric.
- 104C-104D. Latin Composition. (1-1) Yr. Tu, 10.**
Prerequisite: Latin 3A-3B. Assistant Professor WOODWORTH
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. Assistant Professor HOFFLEIT
- 120. Roman Satire. (3) I. M W F, 10.** Assistant Professor HOFFLEIT

* Not offered, 1932-33. Courses 104A and 104B are given in alternation with 104C and 104D. 104A and 104B will be offered in 1933-34. Two units required of Latin majors.

140. Ovid: *Carmina Amatoria* and *Metamorphoses*. (3) II. M W F, 10.
Assistant Professor WOODWORTH
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

GREEK

LOWER DIVISION COURSE

- 1AB-2AB. Greek for Beginners, Attic Prose. (5-5) Yr.
M Tu W Th F, 9. Dr. BRADLEY

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 1AB. Assistant Professor HOFFLEIT
101. Homer: *Odyssey*; Herodotus. (3) I. M W F, 11.
Assistant Professor WOODWORTH
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.
Assistant Professor HOFFLEIT
- *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. Assistant Professor HOFFLEIT
- 117A-117B. Greek New Testament. (1-1) Yr. Th, 10. Dr. BRADLEY
Prerequisite: Greek 1A or 1AB.
- 199A-199B Prob. in *Class. Philology* (2-2)
ANCIENT HISTORY†
- 112A. History of Greece to the Fall of Corinth. (3) I. M W F, 12.
Assistant Professor HOFFLEIT
- 112B. History of Rome to the Death of Justinian. (3) II. M W F, 12.
Professor MCKINLAY

* Not offered, 1982-83. Greek 108 and Greek 114 will ordinarily be given in alternation with Greek 104 and Greek 105 respectively. Greek 104 and Greek 105 will be offered in 1983-84.

† Knowledge of Greek and Latin not required. Required of majors in classical languages. Open to properly prepared majors in philosophy, history, political science, English, and foreign language.

ECONOMICS

GORDON S. WATKINS, Ph.D., Professor of Economics, Associate Dean of the Summer Sessions and Dean of the Summer Session in Los Angeles.
 EARL JOYCE MILLER, Ph.D., Professor of Economics and Dean of Men.
 HOWARD SCOTT NOBLE, M.B.A., C.P.A., Associate Professor of Economics.
 IRA N. FRISBEE, M.B.A., C.P.A., Associate Professor of Economics.
 FLOYD F. BURCHETT, Ph.D., Assistant Professor of Economics.
 DUDLEY F. PEGRUM, Ph.D., Assistant Professor of Economics.
 MARVEL M. STOCKWELL, Ph.D., Assistant Professor of Economics.
 CONSTANTINE PANUNZIO, Ph.D., Assistant Professor of Economics.
 GEORGE W. ROBBINS, M.B.A., Assistant Professor of Economics.
 LEWIS A. MAVERICK, Ed.D., Ph.D., Assistant Professor of Economics.
 EVA M. ALLEN, Associate in Commercial Practice.
 ESTELLA B. PLOUGH, Associate in Commercial Practice.
 WESLEY S. BAGBY, A.B., Assistant in Economics.
 ELWOOD G. CHILDERS, M.B.A., Assistant in Economics.
 JEAN I. HAWLEY, A.B., Assistant in Economics.

JOHN C. CLENDENIN, M.S., Lecturer in Economics.
 PAUL A. DODD, Ph.D., 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, Economics 14A-14B, 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, or Botany 103, 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, 15A or 15B; Commerce 16, 17, 18A, 18B; Political Science 18A, 18B; Geography 5A, 5B; History 75 or 76.

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

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

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, \$10; Commerce 16, \$2.50. Economics 140, \$1.

LOWER DIVISION COURSES

1A-1B. Principles of Economics. (3-3) Beginning either half-year.

Professor MILLER, Assistant Professor STOCKWELL

Two hours lecture, and one hour quiz.

14A-14B. Principles of Accounting. (3-3) Beginning either half-year.

Associate Professors NOBLE, FRISBEE

Two hours lecture, and two hours laboratory.

15A-15B. Accounting Laboratory. (1-1) Yr.

Mrs. ALLEN

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.

Assistant Professor 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) I.

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.**Assistant Professor ROBBINS**

A study is made of the functions of middlemen, the marketing of farm products, minerals, forest products, manufacturers, 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.

132. Trust Problems. (3) Either half-year.**Assistant Professor PEGRUM**

Fundamental economic factors lying behind the development of industrial combinations and monopolies. An analysis of typical combinations. The anti-trust law and dissolution suits. A discussion of trade associations, the Federal Trade Commission, the combination movement in Europe and conclusions as to American policy.

133. Corporation Finance. (3) Either half-year.*Prerequisite: course 14A-14B.****Assistant Professor BURTCHETT**

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 BURTCHETT**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 BURTCHETT**

A study of the functions of money and the development of credit institutions; the nature of the banking business, the development of the American banking system, and the significance of commercial banking in the financial organization of society.

138. Business Cycles. (3) Either half-year.**Assistant Professor MAVERICK**

A study of fluctuations in business, as in prices, production, wages, and profits; whether there is a common or general fluctuation; theories of causation and consequent feasibility of forecasting; proper adjustment of business management to the cycles; possibility of controlling the cycle or alleviating its social effects.

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

Associate Professor FRISBEE and the STAFF

Tu Th, 8, and laboratory periods. Fee, \$1.

Sources of statistical data; construction of tables; charts, and graphs; study of statistical methods: averages, measures of deviation, index numbers, secular trend, seasonal variation, correlation; study of business cycles.

Recommended in the first half of the junior year.

150. Labor Economics. (3) I.

Professor WATKINS

An introduction to the problems of industrial relations. The rise of modern industrialism. An examination of the principal problems of industrial relations and the most prominent agencies and methods of improvement. The basis of industrial peace.

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.

Assistant Professor ROBBINS

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. Special Problems in Economics. (2) Either half-year.

The STAFF (Professor MILLER in charge)

Prerequisite: senior standing, six units of upper division economics, and consent of the instructor.

The emphasis of this course is upon original investigation.

Business Administration

120. Industrial Management. (3) I.

Dr. DODD

A study of factory organization including the planning department, functional foreman, and production control. Consideration of plant location and buildings; layout of machinery; storing of materials, and routing of production orders. History of scientific management.

* Not to be given, 1932-33.

121. Business Administration. (3) II. Associate Professor NOBLE
Prerequisites: Economics 14A-14B and 12 units of upper division economics.

A study of the problems of business administration by the case method. Emphasis is placed upon the correlation of functions and activities of operating departments.

151. Personnel Management. (2) II. Professor WATKINS

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 Professor 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.

161. Cost Accounting. (3) I. 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) II. Associate Professor FRISBEE

Prerequisite: course 14A-14B, 160A-160B.

Accounting investigations, balance sheet audits and detailed audits performed by public accountants. Valuation, audit procedure, working papers and audit reports.

Sociology

- 185A-185B. Social Institutions. (2-2) Yr.

Assistant Professor PANUNZIO

Prerequisite: Economics 1A-1B or equivalent preparation.

A critical study of the origin, evolution, structures, functions of social institutions; social processes and the idea of progress.

Lectures, discussions, and collateral reading.

186. Population and Race Relations. (3) I.

Assistant Professor PANUNZIO

Prerequisite: Economics 185A-185B. However, for the year 1932-33 this course may be taken by seniors without special prerequisite.

A study of population in the modern period; modern migration and its relation to culture contacts, conflict, and interchange.

187. Social Problems. (3) II. Assistant Professor PANUNZIO
 Prerequisite: Economics 185A-185B. However, for the year 1932-33 this course may be taken by seniors without special prerequisite.
 A study of contemporary poverty, crime, and family disorganization; the means and agencies of reform and prevention.
 Two hours of lectures and discussion; one hour laboratory with stated periods for small-group consultation and directed study.

COMMERCE

TEACHERS' COURSES

- †A. Typing. (No credit) Either half-year. Tu Th, 10. Mrs. ALLEN
 Fee, \$6.00.
 A study of the principles involved in learning to use the typewriter.
- †B. Shorthand. (No credit) I. M W F, 10. Mrs. ALLEN
 Fee, \$10.00.
 A study of the beginning principles of Gregg shorthand. Sight reading, penmanship drills, dictation.
16. Advanced Typing. (2) Either half-year. Tu Th, 2. Mrs. ALLEN
 Prerequisite: Commerce A or the equivalent. Fee, \$2.50.
 A study of business letters, outlines, legal papers, filing, tabulation. Technique emphasized.
17. Shorthand. (3) Either half-year. M W F, 9. Mrs. ALLEN
 Prerequisite: Commerce B or the equivalent.
 The completion of the Gregg Manual. Advanced reading, dictation, transcription.
- 18A-18B. Penmanship. (2-2) Beginning either half-year. Tu Th, 9, 10. Mrs. PLOUGH
 A. A study of the principles of business handwriting; a survey of the methods of teaching penmanship in the elementary schools.
 B. Advanced study and practice in handwriting; a survey of the methods of teaching penmanship in the secondary schools.
197. Methods of Teaching Commercial Subjects. (2) I. Tu Th, 11. Mrs. ALLEN
198. Commercial Education. (2) II. Associate Professor NOBLE and the STAFF

† Although Commerce A and B give no credit, they are counted on a student's allowable program as 1 and 2 units respectively.

EDUCATION

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

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

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

MARVIN LLOYD DARSIE, Ph.D., Professor of Education and Dean of the Teachers College.

MERTON E. HILL, Ed.D., Professor of Education.

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

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

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

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

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

CLARENCE HALL ROBISON, Ph.D., Associate Professor of Education and Associate Director of Admissions.

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

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

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

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

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

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

EMILY TODD BELL, Assistant in Kindergarten-Primary Education.

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

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

DAVID F. JACKY, B.S., M.A., Lecturer in Education and Assistant Supervisor of Classes for the Training of Trade and Industrial Teachers.

Letters and Science List.—Courses 103, 121, 122, 128, 130, 170, 189, 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.

Fees.—Education 106A, 106B, \$1.25.

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 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 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.

4. The General Secondary Credential.

One year of post graduate work following the bachelor's degree is required for this credential. No graduate work 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. Twelve units of credit in education chosen from 100K, 103, 121, 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 before the junior certificate is awarded. The student must show ability to sing and play music such as "Songs for the Little Child" by Kohlsaat and Baker, and music for rhythmic interpretation of the type in "Robinson's School Rhythms."

- a. Preparation for the major: Art 22N, 30K; Biology 1, 12; Psychology 1A, 1B; Physical Education 111K.
- b. The major: Education 100K, 101K, 102, 103, 104K, 106A, 106B, Teaching K190A, K190B.
- c. Majors in Kindergarten-Primary Education may qualify for the Elementary Credential upon the completion of Geography 1A, 1B; History 39; Mathematics 19; Education 130.*

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

2. Leading to the Elementary Credential—

- a. Preparation for the major: Art 22N, 30E; Geography 1A, 1B; History 39; Mathematics 19; Music 60; Psychology 1A, 1B; Physical Education 111E.
- b. The major: Education 100E, 101E, 102, 103, 104E; †Teaching E190A, E190B.
- c. Majors in 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.*

LOWER DIVISION COURSES

50. Introduction to Education. (3) Either half-year.

Associate Professor EBY

An orientation course in which are considered the meaning of education, the basic educational terms, the several fields of education and their differentiation, teaching as a profession, and the major problems and tendencies in modern education.

UPPER DIVISION COURSES

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—Elementary.

Professor WILLIAMS

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—Elementary.

Associate Professor EBY, Assistant Professor SEEDS,
Miss GIDDINGS

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

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

102. Introduction to Educational Measurement. (2) Either half-year.
 M W, 8; Tu Th, 8. Professor WILLIAMS
 Prerequisite: Psychology 1A, 1B.
 An introduction to the problem of measuring the outcomes of instruction.
103. Social Foundations of Education. (3) Either half-year.
 M W F, 8, 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
 M W F, 10, 3.
 Prerequisite: Education 101K.
 Section E—Elementary. Professor MERIAM
 M W F, 10, 11, 12.
 Prerequisite: Education 101E.

Elective Courses

- 106A-106B. Primary Activities. (2-2) Either half-year.
 Associate Professor McLAUGHLIN and the STAFF
 Prerequisite: Education 100K. Fee, \$1.25 per semester.
 A. Literature for young children.
 B. Primary activities.
113. Nursery School Education. (3) Either half-year.
 Associate Professor McLAUGHLIN, Mrs. ROBERTS
 Prerequisite: Education 100K; Psychology 112, or equivalents.
121. Philosophy of Education. (3) II. Sir JOHN ADAMS
 M W F, 3.
 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) Either half-year. Sir JOHN ADAMS
 M W F, 2.
 The evolution of educational practices and ideals with emphasis on social, economic, and philosophical backgrounds.
128. Comparative Education. (3) I. Sir JOHN ADAMS
 Prerequisite: senior standing and consent of the instructor.
 A critical survey of modern school practices with special reference to conservative and progressive trends.

130. Elementary Education. (2) Either half-year. Tu Th, 9.
 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.
131. Problems in Elementary Education. (2) II. Professor MERIAM
 Prerequisite: senior standing and consent of the instructor.
 A critical study of problems associated with current tendencies toward reorganization of curriculum materials and methods of teaching.
132. The Supervision of Teaching. (2) Either half-year.
 Professor WADDELL
 Prerequisite: Education 104E, or equivalent.
 The technique of supervision, with special emphasis upon the measurement of teaching efficiency.
133. Educational Diagnosis. (2) I. Professor WILLIAMS
 Prerequisite: senior standing and consent of the instructor.
 The use of standard tests and elementary statistical techniques in solving problems of school, class, and individual diagnosis.
135. Rural Society and Education. (3) 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.
138. Problems in Rural Education. (2) II. Associate Professor EBY
 Prerequisite: sophomore standing.
 A study of rural school conditions with an evaluation of the means for their improvement. Special and individual problems. Field visits.
143. Administration of Secondary Education. (2) Either half-year.
 Professor HILL
 Registration limited to experienced administrators.
 Provision will be made for extensive field work and practical application of principles of administration.
160. Vocational Education. (2) II. 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.
164. Vocational Guidance. (2) I. Tu Th, 2. Mr. JOHNSON
 The need of vocational guidance in a changing industrial order. The technique of guidance, as exemplified in case studies.
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.

179. The Junior College. (2) Either half-year. Professor HILL
Prerequisite: senior standing and consent of the instructor.
Growth of the junior college movement; functions of the junior college; its place in the educational system; types, curricula, problems; trends of reorganization in secondary and higher education.
181. Principles of Adult Education. (2) Either half-year. Th, 8, 9.
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.
189. Studies in Educational Sociology. (2) I. Professor DARSIE
Prerequisite: senior standing and consent of the instructor.
An intensive study of modern educational procedures as factors in social welfare and progress.
301. Principles of Agricultural Teaching. (3) Either half-year.
Assistant Professor OLDER

ENGLISH

FREDERIC THOMAS BLANCHARD, Ph.D., Professor of English.
 LILY B. CAMPBELL, Ph.D., Professor of English.
 SIGURD BERNHARD HUSTVEDT, Ph.D., Professor of English.
 ALFRED E. LONGUEIL, Ph.D., Associate Professor of English.
 HERBERT F. ALLEN, Ph.D., Associate Professor of English.
 *CHARLES ALMER MARSH, B.S., Associate Professor of Public Speaking.
 MARGARET SPRAGUE CARHART, Ph.D., Assistant Professor of English.
 CARL SAWYER DOWNES, Ph.D., Assistant Professor of English.
 GEORGE SHELTON HUBBELL, Ph.D., Assistant Professor of English.
 CARLYLE F. MACINTYRE, Ph.D., Assistant Professor of English.
 HARRIET M. MACKENZIE, Ph.D., Assistant Professor of English.
 LU EMILY PEARSON, Ph.D., Assistant Professor of English.
 LLEWELLYN MORGAN BUELL, Ph.D., Assistant Professor of English.
 MAJL EWING, Ph.D., Assistant Professor of English.
 ALICE O. HUNNEWELL, Instructor in English.
 EVALYN A. THOMAS, B.L.I., Instructor in English.
 FRANKLIN P. ROLFE, Ph.D., Instructor in English.
 KATHERINE E. COLLINS, M.A., Associate in English.
 WESLEY LEWIS, M.A., Associate in Public Speaking.
 DECALVUS W. SIMONSON, M.A., Associate in English.
 EDWARD BOCK, M.A., Associate in English.
 HARRISON M. KAER, M.A., Associate in Public Speaking.
 JAMES MURRAY, M.A., Associate in Public Speaking.
 PHILIP W. RICE, M.A., Associate in English.
 AGNES EDWARDS PARTIN, A.B., Associate in English.

Students must have passed Subject A (either examination or course) before taking any course in English or Public Speaking. Reference to regulations concerning Subject A will be found on page 108 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 100-10n, and 1600-160n. For regulations governing this list, see page 7.

Preparation for the Major.—English 1A-1B and 560-56D-56E, with an average grade of C.

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

* In residence second half-year only, 1932-33.

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, 56C, 56D, 56E; 6 units of upper division English.

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) 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
4D-4E. }

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.

51. Writing Based on Nineteenth Century Masterpieces. (2) Either half-year. Assistant Professors DOWNES, HUBBELL, MACKENZIE, PEARSON

56C-56D-56E. Survey of English Literature. (2-2-2) Three half-years. Assistant Professors BUELL, CARHART, DOWNES, HUBBELL, MACINTYRE, MACKENZIE, PEARSON

This course duplicates course 56A-56B offered prior to September, 1931.

UPPER DIVISION COURSES

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

Group I—Unrestricted Courses

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

Assistant Professors CARHART, DOWNES, HUBBELL

Prerequisite: the consent of the instructor.

May be taken twice for credit of 4 un.

- *110. English Diction and Style. (3) Either half-year.
Assistant Professor HUBBELL
- 114A-114B. English Drama from the Beginning to 1900. (3-3) Yr.
Professor CAMPBELL, Assistant Professors BUELL, CARHART
- 121A-121B. Nineteenth Century Poetry. (3-3) Yr.
Professor HUSTVEDT, Associate Professors ALLEN, 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, 12.
- 125G-125H. English Prose, 1600-1900. (3-3) Yr.
Associate Professor ALLEN, Assistant Professors DOWNES,
EWING, MACKENZIE
- 130A-130B. American Literature. (2-2) Yr. Tu Th, 9, 12.
Assistant Professors DOWNES, HUBBELL
- 153A. Introduction to the Study of Poetry. (3) Either half-year.
Professor BLANCHARD, Associate Professor ALLEN
156. The Age of Elizabeth. (3) Either half-year.
Professor CAMPBELL, Associate Professor ALLEN
157. The Age of Milton. (3) Either half-year. Professor HUSTVEDT
161. The Teaching of English. (2) I. Tu Th, 11.
Assistant Professor MACKENZIE

*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.
Professor CAMPBELL, Associate Professor LONGUEIL, Assistant
Professors BUELL, PEARSON

A survey of from twelve to fifteen plays, with special emphasis on one chronicle, one comedy, and one tragedy.

* Not to be given, 1932-33.

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 seniors who have had equivalent preparation.

151H. Tragedy. (3) Either half-year.

M W F, 10. Professor CAMPBELL, Associate Professor ALLEN

151L. Chaucer. (3) Either half-year.

Professor HUSTVEDT, Associate Professor LONGUEIL

*167. The Age of Pope and Johnson. (3) Either half-year.

Professor BLANCHARD

Prerequisite: the consent of the instructor.

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 one 2-hour paper and one 3-hour paper, the first of which will take the form of an essay. The examination will cover English literature from the beginning to 1900. The papers will be set by the Board of Examiners of the Department. The student's preparation for this examination will presumably extend throughout the entire college course.

This examination cannot be counted as part of the 24-unit major, but may be counted on the 36-unit upper division requirement and on the 124 units required for graduation. It does not affect study-list limits, and should at no time be entered by the student upon his study-list. However, the student is advised to limit his program to 13 units during his last semester. Upon his passing the examination the grade assigned by the department will be recorded. Given each half-year, credit 3 units.

PUBLIC SPEAKING†

LOWER DIVISION COURSES

1A-1B. Elements of Public Speaking. (3-3) Beginning either half-year.

Associate Professor MARSH, Mr. KARR, Mr. LEWIS, 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).

* Not to be given, 1932-33.

† The University of California at Los Angeles does not offer a major in public speaking in the College of Letters and Science. Students wishing to satisfy the requirements for a major in public speaking are referred to the Announcement of Courses in the Departments at Berkeley.

5A-5B. Principles of Argumentation. (3-3) Yr. M W F, 10, 2.

Associate Professor MARSH, Mr. KARR, Mr. LEWIS

Prerequisite: Public Speaking 1A-1B and the consent of the instructor.

10A-10B. } Dramatic Interpretation. (3-3) Yr.
10C-10D. }
M W F, 2.

Miss THOMAS

UPPER DIVISION COURSES

110A-110B. Third-Year Public Speaking. (3-3)

Prerequisite: course 5A-5B.

Associate 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. }

Associate 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 arguments. Oral debates will be held in class.

† For the year 1932-33, this course will be given second semester only.

FRENCH

HENRY RAYMOND BRUSH, Ph.D., Professor of French.
 PAUL PÉRIGORD, Ph.D., Professor of French Civilization.
 ALEXANDER GREEN FITE, Ph.D., Associate Professor of French.
 MYRON IRVING BARKER, Ph.D., Assistant Professor of French.
 FRANCIS J. CROWLEY, Ph.D., Assistant Professor of French.
 MADELEINE LETESSIER, A.B., Associate in French.
 LOUIS F. D. BRIOS, M.A., Associate in French.
 MARIUS IGNACE BIENCOURT, Lic. ès Lettres, Associate in French.
 ANNA FÉNELON HOLAHAN, Ph.B., Associate in French.
 ALICE HUBARD, M.A., Associate in French.
 PAUL BONNET, Lic. ès Lettres, Associate in French.
 CLINTON C. HUMISTON, M.A., Associate in French.
 ———, Assistant 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 Latin A and B, or the equivalent must be completed before the beginning of the senior year. History 4A-4B, Philosophy 3A-3B, and a modern language are strongly recommended.

The Major.—Required: Twenty-four units of upper division French, including French 101A-101B, 109A-109B, 112A-112B.

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

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.

A. Elementary French. (5) Either half-year. Mr. BRIOS 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.

- B. Elementary French. (5) Either half-year.** Mr. BRIOIS in charge
 M Tu W Th F, 12, 2.
 Prerequisite: course A 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.**
 M W F, 9, 11, 2. Assistant Professor CROWLEY in charge
 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.
- CD. Intermediate French. (5) Either half-year.**
 Assistant Professor CROWLEY in charge
 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.**
 M W F, 8, 9, 2. Assistant Professor CROWLEY in charge
 Prerequisite: course C or four years of high school French.
- 5A-5B. Advanced French. (3-3) Yr.** Professor PÉRIGORD, Mr. BRIOIS
 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) II.** 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.**
 Assistant Professors BARKER, CROWLEY, Mr. BIENCOURT
 M W F, 10, 2.

109A-109B. A Survey of French Literature and Culture. (3-3) Yr.

Professor PÉRIGORD, Mr. HUMISTON

Sec. 1, M W F, 11; given in French and limited to French majors.
Sec. 2, M W F, 12; given in English; does not count on the major in French.

(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.

Associate Professor FITE

115A-115B. Modern French Drama. (2-2) Yr.

Associate Professor FITE

118A-118B. The Sixteenth Century. (2-2) Yr.

Professor BRUSH

120A-120B. The Seventeenth Century. (2-2) Yr.

Assistant Professor BARKER

121A-121B. The Eighteenth Century. (2-2) Yr.

Tu Th, 2.

Assistant Professor CROWLEY

130A-130B. Grammar, Composition and Style. (3-3) Yr.

M W F, 10.

Associate Professor FITE

Prerequisite: an average grade higher than C in French courses.

Practice in oral and written composition based on selected models.
This course is required 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

Presentation of the larger cultural elements in European history as caused, influenced, diffused, or interpreted by the French people.

Lectures in English, reading in French or English. Intended primarily for 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.

GEOGRAPHY

GEORGE McCUTCHEEN McBRIDE, Ph.D., Professor of Geography.
 BURTON M. VARNEY, Ph.D., Associate Professor of Geography.
 MYRTA LISLE McCLELLAN, B.S., Assistant Professor of Geography.
 CLIFFORD M. ZIERER, Ph.D., Assistant Professor of Geography.
 RUTH EMILY BAUGH, Ph.D., Assistant Professor of Geography.
 KAZUO KAWAI, Ph.D., Instructor in Geography and History.
 HALLOCK F. RAUP, M.S., Associate in Geography.
 WILLIAM G. CUNNINGHAM, A.B., 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, 5B, 8. Recommended: Botany 1, Economics 1A-1B, one year of history, Physics 1A-1B, Political Science 3A-3B, Geology 1B, and at least one modern foreign language.

The Major.—The minimum requirement for the major is 18 or 21 units of upper division work in geography, including course 101, 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 (for commerce majors, 5A-5B); 6 units of upper division geography selected from the Letters and Science List.

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

LOWER DIVISION COURSES

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

Assistant Professor McCLELLAN, Mr. RAUP, Mr. CUNNINGHAM

Lectures, two hours; laboratory, two hours; field trips. Fee, \$2.00 per half-year.

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

An expenditure of \$4.00 for field trips may be incurred by students in 1B.

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

Associate Professor VARNEY

Lectures, two hours; laboratory, two hours.

Prerequisite: sophomore standing.

A study of the earth's atmosphere and the phenomena which produce weather and climate; recording of meteorological observations; work with meteorological instruments; study of weather maps.

- 5A-5B. Economic Geography. (3-3) Beginning either half-year.**
 Assistant Professor ZIERER, Mr. RAUP
 (A) No prerequisite, but limited to prospective majors in economics and commerce. Not open to students who have credit for Geography 1A-1B.
 A brief study of those elements of the natural environment essential to a geographic interpretation of economic activities.
 (B) Prerequisite: Geography 5A or 1A-1B.
 The principles of economic geography as developed from a study of representative commodities, industries, and areas.
- 8. The Geographic Basis of Human Society. (3) Either half-year.**
 Prerequisite: Geography 1A-1B. Assistant Professor BAUGH
 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 (or, for majors in economics and commerce, 5A-5B) is prerequisite to all upper division courses except 181.

- 101. Field Course: the Geography of Los Angeles and its Environs.**
 (3) II. Saturdays. Assistant Professor ZIERER
 An expenditure of \$10 for transportation may be incurred by each student; registration to be made only after consultation with the instructor.
 A field study in 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) I.** 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) II.**
 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 Anglo-America. (3) I.**Assistant Professor ZIERER**

Consideration of the principal economic activities and life of the people in the United States, Canada, and Alaska in relation to the natural environment.

122A-122B. The Geography of Latin America. (3-3) Yr.**Professor McBride****(A) South America.****(B) Mexico, Central America, and the West Indies.**

A study of the physical conditions characterizing the countries of Latin America, particularly in relation to the life of the inhabitants.

123A-123B. The Geography of Europe. (2-2) Yr.**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) Either half-year.**Dr. KAWAI**

A study of the geographic factors which determine the social and economic conditions in the leading countries of Asia.

131. The Geography of California. (3) Either half-year.**Assistant Professor BAUGH**

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 5B.**

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.

171A-171B. The Geographic Setting of American History. (2-2) Yr.**Professor McBride**

Additional prerequisite: a university course in American history.

The purpose of this course is to study the relation of the physical environment to the distribution, culture, and historical development of the peoples inhabiting the Americas.

(A) Anglo-America. (B) Latin America.

* Not to be given, 1932-33.

173. The Historical Geography of the Mediterranean Region. (2) II.

Assistant Professor BAUGH

A study of the geographic factors operative in the Mediterranean lands, particularly in their influence on ancient history.

181. Current Problems in Political Geography. (2) Either half-year.

Prerequisite: junior standing.

Dr. KAWAI

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.

Professor McBRIDE and the STAFF

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.

EDGAR K. SOPER, Ph.D., Associate Professor of Geology.

ALFRED R. WHITMAN, Ph.D., Associate Professor of Geology.

U. S. GRANT, Ph.D., Assistant Professor of Geology.

JOSEPH MURDOCH, Ph.D., Assistant Professor of Geology.

ROBERT WALLACE WEBB, M.S., Assistant 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; engineering drawing. Certain of these preparatory courses may be postponed to the upper division by permission of the department. Recommended: French or German.

The Major.—Geology 102A-102B (4), 103 (4), 199A-199B (4), and 12 to 18 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, \$2 per half-year.

GEOLOGY

- 1A. General Geology: Dynamical and Structural. (3) Either half-year.

M W F, 8, 12.

Associate Professor SOPER, Assistant Professor MURDOCH

Prerequisite: Elementary chemistry and general science.

Two field trips (half-day) and six section meetings to be arranged during the semester.

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.

Prerequisite: Geology 1A or 1C.

A study of the geological history of the earth and its inhabitants, with special reference to North America.

10. General Geology: Physiographic. (3) Either half-year.

Professor MILLER, Associate Professor SOPER,
Assistant Professor GRANT

M W F, 10, 11, 3.

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.)

20. Map Study of Physiography. (1) I.

Assistant Professor GRANT, Mr. WEBB

Prerequisite: Geology 1A or 10.

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, 10; 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, origins, mode of occurrence and nomenclature of rocks, and description of the more common types, accompanied by determinative laboratory practice.

***104. Petrographical Laboratory. (3) II. 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, 1932-33.

Geology

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, 116.
 Geology applied to exploration for petroleum; the geology of the principal oil fields of the world with emphasis upon United States fields; and field methods in oil explorations. Lectures, map work, problems and field trips to nearby oil fields.
116. **Structural Geology.** (3) I. Associate Professor SOPER
 Lecture, M W, 11; laboratory, W, 2-5.
 Prerequisite: Geology 1A; Geology 102A, which may be taken concurrently; Geology 103. A working knowledge of descriptive geometry is desirable.
 The phenomena of fracture, folding, flow, and the graphic solution of problems with laboratory and field investigations.
- 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.
 Assistant Professor MURDOCH, Mr. WEBB
 Lecture, M, 1; laboratory, six hours.
 Prerequisite: Elementary chemistry and physics. Fee, \$2 per half-year.
 Lectures and laboratory practice in crystal morphology and projection, determination of minerals by their physical and chemical properties, and descriptive mineralogy.

PALEONTOLOGY*

111. Systematic Paleontology. (4) I. Assistant Professor GRANT
Lectures, Tu Th, 11; laboratory, 6 hours.
Prerequisite: Geology 1B or Paleontology 1.
A general introduction to the study of invertebrate fossils.
112. Advanced Historical Geology. (3) II. Assistant Professor GRANT
Lecture, Th, 11; laboratory, 6 hours.
Prerequisite: Paleontology 111, Geology 1B.
A general survey of earth history from fossil and physical evidence. The relationship between physical events and faunal evolution is stressed.
113. Tertiary Paleontology of California. (2) II. Assistant Professor GRANT
Lecture, Tu, 11; laboratory, 3 hours.
Prerequisite: Paleontology 111.
Two field trips (half-day) may be required.
An introductory course in the marine invertebrate paleontology and stratigraphy of California. A portion of the course is devoted to a systematic study of fossil Mollusca and Echinoidea as a preparation for the recognition of the more important faunal horizons. Zoology 1A is recommended as a preparatory course.

* Courses in Vertebrate Paleontology may be found in the announcement of the Department of Biology (p. 24).

GERMAN

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

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

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

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

PHILIP ROBERT PETSCH, J.D., Instructor in German.

GOTTFREY EHRlich, Ph.D., Instructor in German.

CHRISTEL B. SCHOMAKER, M.A., Associate in German.

MILDRED J. WEINSVEIG, M.A., Assistant 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), C-D (6) and 6A-6B (4) or their equivalents. Recommended: History 4A-4B, English 1A-1B, Philosophy 3A-3B.

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

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.

Associate 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.

Associate Professor REINSCH in charge

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. Intermediate German. (3) I. Associate Professor DIAMOND in charge
Prerequisite: course B or three years of high school German.

D. Intermediate German. (3) II. Associate Professor DIAMOND in charge
Prerequisite: course C or four years of high school German.

CD. Intermediate German. (5) II.
Associate Professor DIAMOND in charge
Prerequisite: course B or three years of high school German.

6A-6B. Review of Grammar, Composition and Conversation. (2-2) Yr.
Associate Professor REINSCH
Prerequisite: course B or three years of high school German.

19. Dramatic Interpretation in German. (2) I.
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 preceding semester. The work of the course will end with the production and this production shall constitute the examination. This course may be taken only twice for credit.

UPPER DIVISION COURSES

The prerequisite for all upper division courses is course D (or CD) or the equivalent. Major students are also required to take 6A-6B.

104A-104B. Introduction to Modern German Literature. (3-3) Yr.
Associate Professor REINSCH
Selected readings from nineteenth century authors.

105A-105B. German Classics of the Eighteenth Century. (3-3) Yr.
Associate Professor DIAMOND
Selected works of Lessing, Goethe, Schiller.

106A-106B. Grammar, Composition, and Conversation. (2-2) Yr.
Assistant Professor DOLCH

106C-106D. Grammar, Composition, and Conversation. (2-2) Yr.
Prerequisite: course 106A-106B. Mr. SCHOMAKER

110A-110B. German Lyrics and Ballads. (2-2) Yr.
Associate Professor HOFFMANN
German ballad and lyric poetry from the Middle Ages to the present.

111A-111B. The German Novel. (2-2) Yr. Associate Professor DIAMOND
Prerequisite: course 104A-104B, 105A-105B, or 106A-106B.

Selected novels of Goethe, Freytag, Ludwig, Keller, Raabe, Meyer, Fontane, and others.

118A-118B. History of German Literature. (3-3) Yr.**Associate Professor HOFFMANN****Prerequisite:** course 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.****140A-140B. German Civilization. (2-2) Yr.****Prerequisite:** junior standing. **Associate Professor HOFFMANN****Lectures and reports. Conducted in English.****A general survey of the development of German civilization in its more important cultural manifestations.**

HISTORY

- FRANK J. KLINGBERG, Ph.D., Professor of History.
 WALDEMAR WESTERGAARD, Ph.D., Professor of History.
 *JOHN CARL PARISH, Ph.D., Professor of History.
 JOSEPH B. LOCKEY, Ph.D., Professor of History.
 ROWLAND HILL HARVEY, Ph.D., Associate Professor of History.
 LOUIS K. KOONTZ, Ph.D., Associate Professor of History.
 DAVID K. BJORK, Ph.D., Assistant Professor of History.
 WILLIAM F. ADAMS, Ph.D., Assistant Professor of History.
 LUCY M. GAINES, M.A., Assistant Professor of History.
 ROLAND D. HUSSEY, Ph.D., Assistant Professor of History.
 JOHN W. OLMSTED, M.A. (Oxon.), Assistant Professor of History.
 ANDRÉ LOBANOV-ROSTOVSKY, Assistant Professor of History.
 JOHN W. CAUGHEY, Ph.D., Instructor in History.
 BRAINERD DYER, Ph.D., Instructor in History.
 KAZUO KAWAI, Ph.D., Instructor in History and Geography.
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- LILY B. CAMPBELL, Ph.D., Professor of English.

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 1A-1B, or Philosophy 3A-3B. If a second history course is elected, History 8A-8B should be included. 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,

* Absent on leave, 1932-33.

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 following course will be accepted in partial fulfillment of the major in history: Ancient History 112A-112B.

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

LOWER DIVISION COURSES

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

Professor WESTERGAARD, Assistant Professors GAINES,
OLMSTED, LOBANOV

M W F, 8, 9, 11, 12, 2, 3; Tu Th, 1-2:30.

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

Professor KLINGBERG, Associate Professor HARVEY, Assistant
Professors ADAMS, OLSTED

M W F, 9, 10, 12, 2; Tu Th, 9:30-11.

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

Professor LOCKEY, Assistant Professors HUSSEY, CAUGHEY

M W F, 8, 9, 11, 12, 3; Tu Th, 11-12:30.

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

(A) United States

(B) Latin America.

(C) England.

(D) Continental Europe.

Associate Professor HARVEY

Assistant Professor ADAMS

*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 CAUGHEY

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

76. Economic History of the United States. (3) II.

Associate Professor HARVEY

* Not to be given, 1982-83.

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, 9.

*131A-131B. The Renaissance. (2-2) Yr.
Professors KLINGBERG, CAMPBELL
(A) The civilization of the Renaissance in Italy.
(B) The civilization of the Renaissance in northern Europe.

142A-142B. Modern Continental Europe since 1648. (3-3) Beginning either half-year.
Professor WESTERGAARD, Assistant Professors ADAMS, OLMSTED

*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.

149A-149B. History of Russia. (2-2) Yr. Assistant Professor LOBANOV
Russia from its earliest days to the present.

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, 12.
Professor LOCKEY, Assistant Professor HUSSEY

* Not to be given, 1932-33.

History

- *164-165. 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.

Associate Professor KOONTZ, Dr. DYER

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. Dr. 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.

- *190. Social Sciences for Junior High Schools. (2) Either half-year.

Associate Professor KOONTZ

This course duplicates 77 given prior to 1930-31.

- 191A-191B. History of the Far East. (3-3) Yr. Dr. KAWAI

A general survey of the history of the Far East from the earliest times to the present, with emphasis on recent international relations.

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

Professors KLINGBERG, LOCKEY, WESTERGAARD, Associate

Professor KOONTZ, 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.

Laboratory Work

Each member of the instructional staff will devote two hours a week to the guidance of groups of students in historical laboratory work, with emphasis on the use of the library and the evaluation and synthesis of historical materials. Supplementary to courses listed above; no additional credit. Students will participate in this plan by rotation, so that only a limited amount of additional time will be required of each student.

* Not to be given, 1982-83.

HOME ECONOMICS

HELEN B. THOMPSON, Ph.D., Professor of Home Economics.

GRETA GRAY, Ph.D., Associate Professor of Home Economics.

VERE R. GODDARD, Ph.D., Assistant Professor of Home Economics.

MAUD D. EVANS, M.A., Associate in Home Economics.

FLORENCE A. WILSON, M.A., Associate in Home Economics.

PAULINE F. LYNCH, M.A., Associate in Home Economics.

BERNICE ALLEN, M.A., Associate in Home Economics.

MARGARET C. JONES, Ed.D., Associate in Home Economics and Supervisor of Classes for the Training of Home Economics Teachers.

A student may select a major in this department either (a) in Home Economics, leading to the Bachelor of Education degree in the Teachers College and to the Special Secondary Credential in Home Making; or (b) in Household Science, leading to the Bachelor of Arts degree in the College of Letters and Science.

THE TEACHERS COLLEGE

Preparation for the Major in Home Economics.—Home Economics 1A, 1B, 11A, 11B, 43A; Art 22N, 13; Chemistry 2A, 2B, 10; Physiology 1; Economics 1A.

The Major in Home Economics, leading to the Special Secondary Credential in Home Making.—Home Economics 108, 110, 118A, 120, 162A, 162B, 164A, 164B, and five 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 or 2, 162A, 175, 179; or
2. Home Economics 1A, 11A, 32, 43A or 43B, 162A, and 6 units of advanced home economics approved by the department; or
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

Letters and Science List.—Home Economics 1A-1B, 11A-11B, 110, 118A-118B, 120, and 159 are included in the Letters and Science List of Courses. For regulations governing this list, see page 7.

Preparation for the Major in Household Science.—Home Economics 11A-11B, 43A; Chemistry 1A-1B, 8A; Economics 1A-1B; Physiology 1.

The Major in Household Science.—Eighteen units in Home Economics are required, including 162A-162B, at least six units chosen from 110, 118A, and 120, and five to eight units chosen from 118B, 125, 159, 164A, 164B, 199A, 199B; and six additional units to be selected with the approval of the department from upper division courses in chemistry, economics, psychology, or zoology.

Laboratory Fees.—The fee required for courses 1A, 1B, 2, 175, is \$1.50; for courses 108, 199A, 199B, is \$2.00; 11B is \$2.50; 110, 120, 125, 159 is \$3.00; 11A, 33 is \$4.00.

LOWER DIVISION COURSES

- 1A-1B. Clothing (Household Art 1A-1B). (3-3) Beginning either half-year.

Miss LYNCH, Miss WILSON

Prerequisite: matriculation credit in "clothing" or Art 22N.

Fee, \$1.50 per half-year.

The study of kinds and qualities of materials for different uses; typical forms of clothing; artistic appreciation, standards and hygienic characteristics of dress; construction time studies; quantity and cost estimates of wardrobes for individuals and for family groups.

2. The Study of Dress. (3) II.

Miss LYNCH

Prerequisite: Home Economics 1A. Fee, \$1.50.

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.

Prerequisites: High school chemistry or Chemistry 2A. Miss ALLEN
Fee, \$4.00.

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.

Prerequisite: Home Economics 11A. Fee, \$2.50. Miss EVANS

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 subnormal conditions of growth and physical development.
33. Elementary Dietetics. (3) II. Miss ALLEN
Prerequisite: Chemistry 10, Home Economics 11A, 11B, 32. Fee, \$4.00.
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.
Housing equipment; standards and methods of household work; markets, prices and values of house furnishings; accounts; management problems including those pertaining to the social aspects of the home in the care and training of children.

UPPER DIVISION COURSES

108. Textiles. (2) Either half-year. Miss WILSON
Prerequisite: Art 22N, Chemistry 10, Economics 1A. Fee, \$2.00.
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. (3) Either half-year. Assistant Professor GODDARD
Prerequisite: Chemistry 8A or 10, and six or more units in Home Economics. Fee, \$3.00.
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. Nutrition. (3) I. Professor THOMPSON
Prerequisite: Chemistry 8A or 10, Home Economics 110, Physiology 1.
Discussions of the chemical and biological factors in metabolism, energy transformation, the quantitative relations of the ash constituents, nitrogen and mineral balances in both normal and pathological conditions. Attention is given to recent literature bearing upon growth and upon normal and subnormal nutrition in infancy and childhood.
- *118B. Nutrition. (2) Yr. Professor THOMPSON
Prerequisite: course 118A.

* Not to be given, 1932-33.

120. Dietetics. (3) Either half-year. Assistant Professor GODDARD
Prerequisite: Chemistry 8A or 10, Home Economics 118. Fee, \$3.00.

Daily food requirements as indicated by the experimental studies that have established the quantitative basis in dietetics; calculations of standard portions and combinations of foods; computations and scoring of dietaries with special reference to food requirements in childhood and adolescence and in varying physiologic conditions at all periods of life.

125. Experimental Cookery. ²(2) I. Associate Professor GRAY
Prerequisite: Home Economics 110. Fee, \$3.00.
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. Miss EVANS, Miss JONES
Prerequisite: Psychology 1A, 1B, six or more units in home economics.

Study of typical courses and their presentation; critical review of texts and references for elementary and secondary schools.

159. Metabolism Methods. (3) II. Assistant Professor GODDARD
Prerequisite: Home Economics 120. Fee, \$3.00.

Laboratory observations of the influence of special diets upon various phases of metabolism; practice in the methods for the analysis of blood and of digestion and metabolic products; determinations of the respiratory exchange and of nitrogen and mineral excretions.

- 162A-162B. Economics of the Household. (2-2) Beginning either half-year. Associate Professor GRAY

Prerequisite: Economics 1A, 1B, or six or more units in Home Economics.

First half-year: Standards of living; size, composition, income and expenditures of American households; study of the factors which have developed the modern household and which influence its activities and its selection and utilization of goods and services.

Second half-year: Readings and reports of recent literature and discussion of the trends in the development of the art of consumption.

Home Economics 162A is not open to students who have taken 160A.

164A-164B. Household Administration. (2-2) Beginning either half-year.

Associate Professor GRAY, Miss JONES

Prerequisite: Economics 1A, 1B, or six or more units of Home Economics, Psychology 1A.

First half-year: Household sanitation and family responsibility for health.

Second half-year: Study of the social development of the home and its contribution to culture at different stages of civilization; modern problems of family relationships pertaining to the social and personal well being of the group.

Home Economics 164A is not open to students who have taken 160B.

175. Advanced Study of Costume. (3) II.

Miss WILSON

Prerequisite: Art 13, Home Economics 1A, 1B. Fee, \$1.50.

Practice in the development of designs for individuals and of the adaptation of materials and methods of construction to the various problems of modern costume.

179. Economics of Textiles and Clothing. (3) I.

Miss JONES

Prerequisite: Economics 1A, 1B, or Home Economics 1A, 1B.

The history and organization of the clothing trades and industries; the manufacture and utilization of fabrics; qualities and standards of textiles and their hygienic uses; individual and household practices in clothing selection.

199A-199B. Problems in Home Economics. (2-2) Yr.

Professor THOMPSON, Associate Professor GRAY, Assistant Professor GODDARD

Prerequisite: senior standing with such special preparation as the problem may demand. Fee, \$2.00 per half-year.

Assigned problems for individual investigation, the work of each student to be directed by the instructor in whose division of the field the problem lies.

MATHEMATICS

EARLE R. HEDRICK, Ph.D., Professor of Mathematics.

GEORGE E. F. SHERWOOD, Ph.D., Professor of Mathematics.

GLENN JAMES, Ph.D., Associate Professor of Mathematics.

PAUL H. DAUS, Ph.D., Associate Professor of Mathematics.

WILLIAM M. WHYBURN, Ph.D., Associate Professor of Mathematics.

RAYMOND GARVER, Ph.D., Associate Professor of Mathematics.

HARRIET E. GLAZIER, M.A., Assistant Professor of Mathematics.

GUY H. HUNT, C.E., Assistant Professor of Applied Mathematics.

EUPHEMIA R. WORTHINGTON, Ph.D., Assistant Professor of Mathematics.

WENDELL E. MASON, M.S.E., M.E., Assistant Professor of Applied Mathematics.

CLIFFORD BELL, Ph.D., Assistant Professor of Mathematics.

CARROLL P. BRADY, A.B., 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 all undergraduate courses in civil 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, 6, 9A and 9B with an average grade of C, except that students who have completed two years of high school algebra and also trigonometry may be excused, upon examination, from course 8. Courses 5, 9A, 9B, 109, may be replaced, by permission, by the equivalent courses 3A, 3B, 4A, 4B respectively. Recommended: physics, astronomy, and a reading knowledge of French and German.

The Major.—Mathematics 111, 112A-112B, and 119, together with fourteen additional upper division units, must be included in every mathematics major. The student must maintain an average grade of C in upper division courses in mathematics.

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

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 may be excused, upon examination, from course 8.

Pre-Engineering and Pre-Mining.—The University of California at Los Angeles offers the first two years 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 pre-engineering adviser before making out their programs.

The minimum requirements for admission to the courses 3A-3B, 4A-4B or to 3A, 3C-4B are one and one-half years of algebra, plane geometry, plane 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 BELL, GLAZIER

Prerequisite: high school geometry and one and one-half years of elementary algebra or Mathematics 8.

F. Spherical Trigonometry. (1) Either half-year.

Associate Professor WHYBURN

Prerequisite: plane trigonometry.

2. Mathematics of Finance. (3) Either half-year. M W F, 10.

Prerequisite: Mathematics 8.

Associate Professor DAUS

3A. Plane Analytic Geometry. (3) Either half-year. M W F, 8, 9, 12.

Assistant Professors BELL, MASON

Prerequisite: Mathematics C and 8 or the equivalents.

3AB. Analytic Geometry and Differential Calculus. (6) II.

M Tu W Th F, 7:45.

Associate Professor DAUS

Prerequisite: Mathematics C and 8, or equivalents.

This course is equivalent to Mathematics 3A and 3B (or 5 and 9A, by permission).

3B. Differential Calculus. (3) II. Assistant Professors HUNT, GLAZIER

Prerequisite: Mathematics 3A or its equivalent.

3C. Differential and Integral Calculus. (6) I.

Professor SHERWOOD

M Tu W Th F, 7:45.

Prerequisite: Mathematics 3A.

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.

Associate Professors GARVER, JAMES

Prerequisite: Mathematics 3B.

Course 4B may be substituted for Mathematics 109 with the approval of the department.

5. Analytic Geometry. (3) Either half-year.

Assistant Professors MASON, WORTHINGTON

Prerequisite: Mathematics O and 8 or the equivalent.

6. Advanced Geometry. (2) Either half-year.

Tu Th, 10.

Associate Professor JAMES

Prerequisite: Mathematics 3A or 5, and consent of instructor.

8. College Algebra. (3) Either half-year. M Tu W Th F, 8, 9, 12.

Professor SHERWOOD, Assistant Professor HUNT and the STAFF.

Prerequisite: at least one year of high school algebra.

Within a few weeks the class meetings will be reduced to three a week for all students except the minority who require extra review and drill.

- 9A-9B. Differential and Integral Calculus. (3-3) Yr.

M W F, 9, 10, 11.

Associate Professors GARVER, WHYBURN

Prerequisite: Mathematics 5.

- 10A. Vectors and Allied Topics. (2) I.

Professor HEDRICK

This course may be taken only in conjunction with, or subsequent to, Mathematics 4A. It is prescribed for pre-engineering students in the mechanical and electrical engineering curricula.

- 10B. Elementary Differential Equations and Applications. (2) II.

Professor HEDRICK

This course may be taken only in conjunction with, or subsequent to, Mathematics 4B. It is prescribed for pre-engineering students in the mechanical and electrical engineering curricula. It is not equivalent to Mathematics 119, but students may not take both courses for full credit.

19. Foundations of Arithmetic. (2) Either half-year.

Assistant Professors GLAZIER, WORTHINGTON

Prerequisite: sophomore standing.

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, 12.

Prerequisite: Mathematics 5.

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.

Assistant Professor WORTHINGTON

Prerequisite: Mathematics 8 and 9A-9B.

Selected topics in 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, 9, 10, 11.
Prerequisite: Mathematics 9A-9B.
Professor SHERWOOD, Associate Professor GARVER
Course 4B may be substituted for Mathematics 109 with the approval
of the department.
111. Theory of Algebraic Equations. (3) Either half-year. M W F, 11.
Associate Professor JAMES, Assistant Professor BELL
Prerequisite: Mathematics 8 and 9A-9B.
- 112A-112B. Introduction to Higher Geometry. (2-2) Beginning either half-
year. Tu Th, 11. Associate Professor DAUS
Prerequisite: Mathematics 5, 6, and 9A-9B.
114. Modern Geometry. (3) II. Professor SHERWOOD
Prerequisite: Mathematics 6, 112A-112B.
- *115. Theory of Numbers. (3) II. Associate Professor DAUS
119. Differential Equations. (3) Either half-year. M W F, 11.
Associate Professor GARVER
Prerequisite: Mathematics 109 or its equivalent.
- 122A-122B. Advanced Calculus. (3-3) Yr. M W F, 10.
Prerequisite: Mathematics 109. Professor HEDRICK
124. Vector Analysis. (3) I. Associate Professors JAMES, WHYBURN
Prerequisite: Mathematics 109 and one year of college physics.
125. Analytic Mechanics. (3) II. Associate Professor WHYBURN
Prerequisite: Mathematics 109 or its equivalent.
190. The Teaching of Mathematics. (3) II. Assistant Professor GLAZIER
M W F, 12.
Prerequisite: Mathematics 9A-9B or its equivalent.
A critical inquiry into present-day tendencies in the teaching of
mathematics.

* Not to be given, 1982-88.

CIVIL ENGINEERING†

11A-11B. Plane Surveying Lectures. (2-2) Beginning either half-year.

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, 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. Fee, \$5 per half-year.

3. Summer Class in Plane Surveying. (3) Assistant Professor MASON

Prerequisite: Civil Engineering 11A-11B. Fee, \$25.

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.

MECHANIC ARTS

HAROLD W. MANSFIELD, Assistant Professor of Mechanic Arts and Director of Shops.

FOSS R. BROCKWAY, Associate in Mechanic Arts.

JAMES W. MARSH, Associate in Mechanic Arts.

JOHN B. PHILLIPS, Associate in Mechanic Arts.

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

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

WENDELL E. MASON, M.S.E., M.E., Assistant Professor of Applied Mathematics.

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.—Thirty units of advanced work approved by the department.

The Minor in Education.—Education 103, 164, 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 year. All applications must be approved by the Assistant Director of the Division of Vocational Education. A statement of the requirements for the Limited Credential in Industrial Arts Education will be found in Bulletin H-2 published by the State Board of Education.

*The College of Letters and Science**

Mechanical Engineering D, 1, 2, and 6 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; for Mechanical Engineering 10B the fee is \$5.

* The University of California at Los Angeles offers the first two years in preparation for admission to the junior year of the College of Engineering in the University at Berkeley. Students intending to pursue their studies in this college should present their programs for approval to the pre-engineering adviser.

MECHANICAL ENGINEERING*

- D. Engineering Drawing.** (2) 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) I. Mr. PAXTON
 M W F, 11.
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, Th, 11. Drafting, 1-4, six hours to be arranged.
 Design and delineation of simple machine parts in the drafting room, with special emphasis upon the production of drawings which conform to standard practice.
- 10B. **Treatment of Engineering Materials.** (2) Either half-year.
 Assistant Professor MASON, Mr. PHILLIPS, Mr. KELLER
 Fee, \$5.00.

MECHANIC ARTS**LOWER DIVISION COURSES**

10. **Shop Work.** (2) I. Mr. KELLER
 Fee, \$3.00.
 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
 Fee, \$3.00.
 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
 Fee, \$3.00.
 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.

* Not to be given, 1932-33.

40. Shop Work. (2) Yr.
Fee, \$3.00.

Mr. MARSH

Storage battery construction and repair; lead burning; battery charging, treatment, and care.

51. Architectural Drawing. (2) Yr. Assistant Professor MANSFIELD
Lettering, details of typical frame and masonry construction, plans, elevation, sections, and specifications.

- 65A-65B. The Automobile. (3-3) Yr. Mr. BROCKWAY, Mr. MARSH
Fee, \$3.00 per half-year.

(A) Principles of reconstruction and maintenance. Cut-away and dry chassis units used. Take down and assembly of automotive units; adjustment and operation of internal combustion engines; use and construction of automotive measuring devices.

(B) Principles of design and operation of gasoline and Diesel engines, clutches, gear sets, frames, springs, wheels, and tires, with demonstrations and instruction in adjustments and general upkeep of the automobile.

- 75A-75B. Shop Work. (2-2) Yr.
Fee, \$3.00 per half-year.

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

Fee, \$3.00 per half-year.

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 Technical Subjects. (3-3) Beginning either half-year.
Assistant Professor MANSFIELD, Mr. MARSH

UPPER DIVISION COURSES

- 100A-100B. Shop Work. (3-3) Yr.
Fee, \$3.00 per half-year.

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
 Fee, \$3.00.
 Analysis and construction of "projects" involving combined use of various tools, materials, and processes.
131. General Metal Work. (2) II. Mr. BROCKWAY
 Fee, \$3.00.
 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
 Fee, \$3.00 per half-year.
 (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
 Fee, \$3.00.
 Electric generators; motors; transformers; instruments and their principles and use; presented in lectures, demonstrations and shop applications.
- 150A-150B. Industrial Arts Drawing. (2-2) Yr.
Assistant Professor MANSFIELD
 Technical sketching, lettering, assembly and detail drawings, tracing and reproduction; drawing and design of shop projects suitable for high school classes.
160. Automotive Reconstruction. (3) II. Mr. BROCKWAY, Mr. MARSH
 Fee, \$3.00.
 Study and application of modern automotive maintenance technic, including cylinder boring, grinding and honing; piston fitting; precision valve fitting; and general automotive machine tool use.
161. Automotive Laboratory. (3) I. Mr. BROCKWAY, Mr. MARSH
 Fee, \$3.00.
 Testing of engines, fuels, and lubricants. Diagnosis of engine and automobile troubles.
- 176A-176B. Shop Work. (2-2) Yr. Mr. PHILLIPS
 Fee, \$3.00 per half-year.
 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

EDWARD J. MORAN, Lt. Colonel, U. S. Army, Professor of Military Science and Tactics.

RAYMOND C. BAIRD, Ph.B., LL.B., Major, U. S. Army, Assistant Professor of Military Science and Tactics.

FRANK J. PEARSON, Captain, U. S. Army, Assistant Professor of Military Science and Tactics.

JAMES E. MATTHEWS, Captain, U. S. Army, Assistant Professor of Military Science and Tactics.

WILLIAM V. WITCHER, Captain, U. S. Army, 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.

The University of California at Los Angeles does not offer a major in military science and tactics in the College of Letters and Science. In Berkeley, a combination major of military science and either (a) history and political science, or (b) jurisprudence may be 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 students will be collected by the Comptroller.

The student who is found by the Medical Examiner to be ineligible for enrollment in military science and tactics may be assigned by the Examiner to the individual gymnastics section of Physical Education 3.

The primary object of establishing units of the Reserve Officers' Training Corps is to qualify students for appointment in the Officers' Reserve Corps of the United States Army. Students who complete the advanced course and who participate in such summer camps as the Secretary of War may prescribe, are eligible upon graduation for appointment and commission by the President of the United States in the Officers' Reserve Corps, which is intended to furnish a great part of the commissioned personnel for the temporary forces which this nation will require in time of emergency.

The courses are divided into two groups, viz., the basic course and the advanced course.

Fee for 1A-1B, 2A-2B, 50 cents per half-year.

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 MORAN, Assistant Professors BAIRD, MATTHEWS, PEARSON, SHERMAN, WITCHER

†Field, M F, 8, 11, 1. Two hours of field instruction; one hour of class instruction. Fee, 50 cents per half-year.

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 MORAN, Assistant Professors BAIRD, MATTHEWS, PEARSON, SHERMAN, WITCHER

†Field, M F, 8, 11, 1. Two hours of field instruction; one hour of class instruction. Fee, 50 cents per half-year.

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 R. O. T. C. in this or any other institution where such course is given, to devote five hours per week during such period to military training prescribed and to pursue the courses of camp training during such period as prescribed by the Secretary of War.

.....
(Signature)

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 PEARSON

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, and aerial photographic interpretation and reading.

103B. Advanced Infantry Training. (3) Either half-year.

Tu W Th, 8, 11.

Assistant Professors MATTHEWS, 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, platoon and company and of the rifle squad, section, and platoon.

104A. Advanced Infantry Training. (3) Either half-year.

Tu W Th, 8, 11.

Assistant Professors BAIRD, MATTHEWS

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.

†Tu Th, 8, 11.

Assistant Professor BAIRD

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

THEODORE STEARNS, M.A. (Wurzburg), Professor of Music.

FRANCES A. WRIGHT, Associate Professor of Music.

BERTHA W. VAUGHN, Teacher of Voice.

SQUIRE COOP, Lecturer in Music.

ALEXANDER SCHREINER, Lecturer in Music and University Organist.

The Teachers College

Preparation for the Major.—Music 1A, 1B, 2A-2B, 4A, 4B, 7A, 7B, 8A, 8B, 55A, 55B.

The Major, leading to the Special Secondary Credential in Music.—Music 101, 105, 109A, 109B, 113A, 113B, 114A, 114B.

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

The Minor in Music.—1A, 1B, 2A, 2B, 9A, 9B, 113A, 113B.

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, 118A-B-C-D, are included in the Letters and Science List of Courses.

LOWER DIVISION COURSES

1A-1B. Solfeggio. (3-3) Yr.

Theory and practice of reading and writing music.

2A-2B. The History and Appreciation of Music. (3-3) Yr.

Mr. SCHREINER

The consideration of music from formal, esthetic, and historical standpoints.

4A-4B. Elementary Harmony. (3-3) Yr.

Professor STEARNS

Prerequisite: Music 1A-1B. By permission of the instructor 4A-4B may be taken concurrently with 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.

Mr. COOP

10A-B-C-D. Orchestral Practice. (1-1) Yr.

Mr. COOP

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

† Restricted to music majors.

- 55A-55B. Advanced Harmony. (3-3) Yr. Professor STEARNS
Prerequisite: Music 4A-4B.
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.

UPPER DIVISION COURSES

A certain degree of proficiency in piano playing is prerequisite to junior standing in the Department of Music.

101. Counterpoint. (2) I. Professor STEARNS
Prerequisite: Music 55A-55B.
Practice in one of the technical processes of music writing.
105. Composition. (2) II. Professor STEARNS
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.
- 112A-112B. Music Education. (3-3) Yr. Associate Professor WRIGHT
Prerequisite: junior standing.
Organization and administration of music in elementary and secondary schools.
- 113A-113B. The Music of Bach and Beethoven. (2-2) Yr.
Professor STEARNS
Prerequisite: junior standing.
- 114A-114B. Instrumentation. (2-2) Yr. Mr. COOP
Prerequisite: Music 55A-55B and senior standing.
Orchestra, theory and practice of the instruments.
- 118A-B-C-D. A Capella Choir. (1-1) Yr. Mr. COOP
Prerequisite or concurrent: 9A-B-C-D, and permission of instructor.
Study of public performance of the polyphonic music of the classical period.

110 -- Ensemble (2) Mr. Noack

PHILOSOPHY

CHARLES H. RIEBER, Ph.D., LL.D., Professor of Philosophy and Dean of the College of Letters and Science.

JOHN ELOF BOODIN, Ph.D., Professor of Philosophy.

DONALD A. PIATT, Ph.D., Professor of Philosophy.

HUGH MILLER, Ph.D., Assistant Professor of Philosophy.

DONALD C. WILLIAMS, Ph.D., Assistant Professor of Philosophy.

ERNEST C. MOORE, Professor of Education, Vice-President and Provost, University of California at Los Angeles.

JAMES H. TUTTS, Ph.D., LL.D., Lecturer in Philosophy.

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

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 adviser, 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, 2A-2B, or 3A-3B; 6 units of elective credit in upper division philosophy.

LOWER DIVISION COURSES

Students beginning the study of philosophy may elect 1A-1B, or 2A-2B, or 3A-3B.

1A-1B. Logic. (3-3) Yr.

Professor RIEBER

(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.

2A-2B. Introduction to Philosophy. (3-3) Yr.

Professor PIATT

Elementary survey of the general problems of philosophy and of the fundamental types of philosophy.

Supplies 5 AB last year

3A-3B. History of Philosophy. (3-3) Yr.

Professor BOODIN, Assistant Professors MILLER and WILLIAMS

An introductory course, tracing the thought of the major philosophers of the ancient and modern world.

50. Problems of Ethics and Religion. (2) II.

Assistant Professor WILLIAMS

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) I.

Assistant Professor MILLER

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.

102. Philosophy of John Dewey. (2) II.

Professor MOORE

104A-104B. Ethics. (3-3) Yr.

Professor PIATT

(A) Consideration of the meaning of morality, and a study of representative ethical theories.

(B) Social Ethics. Analysis of methods in social ethics, and illustrative study of one important social problem.

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

Prerequisite: Philosophy 3A-3B.

Reading of the *Critique of Pure Reason*, together with explanatory and critical comments on Kant's main position in the fields of religion and ethics.

*116. Plato. (2) I.

Professor BOODIN

Prerequisite: Philosophy 3A-3B.

The Philosophy of Plato will be considered, with special attention to its development in the *Republic*.

117. Aristotle. (2) I.

Professor BOODIN

Prerequisite: Philosophy 3A-3B.

Aristotle's philosophy and its significance for present thought.

119. Josiah Royce and Modern Idealism. (2) II.

Professor BOODIN

Prerequisite: Philosophy 3A-3B.

* Not to be given, 1932-33.

121. Social and Political Philosophy. (3) I. Assistant Professor MILLER
The principles of political organization, viewed in relation to representative theories of the nature of the individual and society.
122. British Empiricism. (2) I. Professor PIATT
Prerequisite: Philosophy 3A-3B.
An examination of the philosophies of Locke, Berkeley, and Hume.
- *123. Seventeenth Century Philosophy. (3) I. Assistant Professor MILLER
Prerequisite: Philosophy 3A-3B.
The rise of modern science, and the Cartesian and empirical philosophies based upon its principles.
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.
- *136A-136B. Esthetics. (3-3) Yr.
(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.
Prerequisite: Philosophy 3A-3B. Assistant Professor WILLIAMS
A study of the contemporary schools of philosophy.
146. Philosophy of Literature. (3) II. 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.
150. Philosophy of Science. (2) II. Professor PIATT
An enquiry concerning man's place in nature, seeking to determine the philosophical bearing of the fundamental concepts of the sciences.
151. Philosophy of Nature. (3) I. M W F, 11. Professor BOODIN
An interpretation of evolution and of man's place in the universe.
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.

* Not to be given, 1932-33.

161. Epistemology. (2) II. Assistant Professor MILLER
Prerequisite: Philosophy 3A-3B.
A study of the nature of knowledge in its formal and psychological characters.
163. Philosophy of Mind. (3) I. Assistant Professor WILLIAMS
A survey of doctrines of the behavior and structure of mind, with consideration of the relations of current psychological and philosophical views.
- *164. Advanced Logic. (3) I. Assistant Professor WILLIAMS
Prerequisite: Philosophy 3A-3B.
A study of the system of formal logic, deductive and inductive, with especial attention to newer developments in logical theory.
170. American Philosophy. (3) I. Professor TURTS
A study of typical American attitudes as expressed in theological, political, social, and legal theory, and more recently in technical philosophy.
174. Evolution of Morality. (3) II. Professor TURTS
Prerequisite: Philosophy 104A-104B and the permission of the instructor.
A study of the historical development of moral standards in relation to social, economic, and political conditions, and to custom, law, and religion.

* Not to be given, 1982-88.

PHYSICAL EDUCATION FOR MEN

WILLIAM H. SPAULDING, A.B., Director of Physical Education for Men.
FREDERICK W. COZENS, Ph.D., Associate Professor and Associate Director of Physical Education for Men.
PAUL FRAMPTON, Ed.B., Associate Supervisor of Physical Education for Men.
FRED H. OSTER, Assistant Supervisor of Physical Education for Men.
CECIL B. HOLLINGSWORTH, Ed.B., Associate in Physical Education for Men.
PATRICK MALONEY, Associate in Physical Education for Men.
DONALD K. PARK, A.B., Associate in Physical Education for Men.
WILBUR C. JOHNS, Associate in Physical Education for Men.
HARRY TROTTER, Assistant in Physical Education for Men.
PIEROE H. WORKS, A.B., Assistant in Physical Education for Men.
SILAS GIBBS, Ed.B., Assistant in Physical Education for Men.
WILLIAM BURKE, Assistant in Physical Education for Men.
HORACE S. CRAIG, Assistant in Fencing.

DONALD MCKINNON, M.D., Physician for Men.
WILLIAM J. NORRIS, M.D., Consultant, Student Health Service.
LEWIS GUNTHER, M.D., Consultant, Student Health Service.

Physical Education 3 is prescribed for all first-year and second-year undergraduate male students who 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.—High school chemistry or Chemistry 2A or Zoology 1A; Physiology 1; Biology 1; Zoology 35; Physical Education 1, 3 (2 units); 5, 29A-B-C-D, †55.

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

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

The Minor in Physical Education for Men.—Physical Education 3 (2 units), 131, 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 an 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.
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.

5. First Aid and Bandaging. (1) II.

Mr. PARK

The care of common accidents and emergencies on the playground and athletic field.

29A-B-O-D. Practice in Athletic Activities. (1-1) Yr. Mr. FRAMPTON

Required of physical education majors in their first and second years of work.

130A-B-O-D. Practice in Athletic Activities. (1-1) Yr.

Associate Professor COZENS

Required of physical education majors in their third and fourth years of work.

131. Administration of Physical Education (3) II. Mr. FRAMPTON

The scope of the field of physical education and its relation to modern education theory. Details of the organization of physical education activities, organization and classification of children, planning of school programs, arrangement and construction of equipment and the principles which govern these.

* The University of California at Los Angeles does not offer a major in physical education in the College of Letters and Science. In the College of Letters and Science at Berkeley a combination major of Physical Education and Hygiene may be 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 the 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 criticised; conditions under which they may be used.
149. Kinesiology. (3) I. M W F, 9. Mr. FRAMPTON
Prerequisite: Zoology 35.
154. The Technique of Teaching Elementary School Activities. (2) I.
Mr. FRAMPTON
The technique of teaching activities in the elementary school leading up to games of higher organization.
- 155A-155B. The Technique of Teaching Gymnastic Activities. (2-2) Yr.
Associate Professor COZENS
Prerequisite: Gymnastics, and boxing or wrestling.
Tactics, free exercises, apparatus, gymnastic dancing, and gymnastic games.
- *156A-156B. The Technique of Teaching Athletic Activities. (2-2) Yr.
Mr. SPAULDING
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, 1932-33.

PHYSIOAL EDUCATION FOR WOMEN

RUTH V. ATKINSON, M.A., Assistant Professor and Director of Physical Education for Women.

LUCILE R. GRUNEWALD, M.A., Assistant Director of Physical Education for women.

GEORGIA B. JOHNSON, Ph.D., Instructor in Physical Education for Women.

HAZEL J. CUBBERLEY, B.S., Associate Supervisor of Physical Education for Women.

MARTHA B. DEANE, B.S., Associate Supervisor of Physical Education for Women.

EDITH R. HARSHBERGER, M.A., Assistant Supervisor of Physical Education for Women.

DIANA ANDERSON, A.B., Assistant Supervisor of Physical Education for Women.

M. EFFIE SHAMBAUGH, M.A., Assistant Supervisor of Physical Education for Women.

ETHEL S. BRUCE, Associate in Physical Education for Women.

EDITH I. HYDE, A.B., Associate in Physical Education for Women.

BERNECE H. HOOPER, B.S., Associate in Physical Education for Women.

MARION A. SHEPARD, A.B., Associate in Physical Education for Women.

MARJORY F. GOULD, Ed.B., Assistant in Physical Education for Women.

EDNA LEE ROOF, A.B., Lecturer in Physical Education for Women.

LILLIAN R. TITCOMB, M.D., Physician for Women.

SARAH D. KREISS, R.N., Nurse and Assistant.

RUBY I. MOLINN, 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 medical 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 Special Secondary Credential in Physical Education.—Physical Education 120, 140 (offered in Department of Physical Education for Men), 149, 175, 180A, 180B, 181A, 181B, 182, 183, 190, 192, 199.

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. (4) Either half-year. Assistant Professor ATKINSON and STAFF

Folk dancing, character dancing, natural dancing, baseball, basketball, archery, hockey, lacrosse, soccer, volleyball, tennis, swimming, individual physical education. 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. Principles of 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 and Group Games. (1-1) Yr. Miss ANDERSON

This course includes participation in the activities, and the practical application of the technique of teaching.

62A-62B. Dramatic Games and Folk Dancing (2-2) Yr.

Miss HOOVER, Miss SHAMBAUGH

63A-63B. Music Analysis and Natural Dancing. (1-1) Yr.

Miss DEANE, Miss HOOVER

A study of music structure from the standpoint of dance, leading to music interpretation and dance creation. Elementary natural dancing.

† For full statement of the requirements of this course refer to the Circular of Information.

‡ The University of California at Los Angeles does not offer a major in physical education in the College of Letters and Science. A group major in physical education and hygiene is offered in the University at Berkeley. Students wishing to satisfy the requirements for this major are referred to the Announcement of Courses in the Departments at Berkeley.

- 72A-72B. Freshman Major Athletics. (1-1) Yr. Miss CUBBERLEY
Fundamental technic and rules.
- 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) Either half-year. Miss HOOPER
The program content for clubs and camps, both local and national, and the contribution which can be made by them to the general program of education. Open to all students.
111. Principles and Technique of Teaching Physical Education. (2) Either half-year. Miss HOOPER, Miss SHEPARD
Open to students not majoring in physical education.
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) Either half-year. Miss HARSHBERGER
Prerequisite: Psychology 1A-1B, Education 100.
- 114A-114B. Dancing and Pageantry. (1-1) Yr. Miss DEANE
120. Principles of Physical Education. (2) I. Assistant Professor ATKINSON
Open only to students majoring in physical education.
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 technique of teaching.
- 121A-121B. Technique of Teaching Athletics. (2-2) Yr. Miss CUBBERLEY
Prerequisite: satisfactory completion of lower division courses in 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.
- 121C-121D. Technique of Teaching Dancing. (2-2) Yr. Miss DEANE
Prerequisite: satisfactory completion of lower division courses in 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.
140. Tests and Measurements in Physical Education.
Required of major students in physical education. (Offered in the Department of Physical Education for Men.)

149. Kinesiology. (3) I. Miss GRUNEWALD
Prerequisite: Zoology 1b or Zoology 35.
175. Community Recreation, and Organization and Administration of Playgrounds. (2) II. Miss SHEPARD
- 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 school 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. Corrective Physical Education. (3) II. Miss GRUNEWALD
Prerequisite: Physical Education 149.
Study of body mechanics and of the causes and treatment of faulty antero-posterior and lateral deviations and foot and leg conditions with special emphasis on the individual program adaptations and corrective procedures.
183. Massage and Therapeutic Exercise. (3) I. Miss GRUNEWALD
Prerequisite: Physical Education 182.
Study of massage and therapeutic exercise applied in the treatment of disturbances of the cardio-vascular, nervous, muscular, and digestive systems.
190. Physiology of Exercise. (3) I. Dr. JOHNSON
Prerequisite: Physical Education 149 and Physiology 1.
- A-B
192. Health Examination in the School. 2-2 Yr. Dr. JOHNSON
Prerequisite: Physiology 1.
199. Problems in Physical Education. (2) Either half-year.
Prerequisite: senior standing. Dr. JOHNSON, Miss SHAMBAUGH
A survey of the field of physical education with an opportunity for intensive study of an individual problem.

PHYSICS

SAMUEL J. BARNETT, Ph.D., Professor of Physics.
 JOHN MEAD ADAMS, Ph.D., Associate Professor of Physics.
 LAURENCE E. DODD, Ph.D., Associate Professor of Physics.
 HIRAM W. EDWARDS, Ph.D., Associate Professor of Physics.
 VERN O. KNUDSEN, Ph.D., Associate Professor of Physics.
 JOSEPH W. ELLIS, Ph.D., Associate Professor of Physics.
 JOSEPH KAPLAN, Ph.D., Assistant Professor of Physics.
 E. LEE 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 equivalent. 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 \$5 per half-year. The fee for each upper division laboratory course (107A-107B, 108A-108B, 113C, 114C) is \$12 per half-year. The student will, in addition, be held responsible for all apparatus lost or broken.

LOWER DIVISION COURSES

Prerequisite for 1A, 1B, 1C, 1D: Either (1) the high school course in physics, or (2) three years of high school mathematics, including trigonometry, and the high school course in chemistry. Prerequisites for 2A-2B: (1) three years of high school mathematics, or (2) two years of high school mathematics and Mathematics 8 and C. 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 archi-

ecture. 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, KNUDSEN, ELLIS, Dr. WARNER,
and Mr. DELSASSO
Lecture, W, 11; quiz and laboratory, four hours. Fee, \$5.00
- 1B. General Physics: Mechanics of Liquids, Heat, and Sound. (3) Either half-year.
Associate Professor DODD, Assistant Professors KAPLAN, KINSEY,
Mr. DELSASSO
Lecture, M, 11; quiz and laboratory, four hours. Fee, \$5.00
- 1C. General Physics: Electricity and Magnetism. (3) I.
Associate Professor ELLIS, Dr. WARNER, Mr. DELSASSO
Prerequisite: 1A or the equivalent.
Lectures, Tu Th, 9; laboratory, three hours. Fee, \$5.00
- 1D. General Physics: Light and Sound. (3) II.
Associate Professor ELLIS, Assistant Professor KINSEY,
Dr. WARNER, Mr. DELSASSO
Lectures, Tu Th, 9; laboratory, three hours. Fee, \$5.00
- 2A-2B. General Physics. (4-4) Yr.
Associate Professor EDWARDS, Assistant Professors KAPLAN,
KINSEY
Lecture, F, 11; quiz, two hours, and laboratory, two hours. Fee, \$5.00
per half-year.
Mechanics, sound, heat, light, electricity. Prescribed for pre-medical
students.
- 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.

UPPER DIVISION COURSES

Prerequisite for all upper division courses: Physics 1A, 1B, 1C, 1D, or 2A-2B (in special cases, 4A-4B); Mathematics 3A-3B; or the equivalents.

- 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, Assistant Professor KINSEY
Prerequisite: Physics 1C. Fee, \$12.00 per half-year.
Lectures, student reports and laboratory work on direct and alternating current measuring instruments, alternating current circuits, filter circuits, and thermionics.

Maximum
in
Gen
is
12
hrs.
wks.

- 108A. Geometrical Optics. (3) II. Associate Professor DOPP
 Fee, \$12.00.
 Lectures, demonstrations and laboratory work on geometrical methods applied to the optics of mirrors, prisms, and lenses, and to their use in modern optical instruments.
- 108B. Physical Optics. (3) I. Assistant Professor KAPLAN
 Fee, \$12.00.
 Lectures, demonstrations 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. (2) II. Associate Professor ELLIS
- 113c. Spectroscopy Laboratory. (1) II. Associate Professor ELLIS
 Fee, \$12.00
 This course may be taken only concurrently with or subsequently to course 113.
- 114A. Mechanics of Wave Motion and Sound. (3) I. Associate Professor KNUDSEN
 Lectures and demonstrations on the fundamental theory of wave motion.
- 114B. Mechanics of Wave Motion and Sound. (2) II. Associate Professor KNUDSEN
 Lectures, demonstrations, and student reports on the theory of sound and its application.
- 114c. Mechanics of Wave Motion and Sound Laboratory. (1) II. Associate Professor KNUDSEN
 Fee, \$12.00
 This course may be taken only concurrently with or subsequently to course 114B.
121. Atomic Physics. (3) II. Associate Professor ADAMS
 An introductory view of the properties and constituents of atoms, as disclosed by the advances of the past thirty-five years.
 Lectures with demonstrations, and readings.
- 199A-199B. Special Problems in Physics. (2-2) Yr. Professor BARNETT and the STAFF
 Open only to properly qualified students after consultation with the instructors.

COURSE IN ANOTHER DEPARTMENT

Astronomy 117A-117B. Astrophysics.

POLITICAL SCIENCE

¹CHARLES G. HAINES, Ph.D., Professor of Political Science.
 MALBONE W. GRAHAM, Ph.D., Professor of Political Science.
 FRANK M. STEWART, Ph.D., Professor of Political Science.
 ORDEAN ROCKEY, B.Litt., Assistant Professor of Political Science.
 CHARLES H. TITUS, Ph.D., Assistant Professor of Political Science.
 *MARSHALL E. DIMOCK, Ph.D., Assistant Professor of Political Science.
 J. A. C. GRANT, Ph.D., Assistant Professor of Political Science.
 H. ARTHUR STEINER, Ph.D., Assistant Professor of Political Science.

GEORGE W. ADAMS, A.B., LL.B., Lecturer in Political Science.
 ERIC ARMOUR BEECROFT, M.A., Lecturer in Political Science.
 FRED ARTHUR SCHUCKMAN, M.A., Lecturer in Political Science.
 EZEQUIEL A. CHAVEZ, Lecturer on Latin America.
 WILLIAM H. NICHOLAS, 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 51c and either 51d or 51e, 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, or geography. Major programs must be approved by the departmental adviser.

The Minor in Teachers College.—The preparation for the major, and in addition six units of elective credit in upper division political science.

LOWER DIVISION COURSES

3A-3B. American Government. (3) Beginning either half-year.

Assistant Professors ROCKEY, TITUS, GRANT, STEINER;
 Mr. BEECROFT, Mr. SCHUCKMAN, Mr. ADAMS

(3A) A study of principles and problems in relation to the organization and functions of the American system of government.

¹ In residence first half-year only, 1982-83.

* Absent on leave, 1982-83.

(3B) A survey of the organization and functions of the national government with special attention to the features and the principles of the Federal Constitution. Some features of the organization of state and local governments will be briefly considered.

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.

51C-51D-51E. Introduction to European Governments. (2-2-2)

Professor GRAHAM, Assistant Professor STEINER, Mr. BEECHROFT

Prerequisite: sophomore standing and Political Science 3A-3B. With the consent of the instructor, 51C may be taken by freshmen who have completed Political Science 3A. Course 51C is the prerequisite to 51D and 51E. 51C replaces Political Science 51A offered prior to September, 1932; 51D and 51E replace the former 51B.

A comparative study of European governments; constitutional development; political institutions; political parties and elections; contemporary politics.

51C, British government and politics;

51D, the government and politics of France, Germany, and Switzerland;

51E, the government and politics of Russia, Italy, and Spain.

52. American Political Parties. (3) Either half-year.

Assistant Professor GRANT, Mr. BEECHROFT, Mr. ADAMS

Prerequisite: 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 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) Either half-year

Mr. SCHUCKMAN

Prerequisite: sophomore standing and Political Science 3A-3B.

Development of state constitutions. The legislative, executive, and judicial departments in state government; growth of popular methods of legislation; political reconstruction of state government.

UPPER DIVISION COURSES

Prerequisites for all courses: Political Science 3A-3B, or its equivalent, and one of the following: Political Science 51C and either 51D or 51E, Political Science 52, Political Science 74, Economics 1A-1B, Geography 1A-1B, History 4A-4B, History 5A-5B, or History 8A-8B.

105. Latin America. (1) II.

Dr. CHAVEZ

Prerequisite: consent of the instructor.

This course will be accepted on the major in the departments of economics, geography, history, political science, and Spanish.

110. Principles of Political Science. (3) Either half-year.

Assistant Professors ROCKEY, TITUS

A survey of fundamental political concepts including the legal and theoretic bases of the modern state, the various forms of government, and an analysis of the functions of government.

111. The Nature of the State. (3) II.

Assistant Professor 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.

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.

114. Political Statistics. (2) I.

Assistant Professor TITUS

The application of statistical method to certain phases of political science, including the collection, analysis, summarization, evaluation, and presentation of measurable phenomena.

125. Foreign Relations of the United States. (3) I. 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) Either half-year.

Professor GRAHAM, Assistant Professor STEINER

Factors underlying international relations; the modern state system; 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) II.

Assistant Professor STEINER

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.

154. The Government of Central Europe. (2) I.

Professor GRAHAM

155. The Governments of Eastern Europe. (3) II.

Professor GRAHAM

An intensive study of the breakdown of the German, Austro-Hungarian, and Russian Empires and the constitutional organization and development of the Succession States, with special attention to contemporary political issues, parties, elections, and foreign relations.

Equiv. of 154B, yr 1931-32

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) Either half-year.

Professor STEWART, Mr. SCHUCKMAN

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 today.

163. Municipal Administration. (3) II.

Professor STEWART, Mr. SCHUCKMAN

Prerequisite: Political Science 162.

The mayor, the city departments; the city employees; the civil service; municipal functions.

165. Legislatures and Legislation. (2) II. Assistant Professor GRANT

The functions of legislatures. The organization and procedure of typical legislative bodies. The problems and principles of law making. The legislative functions of the courts and of the administration.

172. State and Local Administration. (3) Either half-year.

Professor STEWART, Assistant Professor GRANT, Mr. BEECROFT

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 reorganizations, and cooperation with federal and municipal agencies.

181. Principles of Public Administration. (3) I. Professor STEWART

Development of public administration and its relation to other branches of government; problems of personnel and organization for different types of public service.

199A-199B. Special Problems in Political Science. (2-2) Yr.

Prerequisite: credit for six units of upper division courses in political science, and the special requirements necessary for the field selected for special study. Permission to register for this course is required.

For the year 1932-33 the work will be done primarily in the four following fields:

Section 1. Problems in Public Law.

Professor HAINES, Assistant Professor GRANT

Section 2. Problems in International Relations.

Professor GRAHAM, Assistant Professor STEINER

Section 3. Problems in Political Theory.

Assistant Professors ROCKEY, TITUS

Section 4. Problems in Municipal Government.

Professor STEWART

182 Prob. of Pub. Admin (I) II

AMERICAN INSTITUTIONS

101. American Institutions. (2) Either half-year.

Assistant Professors ROCKEY, 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 one unit. A student who has credit for course 101 will receive only two units for course 3A.

JURISPRUDENCE

18A-18B. Commercial Law. (3-3) Yr.

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) I.

Professor HAINES

The rights, duties, and liabilities of public officers; relief against administrative action; extraordinary legal remedies; jurisdiction, conclusiveness, and judicial control; legal principles and tendencies in the development of public administration.

*158. Government and Business. (3) I. Assistant Professor DIMOCK

An intensive study of the commerce and police powers, with particular emphasis upon the administrative and judicial powers of state and federal authorities.

* Not to be given, 1932-33.

PSYCHOLOGY

SHEPHERD IVORY FRANZ, Ph.D., M.D., LL.D., Professor of Psychology.

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.

ELLEN B. SULLIVAN, Ph.D., Assistant Professor of Psychology.

LAWRENCE GAHAGAN, Ph.D., Assistant Professor of Psychology.

JOSEPH A. GENGHERELLI, Ph.D., Assistant Professor of Psychology.

MASON N. CROOK, Ph.D., Instructor in Psychology.

FRANK C. DAVIS, Ph.D., Instructor in Psychology.

HOWARD C. GILHOUSEN, Ph.D., Instructor 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, and 6 units of upper division work, including 110 or 106A or 106B.

Laboratory Fees.—A fee of \$1 is required for course 110; for 106A, 106B, 107A, 107B, and 199, \$3; and course 150, \$5.

LOWER DIVISION COURSES

1A-1B. General Psychology. (3-3) Beginning either half-year.

Associate Professor GORDON, Assistant Professor FISHER and STAFF

Lectures, either Tu Th, 10 or Tu Th, 2 (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.

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.

Dr. CROOK

Prerequisite: Psychology 1A.

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. DAVIS

106A, either half-year; 106B, second half-year only. Fee, \$3.00 per half-year.

The methods and typical results in the experimental investigation of movement, fatigue, habit, memory, association, attention, perception, etc.

One hour lecture or conference, four hours laboratory, outside reading.

107A-107B. Psychological Measurement and the Use of Statistics. (3-3)

Beginning either half-year. Fee, \$3.00 per 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.

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.

Fee, \$1.00.

Assistant Professor GINGERELLI

Discussion of special topics pertaining to fundamental educational problems and their applications to educational procedures. Laboratory and clinical or teaching experiments pertaining to the problems of learning, memory, etc., in children and adults.

Two hours lecture; three hours laboratory, outside reading.

112. Child Psychology. (3) 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 and Assistant Professor GINGERELLI

Prerequisite: six upper division units in psychology.

Psychology in ancient, medieval, and modern times, with special reference to developments in the nineteenth and twentieth centuries.

Lectures, assigned readings, and conferences.

132. Contemporary Psychology. (2) Either half-year.

Assistant Professor GAHAGAN

Prerequisite: six upper division units in psychology.

A study of present day psychology in theory, backgrounds, and results.

Lectures, assigned readings, and conferences.

133. Advanced General Psychology. (2) II.

Associate Professor GORDON

Prerequisite: six upper division units in psychology.

The consideration of current theories of mind-body relations; consciousness; behaviorism; Gestalt, etc.

Lectures, assigned readings, and conferences.

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.

Dr. GILHOUSEN

Prerequisite: Biology 1 or the equivalent. Fee, \$5.00.

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 of clinical work weekly.

A study of the problems connected with the atypical child, including the discussion of mental and physical deficiencies, abnormalities, genius, and emotional instability. Special emphasis is placed on the methods by which such children may be developed to a maximum of efficiency. Practice in mental testing in the clinics, juvenile courts, and schools 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. Fee, \$3.

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 BAEJA, Doctor en Derecho, Professor of Spanish.

*S. L. MILLARD ROSENBERG, Ph.D., Professor of Spanish.

LAURENCE DEANE BAILIFF, Ph.D., Associate Professor of Spanish.

MANUEL PEDRO GONZÁLEZ, Ph.D., Assistant Professor of Spanish.

ERNEST H. TEMPLIN, Ph.D., Assistant Professor of Spanish.

ANNA KRAUSE, Ph.D., Assistant Professor of Spanish.

MARION ALBERT ZEITLIN, Ph.D., Assistant Professor of Spanish.

HERMENEGILDO CORBATÓ, Ph.D., Assistant Professor of Spanish.

SYLVIA N. RYAN, M.A., Associate in Spanish.

FRANCISCO MONTAU, A.B., Associate in Spanish.

CONSUELO PASTOR, A.B., Assistant in Spanish.

MARIA L. 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, and 50A-50B or 55, or other equivalent to be tested by examination. (2) Students who wish to make Spanish their major subject must have maintained at least an average grade of C in the college courses in Spanish taken prior to obtaining the junior certificate. (3) A minimum of two years of high school Latin, or Latin A and B, or the equivalent, is required. This requirement must be completed before entering upon the senior year. (4) Only students who pronounce Spanish correctly and read it fluently will be admitted to upper division courses. Students transferring from other institutions may be tested by oral examinations. (5) English 1A-1B.

The Major.—Required: Spanish 103A-103B, 106A-106B, and 107A-107B. The remaining units may include not more than four units of upper division work in French or Latin, or may be completed from 101, 104, 105, 108, and 110.

NOTE.—Students who have not completed course 50 or 55 in the lower division must take 101A-101B.

Students who fail to maintain at least an average grade of C in the Spanish courses taken in the upper division will, upon approval of the Dean of the College of Letters and Science, be excluded from the major in Spanish.

* Absent on leave, 1982-88.

The department recommends as a supplementary choice among the free electives: (1) history of the country or counties most intimately connected with the major; (2) additional study in Latin Literature; (3) French, German, and Greek language and literature; (4) the history of philosophy.

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.

- A. Elementary Spanish. (5) Either half-year. Miss RYAN in charge
M Tu W Th F, 8, 9, 10, 12, 3.

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.

- B. Elementary Spanish. Continuation of A. (5) Either half-year.
M Tu W Th F, 8, 9, 10, 11, 12, 2. Miss RYAN in charge
Prerequisite: course A 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, 11, 12, 3. Miss RYAN 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, 9, 11, 12, 2. Miss RYAN in charge
Prerequisite: course C or four years of high school Spanish or the equivalent.

- CD. Intermediate Spanish. Continuation of B. (5) Either half-year.
M Tu W Th F, 11. Mr. MONTAU
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) I.**

The study and presentation of a masterpiece of Spanish dramatic literature. Only those students will be eligible for registration in this course who shall have done, without credit, certain preliminary work required by the department during the preceding semester. The work of the course will end with the production and this production shall constitute the examination.

This course may be taken only twice for credit.

50A-50B. Advanced Spanish. (3-3) Yr.

M W F, 10, 11. Assistant Professor KRAUSE, 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, 10.

Miss RYAN

Prerequisite: same as for course 50A-50B.

UPPER DIVISION COURSES

Prerequisite: Sixteen units of lower division Spanish or the equivalent.

Major students who enter the upper division without courses 50A-50B or 55 must take 101A-101B.

101A-101B. Oral and Written Composition. (3-3) Yr.

Assistant Professors KRAUSE, GONZÁLEZ, Mrs. LOWTHER

101A, M W F, 8, 9, 12; 101B, M W F, 8.

103A-103B. Eighteenth and Nineteenth Century Literature. (3-3) Yr.

Associate Professor BAILIFF, Assistant Professor ZEITLIN

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. Assistant Professor TEMPLIN

Tu Th, 2.

Plays of the nineteenth and twentieth centuries. Lectures, discussions, and reports.

* Not to be given 1932-33; probably given 1933-34.

PRIMARYLY FOR SENIORS

- 106A-106B. Advanced Composition. (2-2) Yr.
 Tu Th, 10, 12. Assistant Professor CORBATÓ
 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 four additional units of upper division courses.
- *108A-108B. Spanish Literature from 1870 to 1900. (3-3) Yr.
 Assistant Professor GONZÁLEZ
 Study of masterpieces and reports on outside reading.
- 110A-110B. Modern Prose. (2-2) Yr. Professor BARJA
 Tu Th, 9.
 Rapid reading of contemporary writers.
- 140A-140B. Spanish Civilization. (2-2) Yr. Professor BARJA
 Tu Th, 11.
 Prerequisite: junior standing.
 A study of the growth and development of Spanish culture in the various fields. Lectures are in English, reading in Spanish or English.
- *190. The Teaching of Spanish. (2) Either half-year.
 Professor ROSENBERG
 Prerequisite: Spanish 101A-101B and 107A-107B, the latter being permitted concurrently.

* Not to be given 1932-33; probably given 1933-34.

SUBJECT A: ENGLISH COMPOSITION

THOMAS E. THOMPSON, A.B., Associate in Subject A.

SELENA P. INGRAM, M.A., Associate in Subject A.

MARGARET W. RINGNALDA, Assistant 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

Fee, \$10.

Three hours weekly for twelve weeks. Although this course yields no credit, it displaces two units on the student's program. Every student who does not pass the examination in Subject A is required to take, in the semester immediately following his failure, the course in Subject A. Sections are limited to thirty students. For further details, see 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.

¹ In residence first half-year only, 1982-83.

TRAINING DEPARTMENT

**STAFF IN UNIVERSITY OF CALIFORNIA AT LOS ANGELES
TRAINING DEPARTMENT**

- CHARLES WILKIN WADDELL, Ph.D., Professor of Education and Director of the Training Department.
- ETHEL I. SALISBURY, M.A., Associate Professor of Elementary Education and Supervisor of Training.
- CORINNE A. SEEDS, M.A., Assistant Professor of Elementary Education and Principal of the Training School.
- JESSE A. BOND, M.A., Supervisor of Training, Junior High School.
- FRANCES GIDDINGS, M.A., Instructor in Kindergarten-Primary Education and Supervisor of Training, Kindergarten-Primary.
- BARBARA GREENWOOD, Associate in Kindergarten-Primary Education and Supervisor of Nursery School Training.
- LULU M. STEDMAN, Ed.B., Supervisor of Special Education.
- HELEN B. KELLER, Ed.B., Supervisor of Training, Elementary.
- BERTHA E. WELLS, Ed.B., Supervisor of Training, Elementary.
- NATALIE WHITE, M.A., Supervisor of Training, Art.
- FLORENCE MARY HALLAM, A.B., Supervisor of Training, Home Economics.
- HELEN CHUTE DILL, A.B., Supervisor of Training, Music.
- LAVERNA L. LOSSING, A.B., Supervisor of Training, Music.
- ELIZABETH BRUENE, M.A., School Counselor.
- EMMA JANE ROBINSON, Training Teacher, Sixth Grade.
- HELEN F. BOUTON, M.A., Training Teacher, Fifth Grade.
- BESSIE HOYT PERSELS, M.A., Training Teacher, Fourth Grade.
- GERTRUDE C. MALONEY, Ed.B., Training Teacher, Third Grade.
- EDITH HOPE RINGER, Training Teacher, Second Grade.
- CLAYTON BURROW, B.S., Training Teacher, First Grade.
- JANE BERNHARDT, M.A., Training Teacher, Kindergarten.
- EVA SCANTLESBURY, M.A., Training Teacher, Nursery School.
- MARION WALLACE, Ed.B., Training Teacher, Nursery School.
- MARGARET DAWSON, Ed.B., Assistant Training Teacher, Kindergarten.
- THELMA PIERCE, Ed.B., Assistant Training Teacher, Nursery School and Primary Grades.

Departmental Supervisors

- HELEN M. HOWELL, Ed.B., Associate in Fine Arts and Supervisor of Training, Art.

- CLARA BARTRAM HUMPHREYS, M.A., Associate in Fine Arts and Supervisor of Training, Art.
- EVA M. ALLEN, Associate in Commercial Practice and Supervisor of Training, Commerce.
- ESTELLA B. PLOUGH, Associate in Commercial Practice and Supervisor of Training, Commerce.
- FOSS R. BROCKWAY, Associate in Mechanic Arts and Supervisor of Training, Mechanic Arts.
- EDNA LEE ROOF, A.B., Lecturer in Physical Education for Women and Supervisor of Training, Physical Education.
- DIANA ANDERSON, A.B., Assistant Supervisor of Physical Education for Women and Supervisor of Training, Physical Education.
- DONALD K. PARK, A.B., Associate in Physical Education for Men and Supervisor of Training, Physical Education.

Staff in Sawtelle Boulevard Training School

- NORA STERRY, M.A., Principal.
- GENEVIEVE ANDERSON, Training Teacher, Kindergarten.
- LOUISE BUGBEER, Training Teacher, Little B-1.
- KATHARINE MOLLOY, Training Teacher, First Grade.
- ALICE HILL ARMSTRONG, Training Teacher, First Grade.
- MILDRED U. FRAZEE, B.E., Training Teacher, First Grade.
- DOROTHY V. BAGWELL, B.S., Training Teacher, Second Grade.
- RUTH C. HILLERBY, B.S., Training Teacher, Second Grade.
- ESTELLA THOMPSON, Training Teacher, Third Grade.
- ALMA LOUISE EGERER, Training Teacher, Third Grade.
- GERTRUDE ROE MARTIN, B.S., Training Teacher, Third Grade.
- MARY C. POWELL, Training Teacher, Fourth Grade.
- GERTRUDE M. ALLISON, Training Teacher, Fourth Grade.
- ETHEL P. LEAFGREEN, Training Teacher, Fourth Grade.
- RUTH J. SWANHOLM, A.B., Training Teacher, Fifth Grade.
- SIBYL WHITWORTH, Training Teacher, Sixth Grade.
- RUTH BAUGH MYERS, Training Teacher, Sixth Grade.
- PAULINE KENDIG SLEIGH, Training Teacher, Physical Education.
- ESTHER FREYDBERG BOGUSLAV, A.B., Training Teacher, Industrial Arts.
- EUNICE COLLETTE KLECKER, Ed.B., Training Teacher, Remedial Reading.
- HELEN BARBER, Training Teacher, Development Room.
- EVA A. ROBERTS, A.B., Training Teacher, Americanization.
- EVA GERTRUDE HOPKINS, Training Teacher, Speech Correction.
- DOROTHY NOBLES, Training Teacher, Home Economics.

Staff in Observation Schools

Supervisor

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

Alexandria Avenue School

JESSIE M. FRASER, Principal.
ISABELLE S. E. AMES, A.B., First Grade.
AMANDA HOLST, Second Grade.
AMBER WILSON, Third Grade.
AGNES KOONZE, Fourth Grade.
NANNIE HEFLIN, Fifth Grade.
DORTHEA WRANGHAM, Sixth Grade.

Sawtelle Boulevard School

NORA STERRY, M.A., Principal.
GWENDOLYN DEFOREST, B.S., Kindergarten.
EDNA M. EVENSON, First Grade.
JANET WHITTEMORE, A.B., Second Grade.
LAVON WHITEHOUSE, Third Grade.
MARY LINDSEY, M.A., Fourth Grade.
EVA DANIELSON, B.S., Fifth Grade.

Staff in University High School

ANGUS L. CAVANAGH, A.B., Principal.
ZETHA MUDGETT, A.B., Training Teacher, English.
ADDIE WOODAL, A.B., Training Teacher, English.
ORA M. JOHNSON, Training Teacher, English.
GRACE REDFORD, Ph.B., Training Teacher, History.
MARGARET GARY, A.B., Training Teacher, History.
NELLIE MAY INGOLDSBY, A.B., Training Teacher, History.
VERA MILLAR, A.B., Training Teacher, History.
PETER KUHLBURGER, A.B., Training Teacher, Mathematics.
CECILIA IRVINE, M.A., Training Teacher, Social Science.
JOHN C. ARNOLD, M.A., Training Teacher, Science.
KATHERINE KENT, A.B., Training Teacher, Spanish.
LUCY JACK, Training Teacher, Art.
CATHERINE HODGES, Ed.B., Training Teacher, Art.
MARGARET EGAN, A.B., Training Teacher, Commerce.

Training Department

MARGARET KEEFE, Training Teacher, Commerce.
ROSE FOUNTAIN, B.L., Training Teacher, Commerce.
JOHN E. BANGERTER, Training Teacher, Mechanic Arts.
JAMES G. COOKE, Training Teacher, Mechanic Arts.
GEORGE A. McDERMOTT, A.B., Training Teacher, Mechanic Arts.
RUTH PAINE, A.B., Training Teacher, Music.
PHILIP MEMOLI, Mus.M., Training Teacher, Music.
BERYL JETER, Training Teacher, Music.
RUTH H. HEALY, Training Teacher, Physical Education.

Staff in Beverly Hills High School

RALPH WADSWORTH, M.A., Principal.
ANNE E. EDWARDS, A.B., Training Teacher, Latin.
DAISY NEWBY, M.L., Training Teacher, Spanish.
MILDRED DAVIDSON, Training Teacher, Commerce.
SUSAN FLETT, Training Teacher, Commerce.
FLORENCE McMAHON, Training Teacher, Commerce.
DELPHINE TUBMAN, Training Teacher, Commerce.
FRANCES BRANDRIF, A.B., Training Teacher, Home Economics.
DULCIE DONOVAN, A.B., Training Teacher, Home Economics.
GEORGE DESROCHERS, Training Teacher, Mechanic Arts.
EVELYN S. GUERNSEY, Training Teacher, Music.
WILLIAM HARTSHORN, Training Teacher, Music.
ELIZABETH L. CHAMPION, Training Teacher, Music.
TOM R. WILCOX, Ed.B., Training Teacher, Physical Education for Men.
JAMES L. PURCELL, A.B., Training Teacher, Physical Education for Men.
ALLEENE TATE, Ed.B., Training Teacher, Physical Education for Women.
CHARLOTTE MESSENGER, Training Teacher, Physical Education for Women.
MARTHA BLACKWELDER, A.B., Training Teacher, Physical Education for Women.

Staff in Other Public Schools

LUCILE SHEPARD, Training Teacher, Art.
JUNIE HAMBLETT, Training Teacher, Art.
JOSEPHINE ROBERTS, Training Teacher, Art.
MILDRED HARTZIG, Training Teacher, Art.
GRACE HAYNES, Training Teacher, Art.
MARIE SCOTT, Training Teacher, Art.
MARY CARVER, Training Teacher, Commerce.
ROLLAND R. JOHN, Training Teacher, Commerce.
LUCILE JOHNSON, Training Teacher, Commerce.

FRED J. ARMSTRONG, Training Teacher, Commerce.
MAUDE AUSTIN, Training Teacher, Commerce.
BESSIE BERGMAN, Training Teacher, Commerce.
HENRY B. GLOVER, Training Teacher, Commerce.
ATTY A. GRIFFIN, Training Teacher, Commerce.
LUCILE HADLEY, Training Teacher, Commerce.
IDA M. SCOTT, Training Teacher, Commerce.
MABEL ANN CRUZAN, B.S., Training Teacher, Home Economics.
HILDA BOUTON, M.A., Training Teacher, Home Economics.
FLORENCE PIERCE, Training Teacher, Home Economics.
HELEN LINKINS, Training Teacher, Home Economics.
A. M. HUTERS, Training Teacher, Mechanic Arts.
E. C. SAVAGE, Training Teacher, Mechanic Arts.
H. C. LANGDON, Training Teacher, Mechanic Arts.
H. H. COCHRAN, Training Teacher, Mechanic Arts.
W. S. MARTEN, Training Teacher, Mechanic Arts.
DON BROOKWAY, Training Teacher, Mechanic Arts.
GEORGE COURTNEY, Training Teacher, Mechanic Arts.
CLIFFORD KNOWLTON, Training Teacher, Mechanic Arts.
J. M. BUTLER, Training Teacher, Mechanic Arts.
LILLIAN J. SARGENT, Training Teacher, Music.
IRENE EDWARDS, Training Teacher, Music.
RICHARD K. BAILEY, Training Teacher, Music.
MAE NIGHTINGALE, Training Teacher, Music.
DORIS MOON, Training Teacher, Music.
HARLEY L. FISCUS, Training Teacher, Music.
FLOYD MISCHLER, Training Teacher, Physical Education for Men.
GEORGE CRUMPACKER, Training Teacher, Physical Education for Men.
RUTH P. DALY, Training Teacher, Physical Education for Women.
HELEN GREENING, Training Teacher, Physical Education for Women.
LAURA DELANEY, Training Teacher, Physical Education for Women.
BETSY FRICKE, Training Teacher, Physical Education for Women.
MARY THOMSON, Training Teacher, Sixth Grade.
RUBY WHEELER, Training Teacher, Fifth Grade.

SUPERVISED TEACHING†

Prerequisite:

1. Senior standing.
2. Satisfactory scholarship.†
3. Education courses as specified by the respective departments.
4. Re-examination by the University Physician before each assignment.

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 Teach. (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)
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- 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.

† A "C" average for all work done at the University of California at Los Angeles; a "C" average for all courses in Education; and a "C" average for all work in the major (when this is other than education).

‡ For dates of application without late application fee, see the University calendar.

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.

THE TRAINING SCHOOLS

Supervised teaching is provided for all Teachers College students in (1) the University Elementary School, comprising a nursery school, kindergarten, and the elementary grades; (2) Sawtelle Boulevard Elementary School of Los Angeles City; (3) Beverly Hills and University High Schools of Los Angeles City; (4) other junior and senior high schools of Los Angeles and Santa Monica, as requirements demand; (5) elementary schools in Beverly Hills.

The work is organized and administered by the Director of the Training Department and a corps of supervisors and training teachers, chosen in every case by the University authorities.

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