

University of California Bulletin

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ANNOUNCEMENT
OF THE
UNIVERSITY OF CALIFORNIA
SOUTHERN BRANCH
FOR THE
ACADEMIC YEAR, 1924-25

JULY, 1924

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UNIVERSITY OF CALIFORNIA
SOUTHERN BRANCH
LOS ANGELES

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Administrative Bulletins of the University of California

1924-25

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For copies of this Announcement address the *Recorder, University of California, Southern Branch, Los Angeles*. Price, 20 cents; postpaid, 25 cents.

For the Catalogue of Officers and Students, Southern Branch, address *Recorder of the Southern Branch, Los Angeles*. Price, 15 cents; postpaid, 20 cents.

For the Announcement of the University of California Summer Session in Los Angeles apply to the Summer Session Office, 815 Junior Orpheum Building, Los Angeles.

For the following circulars of information concerning the several colleges and departments of the University apply to the *University of California Press, Berkeley, California*.

The Circular of Information, Academic Departments (Colleges of Letters and Science, Agriculture, Commerce, and Engineering, and the first two years of Medicine). Containing general information about the University, its organization, government, requirements for admission to undergraduate status, requirements for degrees, and expenses. Price, 15 cents; sent by mail by the *University of California Press* for 20 cents. Detailed information is given in the other publications mentioned in this list.

The Annual Announcement of Courses of Instruction in the Academic Departments. Price, 25 cents; sent by mail by the *University of California Press* for 30 cents.

The Announcement of the Graduate Division.

The Annual Commencement Programme. Containing the list of degrees conferred, scholarships, prizes and other honors.

Specimen entrance examination papers.

The Annual Announcement of the School of Education.

The Annual Announcement of the School of Jurisprudence.

The Announcements of the Summer Sessions. Published annually in January.

The Catalogue of Officers and Students (for Berkeley). Published in September and February. Price, 25 cents; sent by mail by the *University of California Press* for 30 cents.

The Monthly Meteorological Synopsis of Berkeley.

(Continued on third page of cover)

UNIVERSITY OF CALIFORNIA

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UNIVERSITY OF CALIFORNIA
SOUTHERN BRANCH
LOS ANGELES

1924

Letters of inquiry concerning the Southern Branch should be addressed to the *Recorder, University of California, Southern Branch, 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.

HOW TO REACH THE SOUTHERN BRANCH

The Southern Branch is reached by three yellow-car lines, one red-car line, and an auto bus line.

1. Heliotrope Drive Line ("H" yellow car). Leave car at Melrose avenue and Heliotrope drive.
2. Santa Monica Boulevard Line (red car). Leave car at either Vermont avenue or Berendo street.
3. Crown Hill Line ("C" yellow car). Leave car at Normal avenue.
4. Vermont Avenue Line ("V" yellow car). Leave car at Monroe street.
5. Vermont and Sunset Bus Line. Leave car at the University.

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CALENDAR, 1924-25

FALL SEMESTER, 1924

1924

Aug. 7 to 12	Matriculation examinations given in Berkeley only. (See under College Entrance Board examinations for June and September offerings in Los Angeles.)
Sept. 1, Monday	Applications for admission, with complete credentials, should be filed with Recorder on or before this date. Late filing fee, \$2.00. To give time for necessary correspondence and the securing of credentials, first inquiries should be made much earlier.
Sept. 10, Wednesday	Examination in Subject A, 8:30 A.M. General intelligence test, 2:00 P.M.
Sept. 11, Thursday	Registration of new students, 8:30 A.M. to 4:00 P.M.
Sept. 12, Friday	Registration of old students and re-intrants.
Sept. 15, Monday	Instruction begins, 8:00 A.M.
Sept. 29, Monday	Admission after this date only for extraordinary reasons.
Oct. 25, Saturday	Last day of first mid-term period.
Nov. 27, Thursday	} Thanksgiving recess.
Nov. 29, Saturday	
Dec. 6, Saturday	Last day of second mid-term period.
Dec. 22, Monday	} Christmas recess.
1925	
Jan. 1, Thursday	
Jan. 31, Saturday	Fall semester closes.

SPRING SEMESTER, 1925

Jan. 5 to 9	Matriculation examinations given in Berkeley only.
Jan. 29, Thursday	Applications for admission in February to be filed on or before this date. Late filing fee, \$2.00.
Feb. 6, Friday	Examination in Subject A, 8:30 A.M. General intelligence test, 2:00 P.M.
Feb. 7, Saturday	Registration of new students, 8:30 A.M. to 12:00 M.
Feb. 7, Saturday	Registration of old students and re-intrants. Initial letters A to H, 8:30 A.M. to 4:00 P.M.
Feb. 9, Monday	Registration of old students and re-intrants. Initial letters I to Z, 8:30 A.M. to 4:00 P.M.
Feb. 10, Tuesday	Instruction begins 8:00 A.M.
Feb. 23, Monday	Admission after this date only for extraordinary reasons.
Mar. 21, Saturday	Last day of first mid-term period.
Mar. 23, Monday	Charter Day.
May 2, Saturday	Last day of second mid-term period.
May 23, Saturday	Alumni Day.
June 12, Friday	The Sixth Southern Branch Commencement.
Third week in June	College Entrance Board examinations given in Los Angeles and other cities.
June 15, Monday	} Summer Course in Surveying in the vicinity of Los Angeles.
July 11, Saturday	
June 27, Saturday	} Summer Session in Los Angeles.
Aug. 8, Saturday	
Sept. 14, Monday	Instruction for 1925-26 begins.

REGENTS OF THE UNIVERSITY

NOTE.—The regular meetings of the Regents are held at 2 p.m. on the second Tuesday of each month, except July, and on the day before Commencement, at such places as may from time to time be determined, ordinarily in the Governor's Office, State Building, San Francisco. The Los Angeles office of the Regents is in the Theatre Building, 816 Hill street, Los Angeles.

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2820 Regent st, Berkeley

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Long Beach

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Care, Kern County Land Co., Bakersfield

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President of the Mechanics' Institute
418 Phelan bldg, San Francisco

CHARLES W. MERRILL
President of the Alumni Association
121 Second St., San Francisco

WILLIAM WALLACE CAMPBELL, SoD., LL.D.
President of the University, 217 Cali-
fornia Hall, Berkeley

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The term of the appointed Regents is sixteen years, and terms expire March 1 of the year indicated in parenthesis. The names are arranged in the order of original accession to the Board.

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Hamilton City

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Francisco

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501 West Sixth st, Los Angeles

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725 West Twenty-eighth st, Los Angeles

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220 California Hall, Berkeley

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1005 Crocker Bldg., San Francisco

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FOR THE YEAR 1924-25*

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Engineering:

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This committee consists of the chairmen
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*Southern Branch of the University of
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* 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.

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 217 California Hall

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 217 California Hall

Assistant Dean of the University:
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 217 California Hall

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 220 California Hall

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 204 California Hall

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 103 Millsbaugh Hall

Assistant to the Comptroller and Assistant to the Secretary of the Regents:
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 106 Millsbaugh Hall

Dean of the Summer Session in Los Angeles:
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 815 Hillstreet Building

**Medical Department:*
 Dean: George H. Kress
 245 Bradbury Building

Extension Division—
Representative in Southern California:
 H. S. Noble
 817 Hillstreet Building

* Graduate instruction only is offered in the Medical Department.

I. HISTORY

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-).

In 1896 a movement which had been undertaken for a permanent and comprehensive building plan on the Berkeley campus was taken over and financed by Mrs. Phoebe Apperson Hearst. The ultimate plan was selected after two international competitions. A large group of buildings has already been erected on the site, partly from private donations and partly from state appropriations and bond issues.

THE SOUTHERN BRANCH

In March, 1881, the Los Angeles State Normal School was established by legislative act. A five-acre site at the corner of Fifth street and Grand avenue was obtained, and the cornerstone of the first building was laid December 17 of that year. The school opened in August, 1882, with a faculty of three members and an enrollment of sixty-one students. Under the presidency of Jesse F. Millspaugh (1904-17) the school developed. His connection with the school is commemorated in the name of the main building. He was succeeded in the presidency by Dr. Ernest Carroll Moore.

The original site and buildings having become inadequate, in 1907 the Legislature authorized the sale of the property and in 1911 made an appropriation for the purchase of a more suitable location. In the following year the present site, a campus of twenty-four acres (later increased to twenty-five), was purchased, and on November 18, 1913, the cornerstone of the principal building, Millspaugh Hall, was laid. In September, 1914, the school occupied the new group of buildings.

By an act of the Legislature which became effective July 24, 1919, the school became the Southern Branch of the University of California. The Regents of the University assumed control of the grounds, buildings and equipment, and Dr. Moore was appointed Director.

This act provided for continuance of the teacher-training courses then being given and for the institution of freshman and sophomore work of the University. On February 13, 1923, the Regents authorized the extension of instruction to include third-year students, and on December 3, 1923, a College of Letters and Science was created at the Southern Branch. Provision was made for instruction to fourth-year students beginning September, 1924.

The campus of the Southern Branch is bounded by Vermont avenue, Monroe street, Heliotrope drive, and Willowbrook avenue. The ten buildings which form the group are in a style of architecture reminiscent of the Lombardy style found in northern Italy. The Southern California Chapter of the American Institute of Architects awarded the group its first annual medal in August, 1921.

II. ORGANIZATION AND ADMINISTRATION

The University of California is an integral part of the public educational system of the State. Through aid from the State and the United States, and by private gifts, it furnishes instruction in literature and in science, and in the professions of engineering, art, law, 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.

The government of the University is entrusted to a corporation styled **THE REGENTS OF THE UNIVERSITY OF CALIFORNIA**, consisting of the Governor, the Lieutenant-Governor, the Speaker of the Assembly, the State Superintendent of Public Instruction, the President of the State Board of Agriculture, the President of the Mechanics' Institute of San Francisco, the President of the Alumni Association, and the President of the University, as members *ex officio*, and sixteen other regents appointed by the Governor and approved by the State Senate. The internal management of the University is in the hands of the President and the Academic Senate, which is composed of the faculties of the University.

The Southern Branch is administered by the Director, who is the administrative head, appointed by the Regents on the recommendation of the President of the University. The staff of instruction of the Southern Branch is organized into a Council, which is a council of the Academic Senate of the University.

III. DEPARTMENTS OF THE UNIVERSITY**I. IN BERKELEY**

The Colleges of

Letters and Science,

Commerce,

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

Mechanics,

Mining,

Civil Engineering,

Chemistry.

The Schools of

Architecture,

Education,

Jurisprudence,

Medicine (first and second years).

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 Summer Sessions.

The California Museum of Vertebrate Zoology.

The Museum of Paleontology.

II. AT MOUNT HAMILTON

The Lick Astronomical Department (Lick Observatory).

III. AT SANTIAGO, CHILE

Lick Observatory, Chile Station, a branch of the Lick Observatory.

IV. IN SAN FRANCISCO

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

V. IN LOS ANGELES

The Southern Branch of the University.
The College of Letters and Science,
The Lower Division in Agriculture, Chemistry, Civil Engineering,
Commerce, Mechanics, and Mining.
The Teachers College.
The Summer Course in Surveying.
Los Angeles Medical Department (graduate instruction only).
The Summer Session in Los Angeles.
The University Extension Division.

VI. AT DAVIS

The Branch of the College of Agriculture.

VII. AT RIVERSIDE

The Citrus Experiment Station and Graduate School of Tropical Agriculture.
The Summer Session in Sub-Tropical Agriculture.

VIII. AT LA JOLLA

The Scripps Institution for Biological Research.

IX. AT FAIRFAX

The Summer Course in Surveying.

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 GUY G. PALMER, Colonel, U. S. Army, Retired, Professor of Military Science and Tactics.
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 GLENN PAXTON, B.S., Associate in Biology.
 EDUARDO PAYÁ, Associate in Spanish.
 LU EMILY PEARSON, M.A., Associate in English.
 RUTH G. PERSONS, B.S., Assistant in Zoology.
 JOHN B. PHILLIPS, Associate in Mechanic Arts.

* Absent on leave October 15, 1924 to May 15, 1925.

- ESTELLA B. PLOUGH, Associate in Commercial Practice.
JAMES B. RAMSEY, Ph.D., Instructor in Chemistry.
EDWIN MOORE RANKIN, Ph.D., Lecturer in Greek.
FRANK H. REINSCH, Ph.D., Instructor in German.
CHARLES H. RIEBER, Ph.D., Dean of the College of Letters and Science and Professor of Philosophy.
G. BOSS ROBERTSON, Ph.D., Assistant Professor of Organic Chemistry.
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ORDEAN ROCKEY, A.B., Instructor in Political Science.
S. L. MILLARD ROSENBERG, Ph.D., Associate Professor of Spanish.
ETHEL I. SALISBURY, M.A., Associate Professor of Elementary Education.
EFFIE SHAMBAUGH, A.B., Associate in Physical Education for Women.
LAURA SHARP, Associate in Physical Education for Women.
MARION SHEPARD, A.B., Associate in Physical Education for Women.
GEORGE E. F. SHERWOOD, Ph.D., Professor of Mathematics.
† HARRY M. SHOWMAN, E.M., M.A., Assistant Professor of Mathematics.
BIRDIE KIRK SMITH, Associate in Fine Arts.
WILLIAM A. SMITH, Ph.D., Assistant Professor of Education.
LOUISE P. SOOY, Assistant Professor of Fine Arts.
O. L. SPONSLER, Ph.D., Assistant Professor of Botany.
A. N. STARK, JR., Captain U. S. A., Assistant Professor of Military Science and Tactics.
HOSMER W. STONE, Ph.D., Assistant Professor of Inorganic Chemistry.
ELLEN B. SULLIVAN, Ph.D., Instructor in Psychology.
FLORENCE E. SUTTON, Associate in Physical Education for Women.
INA THACH, Associate in Physical Education for Women.
EVALYN A. THOMAS, B.L.I., Instructor in English.
HELEN B. THOMPSON, Ph.D., Professor of Home Economics.
LILLIAN RAY TITCOMB, M.D., Physician for Women.
CAROLINE I. TOWNSEND, M.A., Associate in English.
HARRY TROTTER, Assistant in Physical Education for Men.
LOUIS C. VALENTINE, A.B., Associate in English.
BERTHA C. VAUGHN, Teacher in Voice.
W. H. VEATCH, A.B., Ph.M., Instructor in Public Speaking.
FREDERICK P. VICKERY, M.A., Assistant Professor of Geology.
L. A. VILLEGAS, Doctor en Derecho, Associate in Spanish.
CHARLES WILKIN WADDELL, Ph.D., Director of the Training Schools and Professor of Education.
ARTHUR H. WARNER, A.B., B.S., Associate in Physics.
NATALIE WHITE, B.S., Associate in Industrial Arts.
BELLE H. WHITICE, Associate in Industrial Arts.

† Absent on leave, second half-year, 1924-25.

ALFRED R. WHITMAN, Ph.D., Assistant Professor of Geology.
 J. HAROLD WILLIAMS, Ph.D., Lecturer in Education.
 FLORENCE A. WILSON, A.B., B.S., Associate in Home Economics.
 FREDERICK P. WOELLNER, Ph.D., Lecturer in Education.
 EUPHEMIA R. WORTHINGTON, Ph.D., Instructor in Mathematics.
 †FRANCES A. WRIGHT, Associate Professor of Public School Music.

STAFF OF TRAINING INSTRUCTION

UNIVERSITY TRAINING SCHOOL

RUBY T. BLYTHE, B.N., School Nurse.
 HELEN F. BOUTON, Ed.B., Training Teacher, Fifth Grade.
 ETHEL BRITTO, A.B., Training Teacher, Kindergarten.
 NIÑO BROWN, B.L., Training Teacher, Social Sciences.
 ELIZABETH BRUENE, M.A., School Counselor.
 MADELINE CROWELL, B.S., Training Teacher, Home Economics.
 VIVIAN EVANS, B.S., Training Teacher, First Grade.
 BARBARA GREENWOOD, Training Teacher, Kindergarten.
 FRANCES GIDDINGS, A.B., Assistant Supervisor of Training.
 BESSIE WINSTON HOYT, Ph.B. in Ed., Training Teacher, Fourth Grade.
 ALICE HUBARD, A.B., Training Teacher, Spanish and French.
 MABEL C. JACKSON, M.A., Training Teacher, English.
 HELEN B. KELLER, Training Teacher, Mathematics.
 BLANCHE KELLS, Training Teacher, Physical Education.
 CHARLES A. LAMB, Teacher of Printing.
 EDITH HOPE RINGER, Training Teacher, Third Grade.
 EMMA J. ROBINSON, Training Teacher, Sixth Grade.
 ETHEL I. SALISBURY, M.A., Assistant Supervisor of Training and Associate Professor of Elementary Education.
 KATHERINE SPIERS, M.A., Assistant Supervisor of Training.
 LULU M. STEDMAN, Ed.B.; Training Teacher, Opportunity Rooms.
 EDITH WALLOP SWARTS, Training Teacher, Second Grade.
 THOMAS E. THOMPSON, A.B., Assistant Supervisor of Training and Vice-Principal of Junior High School.
 CHARLES WILKIN WADDELL, Ph.D., Professor of Education and Director of the Training Schools.
 BERTHA E. WELLS, Assistant Supervisor of Training.

† Absent on leave, first half-year.

STAFF IN CITY TRAINING SCHOOLS

- RUTH M. BAUGH, Training Teacher, Sixth Grade, Dayton Heights.
BETH H. BENNING, Training Teacher, Sixth Grade, Lockwood.
MARGARET ROSE CARNES, Training Teacher, First Grade, Dayton Heights.
M. W. CHANDLER, Assistant Supervisor of Training and Principal, LeConte Junior High School.
MYRTLE B. CHANDLER, A.B., Assistant Supervisor of Training and Principal, Dayton Heights.
SERENA P. CHRISTENSEN, Training Teacher, Eighth Grade, Lockwood.
ANNA B. CONNORS, Training Teacher, First Grade, Lockwood.
ELLEN TOY CONNORS, Training Teacher, Third Grade, Dayton Heights.
GERTRUDE C. ENFIELD, Training Teacher, Seventh Grade, Lockwood.
JEANETTE FERMAN, Training Teacher, Fourth Grade, Dayton Heights.
HAZEL GLOVER, Training Teacher, Second Grade, Dayton Heights.
ALICE M. GREER, Training Teacher, Fourth Grade, Dayton Heights.
BESS HOLDZKOM, Training Teacher, First Grade, Lockwood.
MARY FRANCES HOLLINS, Training Teacher, Home Economics, LeConte Junior High School.
SYBIL HOUDYSHEL, Training Teacher, Fifth Grade, Dayton Heights.
MARIE HOYE, Ph.B., in Ed., Training Teacher, Second Grade, Lockwood.
INGA MARTINSON LACY, Training Teacher, Second Grade, Lockwood.
HELEN LINKENS, Training Teacher, Home Economics, Lockwood and Dayton Heights.
LAVERNA LOSSING, Training Teacher, Fifth Grade, Lockwood.
GERTRUDE MALONEY, Training Teacher, Fourth Grade, Lockwood.
LURA SAWYER OAK, Training Teacher, Third Grade, Lockwood.
EDNA LEE ROOF, B.L., Training Teacher, Physical Education, Dayton Heights.
ESTELLE ROYER, Training Teacher, Kindergarten, Dayton Heights.
AUGUSTA N. SADLER, Assistant Supervisor of Training and Principal, Lockwood.
SUSIE K. SANDERSON, Training Teacher, Non-English, First Grade, Bridge Street.
KATHERINE SPIERS, M.A., Assistant Supervisor of Training.
NELLIE J. SUTTER, Training Teacher, Home Economics, LeConte Junior High School.
GRACE M. TINGLEY, Training Teacher, Third Grade, Dayton Heights.
CHARLES WILKIN WADDELL, Ph.D., Professor of Education and Director of the Training Schools.
BERTHA E. WELLS, Assistant Supervisor of Training.
ELIZABETH WHITCOMB, Training Teacher, Kindergarten, Lockwood.
S. EDNA WILLIAMS, Training Teacher, First Grade, Dayton Heights.

LIBRARY STAFF

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ELIZABETH FARGO, Head of the Accessions Department.

FANNIE A. COLDREN, Reference Librarian.

***ELIZABETH STURTEVANT, Head of the Circulation Department.**

ELIZABETH BRYAN, Senior Assistant, Acting Head of Circulation Department.

FRANCES CLARKE, Librarian of the Training School.

LOUINA VAN NORMAN, Senior Assistant.

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ELIZABETH BOYNTON, Junior Assistant.

SARAH L. PATTERSON, Junior Assistant.

FANNIE E. JENISON, Junior Assistant.

ELIZABETH VAUGHN, Junior Assistant.

BESSIE E. NELSON, Junior Assistant.

DEBORA KING, Junior Assistant.

* Absent on leave, 1924-25.

V. ADMISSION TO THE UNIVERSITY

ADMISSION FROM ACCREDITED SCHOOLS IN CALIFORNIA

A graduate of a California high school may enter the University of California without examination provided the following requirements be satisfied:

1. The school must have been accredited by the University of California.
2. The applicant must have completed a four-year high school course, aggregating at least 15 standard units* of preparatory work, and he must be duly certified as a graduate of the school.
3. The candidate must (normally) have attended the school from which he is graduated at least one school-year† immediately preceding graduation.
4. The candidate must be specially recommended for admission to the University of California.

In recommending graduates for admission to the University the principals of accredited schools should use Recommendation Form A, with application for admission attached. Copies of this form are supplied by the University to the principals of all accredited schools in California.

The accrediting of secondary schools is regulated by an order of the Regents of the University passed March 4, 1884, and amended September 10, 1895, and January 10, 1905. 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. Blank forms of application for accrediting and lists of accredited schools may be obtained from the Recorder of the Faculties at Berkeley.

* A standard secondary unit is the measure of a subject pursued throughout the school year of from thirty-six to forty weeks and constituting approximately one-quarter of a full year's work.

† If, however, the candidate has completed all of his high school work in accredited institutions, and if the principals of these several schools unite in recommending him, the usual requirement that the candidate must have spent his senior year in the school from which he is graduated may be set aside.

Caution.—Candidates recommended in accordance with the foregoing provisions are admitted to the University and enrolled in the curricula of their choice. It will be seen, however, that some of these curricula cannot be completed in the University in the normal period (four years for the degrees A.B., B.S., or Ed.B.) unless the candidate during his high school course has completed such specific prerequisites as may underlie the University work. A list of the curricula with a statement of the preparatory work required and recommended, is given hereunder.

ADMISSION FROM CALIFORNIA SCHOOLS NOT ACCREDITED

A graduate of a California secondary school not accredited by the University who has been in attendance at said school for at least one school year previous to graduation, who is strongly recommended by the principal of his school will be admitted upon passing the following examinations:

English (2 units); United States history (1 unit); laboratory science (1 unit); and two of the following groups:

(a) Advanced English and history (in addition to United States history), any 2 units.

(b) Mathematics (intermediate algebra and trigonometry) $1\frac{1}{2}$ units.

(c) Foreign languages, 3 units in one, or 2 units in each of two.

(d) Additional advanced science, 2 units.

ADMISSION FROM APPROVED HIGH SCHOOLS IN OTHER STATES

Applicants from secondary schools outside of California are required to meet the same standards as applicants who enter from secondary schools in California. The committee in charge of admissions must have evidence of the following facts: that the school has an approved standing at universities or colleges of acknowledged rank; that the applicant has been graduated from a four-year course of not less than fifteen standard secondary units; that the high school programme shall have included the subjects prescribed by the California State Board of Education (see Preparatory Work Required and Recommended); and that the applicant has maintained an average scholarship standing well above the mark required by the school for promotion or graduation. The candidate may be certified by his principal upon the Principal's Recommendation, Form B. Copies of this form will be sent by the Recorder either to high school principals or to candidates for admission.

ADMISSION BY EXAMINATION

Candidates who are unable to present satisfactory school certificates may be admitted to the University by passing examinations in the preparatory subjects constituting a standard high school course. The subjects to be presented must be arranged in advance with the University. The subjects to be required by the University will depend upon the applicant's high school training, his age, and his proposed course of study in the University. The applicant must pass examinations in at least fifteen standard high school units.

Examinations at the University of California

Matriculation examinations are held in August and in January of each year;* but the examinations in January are primarily for the purpose of enabling students in the University to remove matriculation deficiencies. Applicants for admission who present certificates from their teachers that they are prepared in the subjects they offer will be admitted to the January examinations. Such certificates must be filed with the Recorder of the Faculties before the examinations.

No person save a registered student of the University will be allowed to take any matriculation examination without having first filed an application for admission.

A circular concerning the matriculation examinations may be obtained by addressing the Recorder of the Faculties at Berkeley or the Recorder of the Southern Branch.

List of Preparatory Subjects

A list of preparatory subjects, with the amount of matriculation credit assigned to each, is given below. The credit for each subject is stated in units, the standard secondary unit being the measure of a subject pursued throughout the school year of from thirty-six to forty weeks and constituting approximately one-quarter of a full year's work. This list is not exhaustive, but it represents most of the fields of instruction in the secondary schools of California. With the exceptions noted below, the University holds entrance examinations in these subjects:

* These are held at Berkeley only.

No.		Units of Credit	No.		Units of Credit
1a	English, elem.....	2	*†15c ¹	French, elem., 1 yr. of 5c ²	1
1b	English, adv. I.....	1	†5c ²	French, elem.....	2
1c	English, adv. II.....	1	†5c ²	French, intermed.....	1
2a	Algebra, elem.....	1	†5c ²	French, adv.....	1
2b ¹	Algebraic Theory I.....	1/2	*†5d ¹	German, elem., 1 yr. of 5d ² ..	1
2b ²	Algebraic Theory, II.....	1/2	†5d ²	German, elem.....	2
2c	Plane Geometry.....	1	†5d ²	German, intermed.....	1
2d	Solid Geometry.....	1/2	†5d ²	German, adv.....	1
†2e	Plane Trigonometry.....	1/2	*†5e ¹	Spanish, elem., 1 yr. of 5e ²	1
†2f	Plane Analytic Geometry ..	1/2	†5e ²	Spanish, elem.....	2
3a	Physics.....	1	†5e ²	Spanish, intermed.....	1
3b	Chemistry.....	1	†5e ²	Spanish, adv.....	1
3c	Physiology and Hygiene.....	1	†6a	Freehand Drawing.....	1
3d	Botany.....	1	6b	Geometrical Drawing.....	1
3e	Zoology.....	1	7	Mechanic Arts.....	1/2-3
*3f	Biology.....	1	*8	Agriculture.....	1/2-3
*3g	Physical Geography.....	1	*9abc	Home Economics.....	1/2-3
*3h	Elem. Physical Science.....	1	10a	Music, Sight Singing and Dictation.....	1
4a	History and Gov. of the U.S.	1			
4b	History, Ancient.....	1	10b	Music, Elements of Com- position.....	1
4c	History, Med. and Mod.....	1			
4d	History, English.....	1	10c	Music, Instrumental and Vocal Technique.....	1
†5a ¹	Greek, elem.....	1	10d	Music, History of Modern European Music.....	1
†5a ²	Attic Prose.....	2			
†5a ³	Attic Prose, adv.....	1/2	11	Bookkeeping.....	1
†5a ⁴	Homer.....	1/2	*12	Stenography and Type- writing.....	1-2
*†5b ¹	Latin, elem., 1st yr.....	1	*†13	Military Science and Tactics	1/2
5b ²	Latin, elem., 2d yr.....	2			
†5b ³	Latin, adv., 3d yr.....	1			
†5b ⁴	Latin, adv., 4th yr.....	1			

College Entrance Examination Board

Certificates of successful examinations before the College Entrance Examination Board will be accepted in lieu of matriculation examinations conducted by the University of California.

The examinations of the College Entrance Examination Board are usually held during the third week in June.†

All applications for examination must be addressed to the College Entrance Examination Board, 431 West 117 street, New York, N. Y., and must be made upon a blank form to be obtained from the Secretary of the Board upon request.

If the application is received sufficiently early, the examination fee will be \$9 for candidates examined in the United States or Canada and \$20 for candidates examined outside of the United States or Canada. The fee, which must accompany the application, should be remitted by postal order, express order, or draft on New York to the order of the College Entrance Examination Board.

* No examination.

† The dagger indicates subjects for which equivalent courses are offered in the University. For further description of these courses reference should be made to the Announcement of Courses of Instruction.

‡ Credit in this subject does not imply exemption from any part of the prescribed work in military science and tactics in the University.

§ Arrangements are being made for an additional series of College Entrance Board examinations to be offered in September. For these examinations, make all applications through Recorder of the Southern Branch. Fee, \$9.00.

The applications and fees of candidates who wish to be examined outside of the United States or Canada must reach the Secretary of the Board at least six weeks in advance of the first day of the examinations. The applications and fees of candidates who wish to be examined in the United States at points west of the Mississippi River or in Canada must be received at least four weeks in advance of the examinations. The applications and fees of candidates who wish to be examined in the United States at points east of the Mississippi River or on the Mississippi River must be received at least three weeks in advance of the first day of the examinations.

When the candidate has failed to obtain the required blank form of application for examination, the usual examination fee will be accepted if the fee arrive 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 may have occasion to take the board examinations.

Applications received later than the dates named will be accepted when it is possible to arrange for the admission of the candidates concerned, but only upon payment of \$9 in addition to the usual fee.

A list of the places at which examinations are to be held by the Board in June, 1925, will be published about March 1. Requests that the examinations be held at particular points, to receive proper consideration, should be transmitted to the Secretary of the Board not later than February 1.

Points on the Pacific Coast at which examinations are usually held are as follows: Los Angeles, Berkeley, Carpinteria, La Jolla, Ojai, Stanford University, Portland, Seattle, Spokane, Tacoma.

ADMISSION ON TEACHERS' CREDENTIALS

Holders of Teachers' Life Diplomas or of State Educational Diplomas of this state, or holders of similar diplomas recognized by the State Board of Education of California, may be admitted provisionally to the University in the academic departments, with the privilege of satisfying matriculation requirements by examination or by work in the University.

PREPARATORY WORK REQUIRED AND RECOMMENDED
THE HIGH SCHOOL PROGRAMME

Aside from the specific prerequisites for certain curricula, as set forth below, no prescription of high school work is made by the University. The requirement for high school graduation in California, established by the State Board of Education,* permits a wide range in the choice of subjects in order to provide for the needs of different classes of students. It is therefore important that high school students preparing to enter college keep in mind this purpose and make a choice of major and elective subjects that will form an adequate foundation for their university work.

Importance of Academic Subjects.—The high school student who is preparing to enter the University is urged to devote the greater part of his time during the high school course to what are commonly spoken of as "academic" subjects, such as English, foreign language, mathematics, history, and science. Herein (pages 29-38) will be found statements of the subjects required and recommended by way of a preparation for the various curricula and major subjects of the University. It is only by a careful reading of these statements that the high school programme of an intending student of the University can be wisely arranged. Special attention is invited to the following subjects of the high school curriculum.

English Composition: Oral and Written Expression.—Training in this subject enters into the proper treatment of all topics of study in the curriculum, and extends to speaking and oral reading as well as to correct, clear, and pertinent writing.

All undergraduate students are, immediately following their admission, required to take a written examination in Subject A: English Composition. Students who fail to make a satisfactory showing in this test are required to take a special course in English composition without university credit. Tuition fee, \$10. See under General Regulations in later pages of this circular.

Mathematics.—Provision should be made in the high school programme for two years of work in mathematics, namely, elementary algebra and plane geometry. Instruction in these subjects is not provided by the University excepting during the summer sessions and in the Division of

* A resolution of the California State Board of Education directs that all public high school curricula in California require, for graduation, the following: English, 2 units (after July 1, 1924, 3 units); United States history and civics, 1 unit; laboratory science, 1 unit; and all such curricula must be so organized as to include two majors of at least 8 units each—a major consisting of three years of study in one of the following groups (1) English (in vocational courses 1 unit of citizenship may be included with 2 units of English to make one major); (2) mathematics, including mechanical drawing; (3) history and social science; (4) physical and biological sciences; (5) foreign language—3 or more units in one language, or 2 units in each of two languages.

University Extension; Extension courses are not open to resident students in the University during regular sessions. In no curriculum of the University is junior standing obtainable without credit for both these subjects.

Foreign Language.—In practically all colleges and departments of the University a knowledge of a foreign language is helpful; in many departments such knowledge is indispensable. Elementary work in foreign languages can as a rule be more profitably undertaken by pupils of high school age than by older persons. The study of the language or languages (ancient or modern) selected should begin early in the high school course and should continue for at least two years. For information concerning the foreign languages required and recommended by the several departments of the University, the reader is referred to pages 30, 59, 91, herein. The importance of the study of Latin is particularly called to the attention of high school students. The University provides instruction in the elements of the modern foreign languages, but none in elementary Latin.

Physics, Chemistry.—For detailed information concerning the sciences required and recommended by the several colleges and departments of the University, the reader is referred to pages 30, 59, herein. Attention is called to the basic importance of physics and chemistry. Instruction in these subjects is not provided by the University except during the summer sessions.

PREPARATION FOR THE VARIOUS CURRICULA

The requirements and recommendations for the various curricula are stated below.

A "curriculum" is understood to be either a technical or specialized programme of studies, as in the colleges of Engineering, Agriculture, and Commerce; or a more general programme (as in the College of Letters and Science) with a designated major subject, such as history, mathematics, or philosophy.

The asterisk (*) preceding the name of a curriculum signifies that only a portion of the curriculum may be completed in Los Angeles. The dagger (†) indicates that no work in that curriculum may be taken in Los Angeles.

With reference to major subjects in the College of Letters and Science, the subjoined statement of "requirements and recommendations" is addressed rather to the student who desires to be well prepared to complete a full undergraduate major, possibly as a candidate for honors, than to the student who wishes merely to satisfy a minimum graduation requirement. In some subjects it will be possible for students to satisfy minimum graduation requirements in the major without complying in all respects with the prerequisite herein listed.

In the subjoined statement the terms "required" and "recommended" are to be interpreted as follows:

Required: Subjects without which the student will not be able to enter the regular curriculum. The omission of required subjects at matriculation will usually result in delaying graduation. The University gives no instruction in elementary Latin; no resident instruction in elementary algebra or plane geometry except during summer sessions. The equivalent of the high school courses in physics and chemistry is given in the summer session, not during the fall or spring sessions.

Recommended: Subjects which will usually give more effective preparation, and thus allow greater freedom of election at the University. The omission of these subjects at matriculation will usually not delay graduation if the student's work at the University is properly planned.

NOTE.—The numerals in parentheses represent units of high school work. A standard secondary unit is the measure of a subject pursued throughout the school year of from thirty-six to forty weeks and constituting approximately one-quarter of a full year's work.

***Agriculture:** leading to the degree of Bachelor of Science in the COLLEGE OF AGRICULTURE.

Required: plane geometry (1); elementary algebra (1); geometrical drawing (1); chemistry (1).‡

Recommended: advanced mathematics, including trigonometry (2); physics (1); advanced English (2); a reading knowledge of a modern foreign language.

***Anatomy:** leading to the degree of Bachelor of Arts.

Required: elementary algebra (1); plane geometry (1); chemistry (1).

Recommended: physics (1); French (2) or German (2).

***Anthropology:** leading to the degree of Bachelor of Arts.

Recommended: foreign language, zoology, and geography.

†**Architecture:** leading to the degree of Bachelor of Arts in the COLLEGE OF LETTERS AND SCIENCE at the end of four years, to the degree of Master of Arts in the GRADUATE DIVISION at the end end of not less than five years, and to the degree of Graduate in Architecture in the SCHOOL OF ARCHITECTURE at the end of not less than six years.

‡ If it becomes necessary to limit the number of students receiving instruction in chemistry in the University, preference will be given to those who enter with credit in any two of the following high school subjects: chemistry, 1 unit; physics, 1 unit; plane trigonometry, $\frac{1}{2}$ unit.

Required: plane geometry (1); elementary algebra (1); algebraic theory ($\frac{1}{2}$); trigonometry ($\frac{1}{2}$); physics (1); chemistry (1); freehand drawing (1); foreign language (2).

Recommended: advanced algebraic theory, including quadratics ($\frac{1}{2}$); solid geometry ($\frac{1}{2}$); geometrical drawing (1); Latin (2); French (2).

Art: *(A) leading to the degree of Bachelor of Arts.

Required: plane geometry (1); elementary algebra (1).

Recommended: freehand drawing (1).

(B) leading to the degree of Bachelor of Education in the TEACHERS COLLEGE. See under Teachers College.

***Astronomy:** leading to the degree of Bachelor of Arts.

Required: elementary algebra (1); plane geometry (1); chemistry (1); physics (1).

Recommended: advanced mathematics (2); French (2) or German (2).

***Bacteriology and Experimental Pathology:** leading to the degree of Bachelor of Arts.

Required: elementary algebra (1); plane geometry (1); chemistry (1); physics (1).

Recommended: advanced mathematics (2); German (2) or French (2).

***Biochemistry and Pharmacology:** leading to the degree of Bachelor of Arts.

Required: elementary algebra (1); plane geometry (1); chemistry (1); physics (1).

Recommended: advanced mathematics (2); German (2) or French (2).

***Botany:** leading to the degree of Bachelor of Arts.

Required: elementary algebra (1); plane geometry (1).

Recommended: advanced mathematics (2); physics (1); chemistry (1); French (2) or German (2).

Chemistry: *(A) leading to the degree of Bachelor of Science in the COLLEGE OF CHEMISTRY.

Required: same as for ENGINEERING, with French or German.

(B) leading to the degree of Bachelor of Arts in the COLLEGE OF LETTERS AND SCIENCE.

Required: elementary algebra (1); plane geometry (1); any two of the three subjects—chemistry (1), physics (1), trigonometry ($\frac{1}{2}$).

Recommended: advanced mathematics (2); French (2) or German (2); geometrical drawing (1).

Commerce: *(A) leading to the degree of Bachelor of Science in the COLLEGE OF COMMERCE.

Required: algebra (1); plane geometry (1).‡

Recommended: additional mathematics (including trigonometry); natural sciences; modern foreign language; additional English.

(B) leading to the degree of Bachelor of Education in the TEACHERS COLLEGE. See under Teachers College.

***Dentistry:** leading to the degree of Doctor of Dental Surgery in the COLLEGE OF DENTISTRY at the end of four or six years; or to the degree of Bachelor of Science upon receipt of the Junior Certificate in the COLLEGE OF LETTERS AND SCIENCE, pre-dental curriculum, and the completion of the first three years of the four-year curriculum in the COLLEGE OF DENTISTRY; and, upon completion of the four-year curriculum in the COLLEGE OF DENTISTRY, the degree Doctor of Dental Surgery will be conferred.

Recommended: physics (1); chemistry (1); zoology (1); manual training; foreign language (1).

Economics: leading to the degree of Bachelor of Arts.

Recommended: foreign language.

***Education:** leading to the degree of Bachelor of Arts.

Recommended: foreign language.

(See under Teachers College for curricula leading to degree of Bachelor of Education.)

***Engineering:** leading to the degree of Bachelor of Science in one of the colleges of engineering. These colleges are: COLLEGE OF MECHANICS—curricula in mechanical and electrical engineering, marine engineering and naval architecture; COLLEGE OF MINING—curricula in mining engineering, petroleum engineering, metallurgy, and economic geology; COLLEGE OF CIVIL ENGINEERING—curricula in railroad, sanitary, municipal, and irrigation engineering.

Required: plane geometry (1); elementary algebra (1); algebraic theory ($\frac{1}{2}$); trigonometry ($\frac{1}{2}$); physics (1); chemistry (1); geometrical drawing (1). The omission of any part of the required work herein listed will almost invariably make it necessary for the student to devote more than four years to the completion of the work for B.S.

Recommended: advanced algebraic theory, including quadratics ($\frac{1}{2}$); solid geometry ($\frac{1}{2}$); freehand drawing (1); foreign language (2).

‡ Beginning August, 1925, algebraic theory will be required.

English: leading to the degree of Bachelor of Arts.

Recommended: Latin (4); Greek (3).

***Forest Utilization:** leading to the degree of Bachelor of Science in the COLLEGE OF AGRICULTURE.

Required: same as for ENGINEERING.

Recommended: same as for ENGINEERING.

***Geography:** leading to the degree of Bachelor of Arts.

Required: elementary algebra (1); plane geometry (1); chemistry (1).

Recommended: advanced mathematics (2); German (2) or French (2); physics (1).

***Geological Sciences** (geology, mineralogy, paleontology): leading to the degree of Bachelor of Arts.

Required: elementary algebra (1); plane geometry (1); chemistry (1); physics (1).

Recommended: advanced mathematics (2); German (2) or French (2)

History: leading to the degree of Bachelor of Arts.

Recommended: foreign language; at least one year of European history in addition to the history of the United States.

Home Economics: leading to the degree of Bachelor of Education in the TEACHERS COLLEGE. See under Teachers College.

***Household Art:** leading to the degree of Bachelor of Arts.

Required: chemistry (1).

Recommended: freehand drawing (1); botany (1); domestic science (2); mechanical drawing (1); foreign language, preferably French or German (2-4).

***Household Science:** leading to the degree of Bachelor of Arts.

Required: chemistry (1); elementary algebra (1); plane geometry (1).

Recommended: physics (1); French or German (2); domestic science (foods) (1).

***Hygiene and Physical Education:** leading to the degree of Bachelor of Arts. See also Physical Education.

Required: elementary algebra (1); plane geometry (1); chemistry. (1).

Recommended: French or German; physics; mathematics.

Languages—Classics, Latin, Greek: leading to the degree of Bachelor of Arts.

Required: Latin (2).

Recommended: Latin (4); Greek (3); French (2) or German (2); ancient history (1). To delay advanced Latin until the university is reached will make it exceedingly difficult, though not impossible, to do any considerable amount of advanced work in Latin.

Other Languages—French, German, *Italian, *Oriental, *Sanskrit, *Semitic, *Slavic, Spanish: leading to the degree of Bachelor of Arts.

Recommended: Latin (4) or Greek (3); French (2) or German (2), or Spanish (2).

***Law:** (A) leading to the degree of Bachelor of Arts in the COLLEGE OF LETTERS AND SCIENCE at the end of four years, and to the degree of J. D. in the School of Jurisprudence‡ at the end of six years.

Recommended: physics (1) or chemistry (1); Latin (2); United States history (1) and English history (1).

(B) leading to the degree LL.B. in HASTINGS COLLEGE OF THE LAW (San Francisco) at the end of five years (two years in the COLLEGE OF LETTERS AND SCIENCE at Berkeley or Los Angeles followed by three years in HASTINGS COLLEGE OF THE LAW).

For further information see the annual announcements of the HASTINGS COLLEGE OF THE LAW and of the SCHOOL OF JURISPRUDENCE.

Letters and Science, College of: leading to the degree of Bachelor of Arts.

Required: plane geometry (1); elementary algebra (1). *In addition,* such high school work as is prerequisite to the student's proposed major subject in the college. For statements of the prerequisites to the various major subjects in this college, the reader is referred to pages 93-169 herein.

‡ Important changes in the requirements for admission and degrees in the School of Jurisprudence are under consideration. Reference should be made to the Announcement of the School of Jurisprudence for 1924-25, to be obtained on or about July 15, 1924, from the Manager of the University of California Press, Berkeley, California.

Recommended: foreign language; physics (1); chemistry (1). *In addition*, such high school work as is recommended by way of preparation for the student's proposed major subject. The study of physics, chemistry, and foreign language in the high school has a double advantage. It releases the student from a part of the requirement in natural science and foreign language which otherwise would be prescribed for him during the freshman and sophomore years in the University, and thus enlarges his opportunity for elective study; and it affords a preparation for many courses of instruction in the University which otherwise will be closed to him. A study of the language or languages (ancient or modern) selected should begin early in the high school course and should continue for at least two years, preferably longer. The importance of the study of Latin is particularly called to the attention of high school students. The University provides instruction in the elements of the modern foreign languages, but none in elementary Latin.

***Library Practice:** leading to the degree of Bachelor of Arts.

Required: reading knowledge of French and German.

Mathematics: leading to the degree of Bachelor of Arts.

Required: plane geometry (1); elementary algebra (1).

Recommended: advanced algebraic theory, including quadratics (1); solid geometry ($\frac{1}{2}$); trigonometry ($\frac{1}{2}$).

Mechanic Arts: leading to the degree of Bachelor of Education in the TEACHERS COLLEGE. See under Teachers College.

***Medicine:** leading to the degree of Bachelor of Arts in the COLLEGE OF LETTERS AND SCIENCE in four years and to the degree of Doctor of Medicine in the MEDICAL SCHOOL in four additional years. The fourth or senior year in the COLLEGE OF LETTERS AND SCIENCE consists of the first year in the five-year curriculum in the MEDICAL SCHOOL.

Required: English (3); elementary algebra (1); plane geometry (1); physics (1); chemistry (1); history (1); foreign language (2).

Recommended: advanced mathematics; freehand drawing (1); French (2) or German (2).

A full statement of the prerequisites for the course in medicine will be found in the announcement of the MEDICAL SCHOOL.

¹ Students who plan to take library practice courses in 1924-25 or later should consult the Associate Librarian at Berkeley before making choice of a major subject. It will no longer be possible to make library practice a major, but combination majors are planned for those who wish to become librarians.

***Military Science and Tactics:** leading to the degree of Bachelor of Arts.

Required: elementary algebra (1); plane geometry (1); and at least two high school units from the following: algebraic theory ($\frac{1}{2}$); trigonometry ($\frac{1}{2}$); physics (1); chemistry (1); foreign language (1).

Recommended: at least 2 units of language, preferably French, German, or Spanish; physics (1); chemistry (1); algebraic theory (1); trigonometry ($\frac{1}{2}$); solid geometry ($\frac{1}{2}$); military science and tactics ($\frac{1}{2}$); physical education.

Music: *(A) leading to the degree of Bachelor of Arts.

Recommended: harmony (1); history of music (1); vocal or instrumental technique or choral practice (1).

(B) Leading to the degree of Bachelor of Education in the TEACHERS COLLEGE. See under Teachers College.

***Nursing:** (a) leading to a Certificate in Public Health Nursing at the end of a course of one year in the Department of Hygiene, COLLEGE OF LETTERS AND SCIENCE at Berkeley.

Required: certification as registered nurse.

Recommended: chemistry (1); foreign language.

(b) leading to a certificate of graduation at the end of a three-year course in the University of California Training School for Nurses in San Francisco.

Required: graduation from an approved high school course of four years.†

Recommended: foreign language, chemistry.

(c) leading to the degree of Bachelor of Science at the end of a five-year course, including two years in the University of California Training School for Nurses in San Francisco and three years in the departments at Berkeley.

Required: elementary algebra (1); plane geometry (1); chemistry (1);§ and either physics or trigonometry.

Recommended: foreign language (2).

† In and after August, 1924, the requirements for admission to the three-year course will be the same as to the academic departments of the University. Until August, 1924, preference will be given to those applicants who are able to meet this requirement.

§ If it becomes necessary to limit the number of students receiving instruction in chemistry in the University, preference will be given to those who enter with credit in any two of the following high school subjects: chemistry, 1 unit; physics, 1 unit; plane trigonometry, $\frac{1}{2}$ unit.

***Optometry:** leading to the degree of Bachelor of Arts at the end of a four-year curriculum in the COLLEGE OF LETTERS AND SCIENCE with a major in physics and optometry.

Required: plane geometry (1); elementary algebra (1); chemistry (1); physics (1); trigonometry ($\frac{1}{2}$); mechanical drawing (1); French (2) or German (2).

Recommended: additional mathematics; additional foreign language.

†Pharmacy: (A) leading to the degree of Ph.G. (Graduate in Pharmacy) at the end of a course of two years in the CALIFORNIA COLLEGE OF PHARMACY in San Francisco.

Required: graduation from an approved high school course of four years or its equivalent.

(B) leading to the degree of Ph.C. (Pharmaceutical Chemist) at the end of a course of three years in the CALIFORNIA COLLEGE OF PHARMACY in San Francisco.

Required: graduation from an approved high school course of four years or an equivalent preparation.

(C) leading to the degree of Phar.B. (Bachelor of Pharmacy) at the end of a course of four years in the CALIFORNIA COLLEGE OF PHARMACY.

Required: graduation from an approved high school course of four years or an equivalent preparation.

Philosophy: leading to the degree of Bachelor of Arts.

Recommended: Latin; mathematics; physics or chemistry.

Physical Education: leading to the degree of Bachelor of Education in the TEACHERS COLLEGE.

***Physical Education and Hygiene:** leading to the degree of Bachelor of Arts.

Required: chemistry (1); elementary algebra (1); plane geometry (1).

Recommended: French or German; physics; mathematics.

Physics: leading to the degree of Bachelor of Arts.

Required: elementary algebra (1); plane geometry (1); physics (1) or advanced mathematics including trigonometry (1); chemistry (1).

***Physiology:** leading to the degree of Bachelor of Arts.

Required: elementary algebra (1); plane geometry (1); chemistry (1); physics (1).

Recommended: advanced mathematics (1); German (1) or French (2).

Political Science: leading to the degree of Bachelor of Arts.

Recommended: foreign language.

Psychology: leading to the degree of Bachelor of Arts.

Recommended: foreign language; mathematics; physics or chemistry.

***Public Health:** (A) leading to the degree of Bachelor of Arts in the COLLEGE OF LETTERS AND SCIENCE at the end of four years and to the degree of Graduate in Public Health (Gr.P.H.) in the GRADUATE DIVISION at the end of six years.

Required: elementary algebra (1); plane geometry (1); physics (1); chemistry (1).

Recommended: advanced mathematics (2); German (2) or French (2); freehand drawing (1).

(B) leading to the degree of Bachelor of Science in the COLLEGE OF CIVIL ENGINEERING (curriculum in sanitary engineering) at the end of four years and to the degree of Graduate in Public Health (Gr.P.H.) in the GRADUATE DIVISION at the end of six years.

Required: same as for ENGINEERING; see above.

Recommended: same as for ENGINEERING; see above.

(C) leading to the degree of Bachelor of Arts in the COLLEGE OF LETTERS AND SCIENCE, Graduate in Public Health in the GRADUATE DIVISION, and Doctor of Medicine in the MEDICAL SCHOOL in a combined course of eight years.

Required: elementary algebra (1); plane geometry (1); physics (1); chemistry (1).

Recommended: advanced mathematics (2); German (2) or French (2); freehand drawing (1).

***Public Speaking:** leading to the degree of Bachelor of Arts.

Recommended: same as for ENGLISH; see above.

***Social Service:** leading to the degree of Bachelor of Arts.

Required: plane geometry (1); elementary algebra (1); chemistry (1); foreign language (2).

Recommended: history (1); additional foreign language.

Teachers College: leading to the degree of Bachelor of Education.

Required: elementary algebra (1); plane geometry (1); foreign language (2).

Recommended: English (2); physical or biological science, including laboratory work (2); history (2); music (1); art (1). Note: For students matriculating in the Kindergarten-Primary curriculum, the ability to play simple melodies on the piano.

Zoology: leading to the degree of Bachelor of Arts.

Required: elementary algebra (1); plane geometry (1); chemistry (1).

Recommended: advanced mathematics (2) German (2) or French (2); physics (1).

The asterisk (*) preceding the name of a curriculum signifies that only a portion of the curriculum may be completed in Los Angeles. The dagger (†) indicates that no work in that curriculum may be taken in Los Angeles.

**ADMISSION WITH ADVANCED STANDING
FROM OTHER COLLEGES AND UNIVERSITIES**

Advanced standing in the Teachers College or the Collège of Letters and Science of the Southern Branch may be granted to applicants from other colleges and universities upon the approval of their credentials by the proper committee. A form for such credentials will be furnished on application to the Recorder of the Southern Branch, Los Angeles. It may be filled out by the applicant himself, but should be duly certified by the proper officer of the institution in which the work was done. There should also be submitted some credential showing in detail the basis upon which the applicant was matriculated in the institution from which he comes and the preparatory subjects for which matriculation credit was given. These documents should be filed with the Recorder of the Southern Branch in order that they may be placed before the Committee on Advanced Standing for an estimate of their value in terms of the requirements of the University of California. The committee, acting on behalf of the faculty, is empowered to reject the certificates, in whole or in part, and to require examination in any or all of the subjects offered.

FROM SCHOOLS AND COLLEGES IN FOREIGN COUNTRIES

Graduates of approved schools and colleges in foreign countries may be admitted only if their command of English is sufficient to permit them to profit by university instruction. This ability will be tested by an oral and written examination set by the Committee on Admissions.

**ADMISSION FROM NORMAL SCHOOLS OR STATE TEACHERS
COLLEGES**

A student in a state teachers college or normal school, who plans to enter the University of California, should arrange his programme with special reference to the degree requirements of the college in which he expects to take his bachelor's degree.

In the College of Letters and Science and in the College of Commerce, the junior certificate requirements consist largely of courses specifically prescribed in the fields of foreign languages, laboratory science, etc., and allow only a limited amount of time for free electives. The premedical curriculum and the curricula of the colleges of engineering and agriculture include a number of prescribed courses in subjects which ordinarily are not represented in a state teachers college.

The University regulations, however, provide that a student admitted to the University from a normal school or a state teachers college who is also a graduate (with university recommendation) of an accredited high school, may be allowed junior standing for two years' work and senior standing for three years' work, whenever it appears that the work which has been done is substantially the equivalent of the work required by the University of California in the college or curriculum selected.

The foregoing allowance of credit is dependent upon the presentation by the applicant of satisfactory recommendations both from the high school and from the normal school or state teachers college.

Graduates of California state normal schools or of other normal schools of equal rank who become candidates for the certificate of completion of the teacher-training curriculum of the School of Education at Berkeley may be exempted from the additional half-year of residence required beyond the bachelor's degree.

Credentials from high schools and normal schools of states other than California are evaluated in accordance with this general plan. The applicant must in every such case submit the detailed record of his high school and later studies in order that the Committee on Admissions may be satisfied that the applicant has met the California requirements both as to selection of his studies and as to scholarship standing. Blank forms for statement of the applicant's studies may be obtained from the Recorder of the Southern Branch on request.

CREDIT FOR TEACHING EXPERIENCE (TEACHERS COLLEGE)

1. No consideration will be given for teaching experience at the time the candidate with advanced standing registers.

2. After the candidate has engaged in practice teaching long enough to satisfy the Supervisor of Practice Teaching of his ability, he may apply for advanced standing on the basis of his teaching experience. Upon such application and the recommendation of the Supervisor of Practice Teaching, either

(a) The candidate may receive five units' credit in lieu of the second practice teaching assignment, or

(b) The candidate may substitute for the second teaching assignment such other courses as the adviser may sanction.

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, though not as candidates for degrees.

No person less than twenty-one years of age will be admitted to the status of special student, but it is specifically emphasized that mere attainment of any given age does not constitute adequate qualification for admission to this status.

Applicants will not be admitted directly from the secondary schools to the status of special student.

The graduates of accredited high schools are not admitted as special students, but are expected to qualify for regular undergraduate standing in accordance with the usual rules. Regularly admitted students may, with the approval of the Dean, pursue strictly elective or limited programmes, if they do not desire to become candidates for degrees.

The Southern Branch has no "special courses." All courses are organized for regular students—that is, students who have had the equivalent of a good high school education and have been fully matriculated. Special students are admitted to those regular courses for which, in the judgment of the instructors, they have satisfactory preparation.

Applications for admission to special status should be filed with the Recorder well in advance of the date announced as the last one for the filing of credentials by candidates for regular status. In practically every case, the Recorder will arrange for a personal interview between the candidate and the proper Dean or other officer, who will inspect the candidate's credentials, and determine any examinations that may be required in subjects prerequisite to the courses the candidate wishes to enter. Blanks for application and for transcripts of high school records may be obtained from the Recorder.

Applicants for special status will be required to take the examination in Subject A: English Composition, and the general intelligence test, and to undergo a physical examination. Dates for these will be announced at the opening of each semester.

All special students (men) shall report immediately to the officer in charge of military training for enrollment in the course, or for exemption on the proper grounds.

Upon petition special students, not candidates for any University degree or University teaching credential, may be excused from the exercises in physical education and hygiene; such students, however, in case they become candidates for degrees or teaching credentials, must meet these requirements in full.

Instruction is not offered in such essential preparatory subjects as elementary algebra, plane geometry, United States history, elementary Latin and Caesar, and, save in the Summer Session, elementary chemistry and elementary physics. Before applying for admission, the applicant should see that he is prepared in any of these which may be prerequisite to work he may wish to do in the University.

VI. GENERAL INFORMATION

REGULATIONS CONCERNING STUDENTS

REGISTRATION

Each student registers in the Southern Branch on days appointed for this purpose, at the beginning of each half-year.

Registration covers the following steps: (1) Filling out application, paying fees, and receiving in exchange a card entitling applicant to status as a student; (2) enrolling in the proper courses in the approved manner.

Applicants must also appear before the University medical examiners, and pass a medical examination, to the end that the health of the University community may be safeguarded. Evidence, satisfactory to the examiners, of successful immunization against smallpox, is required.

STATUS OF STUDENTS

Regular students are those undergraduates who have complied with the requirements for matriculation, and who pursue, or are entitled to pursue, the established curriculum of a college.

Students at large are undergraduates pursuing purely elective courses. Students at large are subject to all regulations imposed on regular students, except the requirements for a degree, unless otherwise provided.

Special student.—A "special student" is one who, although he does not meet university matriculation requirements, is nevertheless allowed to register, 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 work, or tested by formal examination covering his familiarity with the field prerequisite to the elected work.

Students at large and special students, by virtue of their status, are not candidates for any degree.

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 not more than one University exercise consecutively, must be made to the officer of instruction in charge of such exercise; unless for unavoidable cause the student is obliged to absent himself from all college exercises for one day or several days, in which case the dean has authority to excuse. 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 students who desire to withdraw from courses in which they are regularly enrolled, and who have the approval of adviser or dean to make changes in programmes. Application for such change should be made to the office of the Recorder through Petition for Change in Study-List. Attendance upon all exercises is obligatory pending receipt of formal permission to discontinue.

For regulations concerning withdrawal from University exercises see page 51 of this announcement.

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. This rule takes precedence of any announced prerequisites.

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

Any instructor, with the approval of the Director, 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.

SUBJECT A: ENGLISH COMPOSITION

The Subject A examination is designed to test the student's ability in English composition and written expression, especially with regard to organization and freedom from technical errors.

All intrants to the Southern Branch must, at the time of their first registration, present themselves for examination in Subject A: English Composition.

(1) All students must take Subject A examination. (2) No student who has not passed Subject A will be admitted to any University course

in oral or written composition. (3) Students who pass Subject A are not required, but are advised, to continue their training in oral and written composition. (4) Students who fail to make a satisfactory showing in this test are required to take a special course in English composition without university credit. A tuition fee of \$10 is charged for this course. (5) Intrants who fail to present themselves for the examination at the time appointed must pay a fee of \$2 when they enter the examination for the first time. (6) For students who enter with advanced standing Subject A is a requirement for junior standing. (7) Failure in the examination does not prevent admission to the Southern Branch. (8) The examination will be given at the Southern Branch, at the opening of the fall and spring sessions.

The examination will be composed, set, and judged under the direction of the Committee on Subject A, and the requirements and penalties will be enforced by the deans and other proper authorities of the colleges.

MILITARY SCIENCE, PHYSICAL EDUCATION, AND HYGIENE

All undergraduate students shall, upon admission to the Southern Branch, report immediately to the proper officers for enrollment in physical education and hygiene, following the Registration Circular or the announcements which may be posted on the bulletin boards. All able-bodied male students, who are under twenty-four years of age at the time of admission, and who are citizens of the United States shall report immediately for enrollment in military science. A deposit (\$20.00) must be paid at once to the Comptroller of the University to cover the cost of the uniform and textbook to be used in military courses. A fee of \$5 is charged all men registered in Physical Education for the use of the standard gymnasium suit. Students shall list these courses upon their study cards with other University courses.

Petitions from students for excuse from, or deferment of, military science, physical education, or hygiene, 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. Students who petition to be excused from all of these subjects or from any of them should nevertheless present themselves to the proper instructors for enrollment during the pendency of petitions.

Students more than twenty-four years of age at the time of admission are, upon petition, excused from military science, physical education and hygiene.

A circular containing information concerning the requirements in military science, physical education, and hygiene, including a statement

of the grounds upon which students may be excused from this work, may be obtained from the Recorder.

In case a student subject to these requirements shall enroll in the prescribed course or courses and thereafter (without authority) shall fail to appear for this work, his study card shall be immediately withdrawn; and he can be reinstated only by petition to the proper authority. When a student's study card is withdrawn he is thereby suspended from participation in all University exercises.

Vaccination at the time of entering, or proof of successful recent vaccination, is required of all students.

The student is referred to the announcements of the departments of Military Science and Tactics and Physical Education, contained on pages 143 and 151 (men), 154 (women), respectively.

UNITS OF CREDIT

A "unit of University credit," corresponding to the "semester hour," is one hour of a 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. Credit for 124 or more units distributed according to the requirements of the college in which the student is enrolled is necessary for a degree.

STUDY-LIST LIMITS

(a) *Letters and Science.*—Students in the College of Letters and Science may present study lists aggregating from 12 to 16 units per half-year without special permission as to quantity of work. During the first half-year in residence at the University no student will be permitted to take more than 16 units of work.* After one half-year of regular residence (i.e., with a study list of at least 12 units), permission may be granted, on petition to the Committee on Scholarship, or the Dean of the college, to take not over 18 units per half-year, provided the student has attained an average of at least two grade points per unit for the preceding half-year. Prescribed courses in military science, physical education, and hygiene, and repeated courses are to be counted in making study-list totals.

In general, students will be allowed (unless limited to 16 units because of deficiencies in the work of the previous half-year†) to enroll in 16½

* Attendance in the summer session does not give standing as an "old student."

† A student who receives a grade of E, F, or Inc. in any course during a given semester is considered deficient and is, therefore, "limited" in the programme which he may take during the following semester. Deficiencies in Military Science and Physical Education have the same effect as deficiencies in other subjects.

units without special permission. Their cards will be stamped by the Recorder, "Degree credit, 16 units."

Students may be allowed, on petition to the Committee on Scholarship, to enroll in courses aggregating slightly more than this figure, when it is difficult to make the desirable courses total the exact limit. Their cards will be stamped by the Recorder, "Degree credit, 16 units."

The inclusion of English A in a student's study-list, although it does not carry units of University credit, will nevertheless reduce his allowable maximum by two units.

Students may present a study-list of less than 12 units, only with written approval of the Dean of the college.

(b) Students enrolled in the lower division carrying work preparatory to admission to the junior year of the College of Agriculture, the College of Commerce, the College of Civil Engineering, the College of Mechanics, the College of Chemistry, or the College of Mining, and who are free from deficiencies may register for not more than 19 units of new work. Students with deficiencies will be limited to 16 units, including repeated work. Freshmen and Sophomores who are taking the prescribed courses in physical education, hygiene, or military science may, with the express approval of the adviser, add these courses to the maxima as stated herein. Should they later transfer to a non-professional curriculum in Letters and Science, their credits will be scaled down in accordance with the limits of that college.

(c) *Teachers College.*—Students in the Teachers College may present study-lists aggregating from 12 to 17 units* each half-year without special permission as to quantity of work. During the first half-year in residence at the University no student will be permitted to take more than 17 units of work.† After one half-year of regular residence (i.e., with a study-list of at least 12 units), permission may be granted on petition to the Committee on Scholarship or the Dean of the college to take not over 18 units each half-year, provided the student has attained an average of at least two grade points per unit for the preceding half-year. Prescribed courses in military science, physical education and hygiene are to be counted in making study-list totals.

In general, students will be allowed (unless limited to 16 units because of deficiencies‡) to enroll in 17½ units without special permission. Their cards will be stamped by the Recorder, "Degree credit, 17 units."

* If student has deficiencies he will be limited to a study-list of 12 to 16 units.

† Students who are in residence for one half-year only, and who are required by the State Board of Education to complete special requirements, should make full written statement to the Dean of the College.

‡ A student who receives a grade of E, F, or Inc. in any course during a given half-year is considered deficient and is, therefore, "limited" in the programme which he may take during the following half-year. Deficiencies in military science and physical education have the same effect as deficiencies in other subjects.

The inclusion of English A in a student's study-list, although it does not carry units of University credit, will nevertheless reduce his allowable maximum by two units.

Courses Taken Outside the Southern Branch.—If a student is carrying on studies elsewhere, the total of his work must come within the limits above defined. The responsibility for meeting this requirement lies directly with the student, who should give full information to his adviser and the Recorder. If credit toward a certificate or a college degree is expected, the student should notify the Recorder at the beginning of any such outside course.

EXAMINATIONS

Examinations.—At the end of each semester regulations require that there shall be an examination covering the term's work for each class. The final grade for the class is based in part upon the daily work and in part upon this examination.

Re-examinations and Special Examinations.—Students who have been conditioned (grade E) in university courses, have the privilege of once taking the regular half-year examinations in the courses in question. There is no fee for a re-examination taken with the regular class. Instructors are under no obligation to hold any other ("special") examinations.

A fee of \$5.00 is charged for every special examination. Any supplementary or deferred test required by an instructor of a student for the purpose of making up a condition is regarded as a special examination. Students taking two or more such examinations in courses taken during any one half-year will be charged not to exceed ten (10) dollars for all such examinations, instead of being charged at the rate of \$5.00 for each examination.

Students should apply to the Recorder for permits to take re-examinations or special examinations.

Any student who is reported as having failed in a course, or who, after being conditioned, does not pass the re-examination for the removal of the condition, will be required to repeat the course with the class that next takes it; unless, on recommendation of the officer of instruction in charge, the faculty shall permit him to review a subject in which he is thus deficient with the assistance of an acceptable private tutor; in which case he will be excused from attending the recitations, but will be required to take the regular examinations at the end of the year or half-year.

GRADES OF SCHOLARSHIP AND GRADE POINTS

The final result of the work of a student receiving instruction in the Southern Branch of the University of California shall be reported, in reference to each course, in six grades, four of which shall be passing grades, as follows: A, excellent; B, good; C, fair; D, barely passed; E, conditioned; F, failure.

Grade points or quality units shall be assigned by the Recorder as follows: A, 3 points per unit; B, 2 points per unit; C, 1 point per unit; D, no points per unit; E, minus one point per unit; F, minus one point per unit. Grade D is a passing grade and gives the student credit in the course but no grade points. Beginning in the semester ending February, 1924, negative grade points will be assigned at the rate of one negative grade point per unit, for courses reported conditioned or failed. Grade points so deducted will be restored to the student's credit only upon satisfactory completion of the work.

For graduation the final number of grade points must equal the number of units in all courses for which the student has registered in the University in and after August, 1921. It is also required that candidates for any teaching credential shall attain at least ten (10) of the necessary grade points in practice teaching courses.

Removal of grade E by re-examination or repetition of the course shall entitle the student to as many grade points as have been lost by the condition, but no more. Exceptions to this rule are allowed, however, in the case the deficiency consists merely in the omission of the final examination, or in the failure to complete certain portions of the required work, performance in all other respects being satisfactory, and the failure to complete all the requirements of the course being due to circumstances, such as illness, over which the student has no control.

In order to have grade A, B, or C assigned in courses originally reported E, the procedure shall require that the burden of proof shall be upon the student, who at *or before* the time the instructor reports the altered grade, shall present a petition, certifying to the circumstances that have made it impossible for him to complete the course at the proper time. Such petitions shall require the endorsement of the instructor concerned and the dean of the college.

For the removal of a condition, every student shall have the privilege of once taking an examination in the same course, either at the time when an examination in said course shall be regularly given, or, in exceptional cases, with the consent of the instructor giving the examination and the authorization of the Committee on Scholarship, and upon payment of such

fee as may be prescribed by proper authority, at any other time. (For regulations concerning special and re-examinations, see page 47 of this Announcement.)

If any student shall fail to remove a condition in a course by the end of the next regular semester of his residence in which an examination in said course may be regularly given, after he shall have received such condition, then such condition may be removed only by repeating the course.

No student shall receive credit in any course in which he may have received grade F, except upon successful repetition of that course. Successful repetition of the course shall entitle the student to as many grade points as have been lost by the failure, but no more.

Any undergraduate student who is reported as having failed in any prescribed course in Military Science, Hygiene, Physical Education, or Psychology X, or in the course in Subject A, shall be required to repeat such course during his next regular semester of residence in which such course may be given.

No course in which a final report relating to any student shall have been received by the Recorder shall be removed from the record of such student.

Scholarship grades once certified to the Recorder as final are not automatically subject to revision by the instructor. If in any case the instructor desires to recommend a change in the record, the procedure will be as follows: (1) Instructor's formal recommendation for the change, with explanation in detail of the circumstances. (2) Approval, on behalf of the department of instruction in which the course is given, by the chairman of the department. Such recommendations should be addressed to the Recorder, who is instructed to refer doubtful cases for decision to the Director.

DISQUALIFICATION

Every undergraduate student is required each half-year either (1) to pass in all courses registered for the half-year, or (2) to pass in at least ten (10) units of duly registered work. Any student who fails to satisfy this requirement will be dropped from the rolls (disqualified). Independently of these requirements, any student who neglects any part of the work for which he is registered (regardless of the number of units passed) may be disqualified by faculty action.

Beginning May, 1924, the following regulations shall be effective:

1. Any student whose record in June of any academic year shows a deficiency of fifteen (15) or more grade points shall be warned by the Recorder, before the opening of the next academic year in September, that his standing in the University is unsatisfactory.

2. Any student who, in the semester following such warning, incurs a further deficiency in grade points shall be put on probation.

3. Any student who has been placed on probation, and who incurs a further deficiency in grade points in the next succeeding semester, shall be dismissed (disqualified) from the University.

4. Any student who has been placed on probation owing to a deficiency in grade points shall remain on probation, unless he incur the penalty of dismissal from the University, until he reduce his deficiency to less than fifteen (15) grade points.

Persons who are disqualified in accordance with the foregoing regulations must, in every case, promptly withdraw from classrooms, libraries, laboratories, and all University activities, either as students or auditors. They must also cease to reside in resident clubs or fraternities, and must at once withdraw from student activities of every sort.

Any student so disqualified may be reinstated after an interval of at least a half-year, for reasons satisfactory to the Committee on Disqualified Students. The case of each disqualified student is handled individually, and the student must not assume that any particular method he may elect will be acceptable. It is necessary for any disqualified student who proposes ever to return to the Southern Branch to communicate without delay with this Committee through the Recorder in order that the question of reinstatement may be considered and that the student may arrange his studies during the interval of disqualification so that they will meet the Committee's requirements. Such reinstatement is a condition for registration in the summer session as well as in the spring or fall session.

TIME REQUIRED TO OBTAIN TRANSCRIPTS OF RECORD

Teachers and others who intend filing applications with the State Board of Education, and who desire a transcript of their credits at the close of any regular or summer session, are urged to give notice of their intention in the office of the Recorder some time before the close of the session. It requires some time for the preparation of the student's record for transfer, and the University cannot be responsible for the transmission of a transcript to its destination unless at least one week be allowed.

LEAVE OF ABSENCE AND HONORABLE DISMISSAL

Indefinite Leave of Absence is obtained only on written petition to the office of the Recorder. It is issued to a student in good standing who finds it necessary to withdraw, but who expects to resume his studies in the Southern Branch at the beginning of some future session. Withdrawal on indefinite leave of absence constitutes a severance of the student's connection with the University for the time being, and entails a loss of credit for any work in process of completion at the time of withdrawal.

A Brief Leave of Absence is issued, upon formal petition to the office of the Recorder, 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 with the University. No excuse for brief leave of absence will relieve the student from completing all the work of each course to the satisfaction of the instructor in charge.

Honorable Dismissal, indicating that the student, while in good standing, has voluntarily severed his connection with the Southern Branch, for the purpose of entering another institution, or who leaves without the expectation of returning to the Southern Branch, is obtained only on written petition to the office of the Recorder.

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

FEES

The incidental fee, \$20.00, which must be paid on date of registration, covers expenses of students other than the cost of their instruction and entitles them to the use of the gymnasium, tennis courts, swimming pool, lockers, 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, a portion of this fee will be refunded. Students registering for less than five units of work will pay half the incidental fee (\$10.00).

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

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

Old students are advised that application for reclassification as a resident of California may be filed within ten days of the regular registration day, 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.

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 departmental fees or deposits, \$2.00. Departmental fees and deposits must be paid within one week of the day of registration.

Late application for admission (after September 1, 1924, or January 29, 1925), \$2.00.

* There follows a reprint of the resolution adopted by the Finance Committee of the Regents of the University, June 19, 1923, in accordance with the provisions of Section 1394½, Political Code of California. "No person shall be considered eligible to register in the University as a resident of the State of California unless he has resided in the State for more than one year immediately preceding the semester during which he proposes to attend the University. The residence of each student shall be determined in accordance with the rules for determining residence prescribed by the provisions of Section 52 of the Political Code of California, provided, however, that every alien student who has not made a valid declaration of intention to become a citizen of the United States as provided by the laws thereof, prior to the opening day of the semester during which he proposes to attend the University, shall be deemed to be a non-resident student, and further provided, that every student shall be deemed to be a resident student who is either—

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

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

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

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

Late examination in Subject A, \$2.00.

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

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

Laboratory and Departmental Fees. — In the laboratories a charge is made for materials actually used. This charge, for students in the elementary laboratories, amounts to from \$5 to \$30 per year.

The military uniform and textbook deposit is \$20, payable by every student subject to military training before his registration book is filed. 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 University requires the student to deposit with the Comptroller an amount necessary to cover the cost of the articles issued to him. The deposit is refunded at the close of the academic year, or upon the student's withdrawal from the University, provided the student then returns in good condition all articles issued to him. The amount necessary to replace articles not returned by the student will be retained by the Comptroller.

Key deposit: a deposit of \$1 is required on each locker or university key issued to a student, a faculty member or an officer of the University. This deposit is refunded in full upon return of the key.

Other expenses are: Gymnasium outfit for men, \$5; for women, about \$8; books and stationery, from \$18 to \$25 per year. All students are eligible to membership in the Associated Students of the Southern Branch of the University of California. The cost of a membership card is \$5 per year. The card entitles the holder to participation in the affairs of the Associated Students; a subscription to the *Cub Californian*; admission to all athletic contests (with the exception of final intercollegiate contests) held on the campus under the jurisdiction of the Associated Students.

SCHEDULE OF REFUNDS**Incidental Fee of \$20.00**

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

Non-Resident Fee of \$75.00

To end of first week	Refund	65.00
From first week to end of the third week	Refund	50.00
From third week to the end of the sixth week	Refund	35.00
From the seventh week to the end of the 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, Southern Branch, is authorized to award a limited number of scholarships annually to students in the Southern Branch. The Committee rates all candidates as to scholarship, need, and character, and bases its recommendation upon relative ratings of all the candidates applying at any one time. Applications for these scholarships with letters and testimonials relating to them, should be filed with the Recorder on or before the fifteenth 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.

MISCELLANEOUS

MAINTENANCE

LIVING ACCOMMODATIONS

There are no dormitories maintained by the Southern Branch.

The cost of board and lodging in boarding houses near the campus is from \$40 to \$60 a month. For students living in housekeeping rooms and boarding themselves, the expenses may be reduced to as low as from \$30 to \$40 a month, but this plan is not generally recommended. Student apartments for two rent at from \$35 to \$75 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. The hours of recitation are such that students may commute from many of the towns in the vicinity of Los Angeles. Families, or groups of mature students, who wish to rent furnished houses or apartments should apply to local real estate agents.

The ordinary yearly expenses (including personal expenses) of a student in the academic departments would probably be at least \$675.

No woman is permitted to complete her registration unless her living accommodations are first approved by the Dean of Women. Lists of approved accommodations may be obtained at the office of the Dean of Women, Millspaugh Hall.

EMPLOYMENT

Women students desiring employment should apply at the office of the Dean of Women, Millspaugh Hall. At the present time students who assist with housework or the care of children give an average of three hours' work a day in exchange for board and room and \$10 a month.

Limited opportunities exist for obtaining employment on an hourly basis in the following fields: stenography, typewriting, general office work, tutoring, housework, care of children, serving as waitress, etc.

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

Applicants for employment in teaching or tutoring should apply at the office of the Appointment Secretary, Millspaugh Hall. 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 graduates 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 or to graduates for the service rendered by this office.

Little can be done in securing employment for students who are not actually on the ground to negotiate for themselves. It is usually so difficult for a stranger to obtain remunerative employment from the start that, in general, no one should come to Los Angeles expecting to become self-supporting through the University course, without having on hand sufficient funds to cover the expenses of the first half-year.

LIBRARY, GYMNASIUM, INFIRMARY

THE LIBRARY

The Library Building has a capacity exceeding 60,000 volumes, and reading rooms are provided for about 500 students.

The Library is open daily, except Sundays. 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.

The Library contains approximately 54,000 carefully selected volumes, and about 10,000 pamphlets.

The Library is regularly receiving 540 periodicals and continuations.

GYMNASIUM AND ATHLETIC FACILITIES

For Men

The Men's Gymnasium, though not large, affords opportunity for exercise in boxing, wrestling and gymnastic work and contains accommodations for approximately 1000 men in the locker rooms and 50 men at a time in the shower room. The athletic field measures 300 × 600 feet and contains a quarter-mile running track, three outdoor basketball courts and six handball courts, besides adequate room for football and baseball. There are six tennis courts. The swimming pool, 50 × 100 feet is at the rear of the Gymnasium.

For Women

The Women's Gymnasium is well equipped. Besides a main hall, 60 X 80 feet, there are class rooms, a corrective room, rest rooms, shower and dressing room accommodations. Nearby are two outdoor basketball courts and an athletic field, 200 X 300 feet.

THE INFIRMARY

The Southern Branch maintains on the campus, for the care of emergencies, an infirmary, with a physician and a trained nurse in charge. There are no facilities for hospital care. Students are entitled to medical consultation and advice. Every student receives a physical examination.

MUSICAL EVENTS

Five musical events are given during the year. The Christmas Concert consists of a University community programme of Christmas carols, given by the University Choral Club. At the Spring Concert an oratorio is performed by the University Choral Club, assisted by local artists as soloists. A series of Senior Piano Recitals is given by the fourth-year students. The Original Composition Programme is a public demonstration of the work of the year in music composition.

STUDENT SELF-GOVERNMENT

THE ASSOCIATED STUDENTS

The Southern Branch has student self-government. There is a complete organization, the Associated Students, that administers and controls all extra-curricular activities. This organization has an executive council composed of a president, two vice-presidents, three representatives of groups, and the chairmen of five activity boards. The activity boards control the activities in definite fields such as debating, athletics, dramatics or publications; while the council coördinates the work of these boards and administers the general business of the Association.

All financial and athletic interests of the Associated Students are administered by the Graduate Financial Manager and the Graduate Athletic Manager, respectively.

Subject to the approval of the Director, the University Affairs Committee, composed of ten members, passes on all cases of misconduct among the students.

PUBLICATIONS

The *California Grizzly* and *The Southern Campus* are the official publications of the students of the Southern Branch. The *California Grizzly*, the

student paper, is published semi-weekly. The *Grizzly* contains news of all campus and college activities, and is in direct charge of an editor and a manager appointed by the council. *The Southern Campus* is the year-book. It contains a complete record of the college life of the year, and is edited, managed, and financed by the students.

CO-OPERATIVE STORE

The Students' Co-operative Store was opened by the students of the Normal School in 1916, with the purpose of supplying a wide range of needed commodities at the lowest possible cost. Under the ownership of the Associated Students of the Southern Branch it has grown proportionately to the other campus activities.

SUMMER SESSION

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

The tuition fee is \$25, regardless of the number of courses taken.

The Announcements of the Summer Sessions are issued in January of each year and may be obtained by addressing the Dean of the Summer Sessions, Berkeley, or the representative of the Summer Session in Los Angeles, 815 Hillstreet Building, Los Angeles.

Summer Sessions are conducted at the seat of the University in Berkeley, at the Southern Branch in Los Angeles, at Davis, and at Riverside. In addition, the Intersession of six weeks, immediately preceding the Summer Session, has been organized 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 student. The Los Angeles office is at 817 Hillstreet Building.

VII. CURRICULA

There are established in Los Angeles: (A) The College of Letters and Science, leading to the degree of Bachelor of Arts; (B) The Teachers College, leading to the degree of Bachelor of Education.

A. COLLEGE OF LETTERS AND SCIENCE

INTRODUCTORY

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 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.

THE JUNIOR CERTIFICATE

Registrants in the College of Letters and Science will receive upon completion of the first two years' work a certificate to which their entrance credits and completed college credits entitle them. This certificate marks the transition to the junior and senior years.

Honorable mention will be granted with the junior certificate to students who attain at least second or B grade in 45 units. A student

who gains honorable mention is thereby considered eligible for the honors group in the department of his choice, subject to the approval of the department.*

In 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 junior and senior years, will make an effort to establish a basis for a breadth of culture 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 special tastes and preferences.

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 programme as to reduce the required work in the fields of foreign language, mathematics, and natural science. By so doing he makes his programme more flexible, gives himself a greater freedom of choice, and prepares himself 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 minimum amount of work required for the junior certificate (60) or for the degree (124).

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

(a₁) General University requirements.

¹ Subject A.

Military, 6 units (men).

Hygiene, 1 unit (men), or 2 units (women).

Physical Education, 2 units.

(a₂) Southern Branch requirement: Psychology X.

(b) Foreign Language. At least 15 units in not more than two languages. Each year of high school work in a foreign language will be counted in satisfaction of three units of this requirement. Courses given in English by a foreign language department will not be accepted in fulfillment of this requirement.

(c) Mathematics. Elementary algebra and geometry.

* See also "Candidacy for Honors," page 66 of this announcement.

¹ An examination in Subject A, English Composition, is required of all intrants at the time of their first registration in the Southern Branch. See page 48.

(d) Natural Science. At least 12 units chosen from the following list:

- High School Physics* (3A), 3 units (1 high school credit).
- High School Chemistry* (3B), 3 units (1 high school credit).
- Astronomy 1, 5, 11.
- Bacteriology 1*.
- Botany 1, 2A*-2B*.
- Chemistry 1A*-1B, 2A-2B*, 5*, 6A*-6B*, 8A-8B.
- Geology 1A, 1B, 1C, 2C-2D, 6*.
- Mineralogy 1A*-1B*, 2AB.
- Paleontology 1.
- Physics 2A-2B, 3A*-3B*, or 3C*-3D*.
- Zoology 1A*-1B*, 10.

The student must include in the courses taken in satisfaction of the requirement in natural science at least one course in laboratory science. Any of the courses marked with an asterisk (*) in the above list will be accepted in fulfillment of this requirement. Courses with but one unit of laboratory science are not accepted as fulfilling this requirement and are not marked above, unless they have as prerequisite a course that also requires one unit of laboratory work.

(e) *Additional.* A year course of at least 6 units in each of three of the following groups:

- (1) English, Public Speaking.
- (2) Foreign Language (additional to b). This may be satisfied in whole or in part in the high school, provided the language be Latin.
- (3) Mathematics: Plane Trigonometry, Plane Analytic Geometry, Introduction to Calculus. This may be satisfied partly in the high school.
- (4) History, Economics, Political Science.
- (5) Philosophy.

The work offered in satisfaction of requirement (e) must consist of subjects of college grade, except as otherwise provided, as shown in detail in the following list.

YEAR COURSES ACCEPTABLE IN FULFILLMENT OF REQUIREMENT (e) FOR THE
JUNIOR CERTIFICATE

Group 1—English and Public Speaking

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

Group 2—Foreign Languages

French: any two consecutive courses of A, B, C, D, 1A, 1B, 5, or any upper division year sequence.

German: any two consecutive courses of A, B, C, D; or SC-SD; or any upper division year sequence.

Greek: 1AB-2AB, 101.

Latin: any year sequence from the following: C, D, 1, 5, 102, 106.
Two years of high school Latin are accepted as the equivalent of a year course.

Spanish: any two consecutive courses of A, B, C, D, CD, 45, 50A-50B, or any upper division year sequence.

Group 3—Mathematics

Any two of the courses of C, 3A, 3B, 5, 6, 8, or 9. High school plane trigonometry (2e) and plane analytic geometry (2f) will be accepted in partial satisfaction of this requirement, each to count for 2 units.

Group 4—History, Economics, Political Science

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

Economics 1A-1B.

Political Science 1A-1B.

Group 5—Philosophy

Philosophy 1A-1B; 3A-3B; or 4A-4B.

ADDITIONAL COURSES ACCEPTABLE IN FULFILLMENT OF REQUIREMENTS FOR
JUNIOR CERTIFICATE

Summer Session Courses.—Students who desire to satisfy the specific subject requirements for the Junior Certificate in the Summer Session 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), (c) and (d) may be met in whole or in part by the completion of acceptable courses in the Summer Session. For a list of such courses, see the Announcements of the Summer Sessions. The requirements in units must be met in full. Courses offered in fulfillment of requirement (e) must be taken in the fall and spring sessions.

University Extension.—The maximum amount of credit granted toward a degree to a student whose programme is confined to courses in the Extension Division (correspondence or class) is 15 units per year.

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

For regulations concerning study-list limits in the College of Letters and Science, see page 45 of this announcement. A student in the lower division should each semester designate his intended major. This will make it possible for his adviser to advise him concerning prerequisites for the major.

UPPER DIVISION

Only those students who have been granted the junior certificate, signifying their completion of lower division requirements, 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.
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 48 of this announcement.
3. At least 54 units of college work must be completed after the receipt of the junior certificate.

4. At least 36 units of work completed in the upper division (of which 24 units shall constitute the major) must be in upper division or graduate courses in the following departments or subjects:

Art	Latin, M
Astronomy	Mathematics, M
Botany	Military Science
Chemistry, M	Music
Economics, M	Philosophy, M
Education	Physical Education for Men
English, M	Physical Education for Women
French, M	Physics, M
Geography	Political Science, M
Geological Sciences	Psychology, M
German	Public Speaking
Greek	Spanish, M
History, M	Zoology, M

5. A major of 24 upper division units must be completed according to the rules given below.

6. The final or senior year, including at least 24 units, must be taken in resident courses of instruction at this University. This work can most satisfactorily be done during the fall and spring (not summer) sessions. No student will be recommended for the degree of Bachelor of Arts who has not been registered during the final semester of his undergraduate course in the College of Letters and Science.

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

8. All candidates for the A.B. degree are required to complete the senior or final year of residence in the College of Letters and Science; this regulation is effective on and after July 1, 1924, and applies to students transferring from another college of this University, as well as to students entering this University from another institution.

9. An upper division reading course on the American constitutional system is prescribed for all candidates for the A.B. degree to be awarded in and after June, 1925.

MAJORS FOR THE A.B. DEGREE

A major 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. If the greater part of the major work is in one department, this is known as the major department. If the major is a curriculum of courses from two or more departments, no one of which represents the greater part of the work involved, the major may be known as a group major, and its administration be in the hands of a committee instead of a department.

Majors may be offered in the Southern Branch for the A.B. degree in any of the subjects or departments listed above with the designation M (under requirement 4 for the A.B. degree). The general outline of the content of these majors may be found in the respective department announcements in the succeeding "Announcement of Courses." The details of the programme must be approved by a representative of the department chosen. It is recognized that suitable programmes may be prepared that are not included in any of the published announcements. A student may, therefore, with the advice and approval of a member or members of the faculty, present a plan for a major or group major to the Dean of the College of Letters and Science. If this meets with his approval, he will designate a member of the faculty to take charge of the student's special major and approve his upper division study-lists and the final completion of the major.

Special attention is called to the courses listed as preparation for or prerequisite to 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, be taken *in residence* at the University (fall, spring, and summer sessions).

For regulations concerning study-list limits, see page 45 of this announcement.

A change in the major may be made only by permission of the Dean of the College and of the department to which the student petitions to transfer. Notice that such change has been authorized will be sent by the Recorder to the departments concerned.

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, at the option of the department, be denied the privilege of a major in that department.

Each major department is expected to send to the Dean of the College from time to time lists of students who, in the opinion of the department, cannot profitably continue as major students in the department, together with a statement of the basis for such opinion and of the probable causes for the students' lack of success. In such cases the Dean of the College may, with the approval of the department concerned, permit a change in the major, or may, with the approval of the Director of the Southern Branch, require the students to withdraw from the college.

Students who take all of their upper division work in the University of California, Southern Branch, must take at least 6 units in their major (at least 3 units each semester) during their last or senior year.

Students who transfer to the University of California from other institutions, with senior standing at the time of their admission, must complete at least 18 units of work in upper division courses, including at least 12 units in their major department or group major in this University.

Status of Courses in Professional Curricula.—Certain designated professional curricula (as in the first year of the Medical School, or the first year in the School of Jurisprudence) are accepted as constituting a year's work towards the A.B. degree. If such be offered in lieu of a major in Letters and Science, all of the courses required or included as a part of the student's programme in that curriculum become required courses for the degree.

For regulations concerning study-list limits, see page 45 of this announcement.

CANDIDACY FOR HONORS

The attention of juniors and seniors is called to the fact that the only requirement for registration as honors students is the formal approval of the department of their choice. Serious students who have done reasonably well in the lower division are strongly recommended to avail themselves of the advantages which they can derive as honors students from the personal guidance and supervision of the members of the department in which they choose to do their major work.

Any student who is approved by his major department as a member of the honors group will, so long as he remains in the honors group, report at the beginning of each half-year to the department of his major work. The department will advise him in the choice of his studies and will specifically approve all courses taken in the department of the student's major.

After the first half of the junior year the Committee on Candidates for Honors will, upon the recommendation of the several departments, decide what students shall remain in the honors group and what students shall be promoted to the honors group. In determining these matters the committee will consider not only the student's work in the department of his major but his entire record.

The several departments have full freedom in determining the most efficacious methods for the training of candidates for honors; but no student will be required to take more than 24 units of upper division work in the department of his major. Departments may offer special honors courses in reading and research, with credit to be determined by the instructors in charge, according to the performance of the individual student, subject to such general restrictions as may be imposed by the department and by the Committee on Courses. The work of the student in such an honors course may consist of additional work in connection with regular courses of instruction, or may be independent of such courses.

It will be quite possible, though perhaps not often desirable, for a student who is enrolled as a candidate for honors in one department to be transferred to another. In order to make such a change, it will be necessary for him to secure the consent of the department to which he desires to be transferred. If, therefore, at the beginning of his junior year a student who is eligible for candidacy has not yet finally determined upon his major subject, he should enroll with the department to which he is most inclined at the time, understanding that at the beginning of any subsequent term he may make a change in accordance with the conditions just stated.

Before commencement, a department satisfies itself by means of a general final examination, or in such other manner as it may deem best, of the fitness of each candidate for honors at graduation. Candidates who, in the judgment of their departments, display marked superiority in their major subject receive the special distinction of highest honors. The list of students upon whom honors and highest honors are conferred, with mention of their major department, appears in the annual Commencement Programme.

PREPARATION FOR VARIOUS PROFESSIONAL CURRICULA OF THE UNIVERSITY

Certain courses given at the Southern Branch of the University of California may be used as preparatory to the colleges and schools conducted by the University in Berkeley and in San Francisco.

a. PRE-LEGAL

Admission to the School of Jurisprudence.—The following persons will be admitted to the School of Jurisprudence at Berkeley without examination:

As candidates for the degree of Juris Doctor:

- (1) Graduates of the University of California holding the degree A.B. or B.S., and holders of equivalent degrees from other colleges and universities of approved standing.
- (2) Students of the University of California who have attained at least senior standing in the College of Letters and Science or in the College of Commerce.

b. PRE-DENTAL—PROVISIONAL CURRICULUM

This curriculum assumes the completion of the following subjects in the high school: English, two 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 foreign language has been pursued in the high school. It is assumed that at least two years of a foreign language have been completed in the high school, and that this language is continued in the University.

<i>First Year</i>	Units first half	Units second half
*Subject A (examination in English expression).....		
Military training.....	1½	1½
Physical Education.....	½	½
Hygiene lectures.....	2 or 1	.....
General Inorganic Chemistry and Qualitative Analysis, with laboratory (Chemistry 1a-1b).....	5	5
English 1A.....	.....	3
†Additional year course.....	3	3
†Foreign language.....	5	3
Electives.....	0	0 or 1½
	15½ or 16	16

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

<i>Second Year</i>	Units	Units
	first half	second half
Military training.....	1½	1½
Physical Education.....	½	½
Elements of Organic Chemistry (8).....		3
Elements of Organic Chemistry laboratory (9).....		3
†General Zoology, including Embryology (1a-1b) or Physics 1A-1B	5	5
†Economics, Philosophy, History, Political Science.....	3	3
English 1B.....	3	.....
Foreign language.....	3	.....
Electives.....	0 or 1½	0 or 1½
	16	16

Upon receipt of the junior certificate in the College of Letters and Science, pre-dental curriculum, the student will be eligible to register in the College of Dentistry at San Francisco. Those entering with the junior certificate may receive at the end of the first three years of the four-year dental curriculum, the degree of Bachelor of Science in Dentistry; and upon completion of four years, the degree of D.D.S.

Persons desiring to matriculate in the College of Dentistry should send their credentials to the University Examiner in Berkeley for his approval.

NOTE.—The plan of a pre-dental curriculum in the College of Letters and Science does not change the length of the present dental course (four years following admission to undergraduate standing); it offers an alternative plan combining a two-year academic preparation with the professional four-year course. For further information consult the Bulletin of the College of Dentistry.

C. PRE-MEDICAL—THREE YEARS

The following tabulated curriculum represents the most satisfactory arrangement of work to meet the medical prerequisite courses, as prescribed for those entering the Medical School in and after August, 1923. The student should, however, make sure that his course is so arranged as to satisfy the junior certificate and other requirements of the College of Letters and Science in order that his entrance to the Medical School and the attainment of his A.B. and M.D. may not be delayed. All requirements for matriculation in the Medical School must be completed in full by the end of the spring semester next preceding the date of the applicant's proposed matriculation. Certain variations in the chronological arrangement may be necessitated if the high school course included the minimum of foreign language work. Such variation may be made with the approval of the faculty adviser.

† See requirements for the junior certificate, College of Letters and Science.

This curriculum assumes the completion of the following subjects in the high school: 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 study has been pursued four years in the high school.

PRE-MEDICAL PROGRAMMES¹

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
Hygiene.....	1 or 2	
Chemistry 1A-1B.....	5	5
*English 1A-1B.....	3	3
*Foreign Language, 2 to 5 units.....	2 to 5	2 to 5
Electives as necessary to make up units.....		
	16	16
<i>Second Year</i>		
Military Science.....	1½	1½
Physical Education.....	½	½
Zoology 1A-1B.....	5	5
Year course (Requirement "e" for the junior certificate).....	3	3
Year course (Requirement "e" for the junior certificate).....	3	3
Electives (Foreign language if necessary to complete 15 units for J. C.)	3	3
	16	16
<i>Third Year</i>		
Physics 2A-2B.....	3	3
Physics 3A-3B.....	1	1
Chemistry 8.....	3	
Chemistry 9.....	3	
Electives.....	5	12
	15	16

¹ Chemistry 5 (Quantitative Analysis, 3 units) is required for admission by a large number of medical schools. Although it is not a requirement for admission to the University of California Medical School, students who can conveniently include this course in their programmes are advised to do so.

² English 1A-1B. If the student fails to pass the examination in Subject A it will be necessary to postpone English 1A-1B until he has completed the course in Subject A for which no units are allowed. The student is advised to substitute in the interim one of the year courses which are required for the junior certificate under requirement (e) in place of English 1A-1B.

³ Foreign Language. The Medical School requirement is 10 units of credit in either French or German, and the junior certificate requirement is 15 units of foreign language in not more than two languages. These may be satisfied partly in the high school. The student's programme should be made to satisfy these requirements.

B. For students who have completed four 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
Hygiene.....		1 or 2	
Chemistry 1A-1B.....		5	5
*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
		17	16

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

Second Year

Military Science.....	1½	1½
Physical Education.....	½	½
Zoology 1A-1B.....	5	5
Chemistry 8.....	3	
Chemistry 9.....	3	
Electives (foreign language if necessary to complete 15 units for J. C.)	3	9
	16	16

Third Year

Physics 2A-2B.....	3	3
Physics 3A-3B.....	1	1
Electives.....	11	11
	15	15

d. AGRICULTURE

The prospective student should consult the requirements and recommendations for matriculation, as stated on page 30. Failure to take the proper subjects in high school may delay graduation.

More detailed information concerning instruction in the College of Agriculture than is given below is contained in the Prospectus of the College of Agriculture. This may be obtained by applying to the Dean of the College of Agriculture, Berkeley, California.

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

* 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 programme should be made to satisfy these requirements.

EXAMPLE OF PROGRAMME

FRESHMAN YEAR

<i>First Half-year</i>	Units	<i>Second Half Year</i>	Units
Military Science 1A.....	1½	Military Science 1B.....	1½
Physical Education.....	½	Physical Education.....	½
Hygiene 1, Military Hygiene.....	1	Botany 2B, General Botany.....	4
Botany 2A, General Botany.....	4	Chemistry 1B, General Chemistry.....	5
Chemistry 1A, General Chemistry.....	5	Elective.....	8
Mathematics C, Trigonometry.....	3		
Elective.....	4		
	19		19

a. CHEMISTRY

Preparation.—Students who propose to enter the College of Chemistry should include in their high school programmes physics (one year), chemistry (one year), mathematics, including trigonometry (three years), German or French (two years), and geometrical drawing (one year). Without this preparation it will be difficult or impossible to complete the required curriculum within four years. It should be noted that the equivalents of high school physics and chemistry are given in the University during the summer sessions only, not during the fall or spring sessions.

Foreign Language Requirement.—A satisfactory reading knowledge of scientific German before the junior year is essential. The student is urged also to acquire a reading knowledge of French.

FRESHMAN		SOPHOMORE	
*Subject A.....		Mil. 2A-2B.....	1½ 1½
Mil. 1A-1B.....	1½ 1½	Phys. Educ. 1C-1D.....	½ ½
Phys. Educ. 1A-1B.....	½ ½	Math. 4A-4B.....	3 3
Hygiene I.....	1	Phys. 4A-4B.....	3 3
Math. 3A-3B.....	3 3	Chem. 6A-6B.....	3 3
Phys. 1A-1B.....	3 3	Chem. 8.....	3
Chem. 1A-1B.....	5 5	Chem. 9, 100.....	3 3
German SA-SB.....	3 3	Chem. 110.....	3 3
Elective.....	2		
	17 18		17 17

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

f. CIVIL ENGINEERING

FRESHMAN

*Subject A.....	.....	.....
Mil. 1A-1B.....	1½	1½
Physical Education 1A-1B.....	½	½
Hygiene 1.....	1	.....
Mathematics 3A-3B.....	3	3
Physics 1A-1B.....	3	3
Chemistry 1A-1B.....	5	5
C. E. 1A-1B.....	3	3
C. E. 2 (s. s.).....	(3)	.....
Elective.....	.....	2
	17	18

SOPHOMORE

Mil. 2A-2B.....	1½	1½
Physical Education 1C-1D.....	½	½
Mathematics 4A-4B.....	3	3
Mech. 2.....	.....	3
Astronomy 3.....	.....	1
C. E. 8.....	.....	2
Physics 4A-4B.....	3	3
Geology 1A.....	3	.....

RAILROAD AND IRRIGATION

Mech. 1.....	3	.....
Min'l. 1A-1B, or.....	½	.....
Mech. 8A-8B, or.....	2	2
Mech. 9A-9B or.....	.....	.....
†Mech. 6.....	.....	.....
Elective.....	3	2
	19	18

SANITARY AND MUNICIPAL

Chemistry 8.....	3	.....
C. E. 25.....	2	.....
Bacteriology 1.....	.....	4
Elective.....	3	.....
	19	18

g. COMMERCE

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

English Composition: Subject A. Examination required of all.* In addition 6 units of English: English 1A-1B or English 1C-1D or Public Speaking 1A-1B.

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

‡Psychology X.

History or Political Science:

History 4A-4B, or History 8A-8B, or Political Science 1A-1B, or any combination of the foregoing courses 6 units

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

† Mech. 6 is a 5-unit course, second semester, the extra unit may be counted as elective.

‡ Southern Branch requirement.

Geography:

Geography 1 (Introduction to Geography: Elements) and Geography 2 (Regions and Distribution of Population and Culture)	6
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Natural Sciences	9
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Mathematics:

Mathematics 1 (Algebra)	3
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Mathematics 2 (Mathematical Theory of Investment).....	3
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Economics:

Economics 1A-1B	6
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Military Science, Physical Education, Hygiene	9
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Electives	16
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Total	64 units
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Courses in physics and chemistry taken in high school may be applied toward the satisfaction of the science requirement.

The prerequisite of Mathematics 2 is Mathematics 1 or two years of high school algebra and trigonometry. For Mathematics 1 elementary algebra is necessary and at least a first course in algebraic theory is strongly recommended.

h. MECHANICAL AND ELECTRICAL ENGINEERING

FRESHMAN

*Subject A.....	1	1
Mil. 1A-1B.....	1	1
Physical Education 1A-1B.....	1	1
Hygiene 1.....	1	1
Mathematics 3A-3B.....	3	3
Chemistry 1A-1B.....	5	5
Physics 1A-1B.....	3	3
C. E. 1A-1B.....	3	3
M. E. 18 (Summer).....	(3)	†
Elective.....	1	2
	18	18

SOPHOMORE

Mil. 2A-2B.....	1	1
Physical Education.....	1	1
Mathematics 4A-4B.....	3	3
Mechanics 2.....	3	3
Mechanics 6.....	5	5
Physics 5.....	3	3
Physics 4A-4B.....	3	3
‡Mechanics 8A-9B.....	2	2
Free Electives.....	5	5
	18	18

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

† Three units of the shop work requirement must be taken in the Interession or Summer Session (6 weeks, 4 days of 6 hours each; 144 hours), credit 3 units, or 1½ units taken in each session (Interession and Summer Session) totaling 144 hours, credit 3 units.

‡ May be any two of 8A, 8B, 9A, 9B.

B. THE TEACHERS COLLEGE

The curricula of the Teachers College are organized on the basis of four years of combined academic and professional work. Each leads to the professional degree of Bachelor of Education. Each also leads to one of the following types of teaching credentials:

1. The General Junior High School Credential, valid in grades 7, 8, and 9 when organized as a junior high school.
2. The Secondary Special Credential of the following types: Arts, Commercial, Home Making (Pre-Vocational), Occupations and Home Mechanics (Pre-Vocational), Music, and Physical Education. These credentials are valid in the high school, junior high school, and elementary school.
3. The Kindergarten-Primary Credential, valid in the kindergarten and grades 1, 2, and 3 of the elementary school.
4. The General Elementary Credential, valid in the eight grades of the elementary school. Opportunity is provided for specialization in one or more of the following fields:
 - a. Elementary school administration and supervision.
 - b. Departmental work in the various elementary school subjects.
 - c. Rural supervision and administration.
 - d. Civic education (Americanization).
 - e. Adjustment and opportunity room work.
 - f. Vocational and part-time education.

In accordance with the provisions of the bill transforming the Los Angeles State Normal School into the Teachers College of the University of California, students may receive either the General Elementary or the Kindergarten-Primary Teaching Credential upon the completion of the first two and one half years of the regular four-year curricula leading to these credentials.* By special arrangement with the department concerned, it is also possible for students to receive the Elementary and Junior High School Special Teaching Credentials upon the completion of the first three years of the regular four-year curricula. Students wishing to avail themselves of this provision should consult the department concerned at the time of registration in order that their courses may be properly arranged. The curriculum pursued should be plainly stated on the registration form and on the study-list.

* On September 1, 1925, these courses will be extended to three years, in accordance with a ruling by the State Board of Education. This ruling will not affect students registering in these curricula prior to September, 1925.

REQUIREMENTS FOR GRADUATION FROM THE TEACHERS COLLEGE

Graduation from the Teachers College (with recommendation for certification) is based upon the following conditions and requirements:

- *I. Admission to regular status in the Teachers College.
- II. Completion of a total of 128 units of credit and grade points as specified on page 48.
- III. Presentation of a certificate of physical health and fitness from the Southern Branch medical examiners.
- IV. Recommendation of the departments in which the principal and secondary sequences of work are taken, and of the responsible authorities as to the student's fitness for teaching.
- V. Satisfactory completion of the following sequences of work:
 - A. General Sequences45-46 units
 - 1. Subject A.
 - 2. Psychology X, 2, and 30 7
 - 3. English (including English 1A) 6
 - 4. Natural Sciences 12

Courses in physical or biological sciences approved by adviser. One course must include laboratory work.†
 - 5. Social Sciences:
 - Economics 1A 3
 - Political Science 50 3
 - Elective courses in History, Political Science, or Economics, approved by adviser 6
 - 6. Military Science 1AB, 2AB (men) 6
 - 7. Physical Education 1 (men) 1
 - 8. Physical Education 2 (women) 2
 - 9. Physical Education (professional courses for women) 4
 - 10. Physical Education. (Required courses for men and women. One-half unit each semester during the freshman and sophomore years) 2

* Students registering for any Teachers College curriculum leading to the degree of Bachelor of Education, without two years of mathematics (one year algebra and one year geometry) and two years of one foreign language, must complete as a part of the freshman and sophomore requirement one year (6 units) of mathematics and one year (10 units) of a foreign language.

†A year course in physics or chemistry completed in the high school will satisfy the laboratory requirement.

B. Departmental Sequences43-51 units

Courses chosen from the following departments:

(1) Art, (2) Biology, (3) Chemistry, (4) Classical Languages, (5) Commerce, (6) English, (7) Geography, (8) Geology and Meteorology, (9) German, (10) History, (11) Home Economics, (12) Mathematics, (13) Mechanic Arts, (14) Music, (15) Philosophy and Psychology, (16) Physical Education, (17) Physics, (18) Political Science, (19) Romanic Languages.

At least 20 units must consist of upper division courses. Of these, the student must elect not less than 8 units in each of two departments, or not less than 5 units in each of three departments. Including upper and lower division courses, at least 12 units must be completed in one department.

C. Professional Courses32-40 units**1. Principal Sequence (required of all students):**

Education 11, 21 or 170	3
Education 180	2
Education 148	3
Laboratory practice in teaching	10

2. Secondary Sequence (14-22 units).

Professional courses leading to specialization in various fields of education, to be chosen by the student with the approval of his adviser. At least 3 units of advanced educational psychology must be included.

KINDERGARTEN-PRIMARY TRAINING CURRICULUM

SUGGESTED FOUR-YEAR CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF EDUCATION AND TO RECOMMENDATION FOR THE KINDERGARTEN- PRIMARY TEACHING CREDENTIAL

For admission to this curriculum the applicant must show ability to play materials of the difficulty of the Arnold Collection and the accompaniments of the Barbour Child Land Books I and II. If a student is conditioned in piano, she must remove this condition before assignment to practice teaching will be made.

<i>First Semester</i>	FRESHMAN YEAR	<i>Second Semester</i>	
Subject A.....		Art 20A.....	2
Psychology X.....	1	Education 21.....	3
Commerce 1A.....	3	English 1B.....	3
English 1A.....	3	Music 61A.....	2
Geography 1A.....	3	Psychology 2.....	3
Zoology 12.....	3	Physical Education 12A.....	2
Physical Education 2.....	2	Physical Education (required).....	1
Physical Education (required).....	1		
	15½		15½

<i>First Semester</i>	SOPHOMORE YEAR	<i>Second Semester</i>	
Art 20B.....	2	Commerce 18A.....	2
Botany 1 or Agriculture 10.....	3	Education 124A.....	3
Education 132.....	3	Education 148.....	3
English 12A.....	2	History 11.....	2
Psychology 30.....	3	Political Science 50.....	3
Physical Education 12B.....	2	Public Speaking 15B.....	2
Physical Education (required).....	1	Physical Education (required).....	1
	15½		15½

<i>First Semester</i>	JUNIOR YEAR	<i>Second Semester</i>	
Education 124B.....	3	English 130.....	3
Education 180.....	2	Psychology 107A or 126.....	3
Teaching K190AB.....	10	Natural Science (elective).....	3
	15	†Departmental Sequences.....	8
			17

<i>First Semester</i>	SENIOR YEAR	<i>Second Semester</i>	
Education 126.....	3	Education 128.....	3
*History 4A.....	3	*History 4B.....	3
†Departmental Sequences.....	11	†Departmental Sequences.....	11
	17		17

* Other courses in the same department may be substituted with the written approval of chairman of department and adviser.

† Either two or three departmental sequences should be chosen by the student in conformance with the statement on page 78.

NOTE.—Until September 1, 1927, the Kindergarten-Primary Credential will be granted upon the completion of the first two and one-half years of the foregoing curriculum. After that date, the first three years will be required.

ELEMENTARY SCHOOL TRAINING CURRICULUM

SUGGESTED FOUR-YEAR CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF EDUCATION AND TO RECOMMENDATION FOR THE ELEMENTARY TEACHING CREDENTIAL

<i>First Semester</i>	FRESHMAN YEAR	<i>Second Semester</i>	
Subject A.....		English 12A.....	2
Psychology X.....	1	*History 7A.....	3
Psychology 2.....	3	Mathematics 17.....	3
*Botany 1 or Zoology 10.....	3	Psychology 30.....	3
Commerce 1A.....	3	*Zoology 12 or Agriculture 10.....	3
English 1A.....	3	Military Science 1B (men).....	1½
Military Science 1A (men).....	1½	Physical Education 10A (women)....	2
Physical Education 1 (men).....	1	Physical Education (required).....	½
Physical Education 2 (women).....	2		
Physical Education (required).....	½		16-16½
	16-16½		

<i>First Semester</i>	SOPHOMORE YEAR	<i>Second Semester</i>	
Art 10A.....	2	Education 132.....	3
Commerce 18A.....	2	Music 60.....	2
English 12B.....	2	Political Science 50.....	3
Education 11.....	3	†Departmental Sequences.....	5-7
*Geography 1A.....	3	Military Science 2B (men).....	1½
*History 7B.....	3	Physical Education (required).....	½
Military Science 2A (men).....	1½		
Physical Education 10B (women)....	2		15-15½
Physical Education (required).....	½		
	17-17½		

<i>First Semester</i>	JUNIOR YEAR	<i>Second Semester</i>	
Education 148.....	3	Education (elective).....	3
Education 180.....	2	*Psychology 126.....	3
Teaching E190AB.....	10	†Departmental Sequences.....	10-11
	15		16-17

<i>First Semester</i>	SENIOR YEAR	<i>Second Semester</i>	
Education 131.....	3	Education 139.....	3
Education (elective).....	3	Education (elective).....	3
†Departmental Sequences.....	10	†Departmental Sequences.....	10
	16		16

* Other courses in the same or allied departments may be substituted with the written approval of chairman of department and adviser.

† Either two or three departmental sequences should be chosen by the student in conformance with the statement on page 78.

NOTE.—Until September 1, 1927, the General Elementary Credential will be granted upon the completion of the first two and one-half years of the foregoing curriculum. After that date, the first three years will be required.

JUNIOR HIGH SCHOOL TRAINING CURRICULUM

SUGGESTED FOUR-YEAR CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF EDUCATION AND TO RECOMMENDATION FOR THE JUNIOR HIGH SCHOOL TEACHING CREDENTIAL

FRESHMAN YEAR

<i>First Semester</i>	<i>Second Semester</i>
Subject A.....	English 1B..... 3
Psychology X..... 1	Natural Science (elective)..... 5
Commerce 1A..... 3	Psychology 2..... 3
English 1A..... 3	Political Science 50..... 3
Natural Science (elective)..... 6	Military Science 1B (men)..... 1½
Military Science 1A (men)..... 1½	Physical Education 10A (women).... 2
Physical Education 1 (men)..... 1	Physical Education (required)..... ½
Physical Education 2 (women)..... 2	16-16½
Physical Education (required)..... ½	
16-15½	

SOPHOMORE YEAR

<i>First Semester</i>	<i>Second Semester</i>
Psychology 30..... 3	Education 132..... 3
Political Science (elective)..... 3	Social Science (elective)..... 3
Natural Science (elective)..... 3	†Departmental Sequences..... 8-9
†Departmental Sequences..... 5	Military Science 2B (men)..... 1½
Military Science 2A (men)..... 1½	Physical Education (required)..... ½
Physical Education 10B (women).... 2	16-15½
Physical Education (required)..... ½	
16-16½	

JUNIOR YEAR

<i>First Semester</i>	<i>Second Semester</i>
Educational Psychology (elec.)..... 3	Education (elective)..... 2
Education 180..... 2	Education 130..... 3
Education 148..... 3	Teaching J191A..... 5
Departmental Teachers Course..... 2	†Departmental Sequences..... 5-6
†Departmental Sequences..... 6	15-16
16	

SENIOR YEAR

<i>First Semester</i>	<i>Second Semester</i>
Education 170..... 3	Education 172..... 3
Education 166..... 3	Education (elective)..... 3
Teaching J191B..... 5	†Departmental Sequences..... 10
†Departmental Sequences..... 5	16
16	

† Either two or three departmental sequences should be chosen by the student in conformance with the statement on page 78.

ART TRAINING CURRICULUM

SUGGESTED FOUR-YEAR CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF
EDUCATION AND TO RECOMMENDATION FOR THE SECONDARY
SPECIAL TEACHING CREDENTIAL IN ART

FRESHMAN YEAR

<i>First Semester</i>		<i>Second Semester</i>	
Subject A.....		Art 1b.....	1
English 1a.....	3	English 1b.....	3
Psychology X.....	1	Physiology 10 or Zoology 12.....	3
Art 1a.....	1	Political Science 50.....	3
Botany 1 or Zoology 10.....	3	Psychology 30.....	3
Commerce 1a.....	3	Military Science 1b (men).....	1½
Psychology 2.....	3	Physical Education 14a (women).....	2
Military Science 1a (men).....	1½	Physical Education (required).....	½
Physical Education 1 (men).....	1		
Physical Education 2 (women).....	2		15-15½
Physical Education (required).....	½		
	17-16½		

SOPHOMORE YEAR

<i>First Semester</i>		<i>Second Semester</i>	
Art 2a.....	2	Art 2b.....	2
Art 4a.....	2	Art 3.....	1
Art 8a.....	1	Art 4b.....	2
Art 12a.....	1	Art 16b.....	1
Art 31a.....	1	Art 31b.....	1
Science (elective).....	6	Science (elective).....	6
Military Science 2a (men).....	1½	Military Science 2b (men).....	1½
Physical Education 14b (women).....	2	Physical Education (required).....	½
Physical Education (required).....	½	Philosophy 136b.....	3
	15-15½		18-16½

JUNIOR YEAR

<i>First Semester</i>		<i>Second Semester</i>	
Art 8b.....	1	Art 32b.....	2
Art 32a.....	2	Art 103.....	1
Art 134 or 19b.....	2	Art 154a or 10a.....	2
Art 137a.....	1	Art 135 or 9b.....	2
Art 156a or 9a.....	2	Art 160b.....	2
Art 160a.....	2	Art 161b.....	1
Art 161a.....	1	Elective.....	3
Elective.....	2	Teaching A191a.....	3
Teaching A190a.....	3		
			16
	16		

SENIOR YEAR

<i>First Semester</i>		<i>Second Semester</i>	
Art 152A or 139A.....	2	Art 135B or 129B.....	2
Art 168.....	1	Art 152B.....	2
Art 183 or 129A.....	2	Art 137B or 139B.....	2
Art 198A.....	1	Art 180.....	2
Education 180.....	2	Education 148.....	3
Education 170.....	3	Education 101.....	3
Elective or Teaching A192.....	3-4	Elective or teaching A192.....	2-4
	15		16

By special arrangement students completing the third year of this course may qualify for the elementary and junior high school credential in art.

COMMERCE TRAINING CURRICULUM

SUGGESTED FOUR-YEAR CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF EDUCATION AND TO RECOMMENDATION FOR THE SECONDARY SPECIAL TEACHING CREDENTIAL IN COMMERCE

FRESHMAN YEAR

<i>First Semester</i>		<i>Second Semester</i>	
Subject A.....		Commerce 1B.....	3
Psychology X.....	1	Commerce 16.....	2
Commerce 1A.....	3	Commerce 18A.....	2
English 1A.....	3	Geography 3A.....	3
Geography 1A.....	3	Jurisprudence 18B.....	3
Jurisprudence 18A.....	2	Military Science 1B (men).....	1½
Military Science 1A (men).....	1½	Physical Education 10A (women)....	2
Physical Education 1 (men).....	1	Physical Education (required).....	½
Physical Education 2 (women).....	2		15-15½
Physical Education (required).....	½		
	15-14½		

SOPHOMORE YEAR

<i>First Semester</i>		<i>Second Semester</i>	
Commerce 14A.....	3	Commerce 14B.....	3
Political Science 50.....	3	Commerce 17.....	3
Psychology 2.....	3	Commerce 18B.....	2
Military Science 2A (men).....	1½	English 1c.....	3
Physical Education 10B (women)....	2	Mathematics 18.....	2
Physical Education (required).....	½	Psychology 30.....	3
Natural Science (elective).....	4	Military Science 2B (men).....	1½
	15-15½	Physical Education (required).....	½
			18-16½

JUNIOR YEAR

<i>First Semester</i>		<i>Second Semester</i>	
Commerce 150.....	3	Commerce 151.....	3
Commerce 160A.....	3	Commerce 160B.....	3
Education 180.....	2	Education 148.....	3
Education 170.....	3	Teaching C192A.....	5
History 176.....	2	Elective.....	3
Commerce (elective).....	4		
	<hr/>		<hr/>
	17		17

SENIOR YEAR

<i>First Semester</i>		<i>Second Semester</i>	
Commerce 152.....	3	Commerce 153.....	3
Commerce 190.....	3	Commerce 191.....	3
Psychology (elective).....	3	Commerce 198.....	3
Teaching C192B.....	5	Elective.....	5-6
Education (elective).....	3		
	<hr/>		<hr/>
	17		14-15

HOME ECONOMICS TRAINING CURRICULUM

SUGGESTED FOUR-YEAR CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF EDUCATION AND TO RECOMMENDATION FOR THE SECONDARY SPECIAL TEACHING CREDENTIAL IN HOME MAKING

FRESHMAN YEAR

<i>First Semester</i>		<i>Second Semester</i>	
Subject A.....		Art 13.....	2
Psychology X.....	1	Chemistry 2B.....	4
Art 2A.....	2	Commerce 1B.....	3
Chemistry 2A.....	4	English 1B.....	3
Commerce 1A.....	3	Home Economics 1A.....	2
English 1A.....	3	Physical Education 10A.....	2
Physical Education 2.....	2	Physical Education (required).....	1
Physical Education (required).....	1		
	<hr/>		<hr/>
	15½		16½

SOPHOMORE YEAR

<i>First Semester</i>		<i>Second Semester</i>	
Chemistry 10.....	4	Bacteriology 1.....	3
Home Economics 1B.....	3	Home Economics 11B.....	4
Home Economics 11A.....	2	Political Science 50.....	3
Physics 11.....	3	Psychology 2.....	3
Physiology 1.....	3	Physical Education 10B.....	2
Physical Education (required).....	1	Physical Education (required).....	1
	<hr/>		<hr/>
	15½		15½

JUNIOR YEAR

<i>First Semester</i>		<i>Second Semester</i>	
Art 16A.....	1	Art 16B.....	1
Home Economics 128A.....	2	Education 148.....	3
Education 180.....	2	Home Economics 120.....	3
Home Economics 147A.....	3	Home Economics 147B.....	3
Home Economics 160.....	3	Home Economics 198.....	2
Psychology 30.....	3	Psychology (elective).....	3
Social Science (elective).....	3	Teaching H190A.....	2
	<hr/>		<hr/>
	17		17

SENIOR YEAR

<i>First Semester</i>		<i>Second Semester</i>	
Art 156A.....	2	Art 103.....	1
Education 170.....	3	Education (elective).....	3
Home Economics 196A or B.....	2	Home Economics (elective).....	4
Teaching H190B.....	2	Teaching H192A-B.....	4
Teaching H191.....	2	Elective.....	3
Elective.....	5		<hr/>
	<hr/>		15
	16		

By special arrangement students completing the third year of this course may qualify for the elementary and junior high school credential in home making.

VOCATIONAL SPECIAL HOME ECONOMICS TRAINING CURRICULUM*

THE SHORT CURRICULUM LEADING TO RECOMMENDATION FOR THE SECONDARY SPECIAL TEACHING CREDENTIAL IN VOCATIONAL HOME ECONOMICS

FRESHMAN YEAR

<i>First Semester</i>		<i>Second Semester</i>	
Subject A.....		Art 16B.....	1
Art 2A.....	2	Chemistry 2B.....	4
Chemistry 2A.....	4	Education 11.....	3
Commerce 1A.....	3	Home Economics 1A.....	2
English 1A.....	3	Home Economics 31.....	4
Physical Education 2.....	2	Political Science 50.....	3
Psychology 2.....	3		<hr/>
	<hr/>		17
	17		

* This course, maintained under the provisions of the Smith-Hughes Act, 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.

SOPHOMORE YEAR

<i>First Semester</i>		<i>Second Semester</i>	
Chemistry 10.....	4	Bacteriology 1.....	3
Home Economics 46.....	3	Education 148.....	3
Physiology 1.....	3	Home Economics 2.....	2
Teaching H190A.....	2	Home Economics 33.....	3
Physics 11.....	3	Home Economics 43.....	2
Home Economics 66.....	2	Teaching H192A-H192b.....	4
	17		17
		Total 68 units.	

MECHANIC ARTS TRAINING CURRICULUM

SUGGESTED FOUR-YEAR CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF EDUCATION AND TO RECOMMENDATION FOR THE SECONDARY SPECIAL TEACHING CREDENTIAL IN OCCUPATIONS AND HOME MECHANICS

FRESHMAN YEAR

<i>First Semester</i>		<i>Second Semester</i>	
Subject A.....		English 1A.....	3
Psychology X.....	1	Psychology 30.....	3
Psychology 2.....	3	Mechanic Arts 10a.....	2
Engineering Drawing D.....	2	Mechanic Arts 70.....	2
Mathematics 1.....	3	Physics 2a.....	3
Mechanic Arts 10A.....	2	Military Science 1b.....	1½
Physics 2A.....	3	Physical Education 1.....	1
Military Science 1A.....	1½	Physical Education (required).....	½
Physical Education (required).....	½		
	16		16

SOPHOMORE YEAR

<i>First Semester</i>		<i>Second Semester</i>	
Agriculture 10.....	3	Biology 10.....	3
Commerce 1A.....	3	Commerce 1b.....	3
Mechanic Arts 50.....	2	Mechanic Arts 40.....	1
Mechanic Arts 75A.....	2	Mechanic Arts 51.....	2
Mechanic Arts 12.....	2	Mechanic Arts 75b.....	2
Public Speaking 2A.....	3	Political Science 50.....	3
Military Science 2A.....	1½	Military Science 2b.....	1½
Physical Education (required).....	½	Physical Education (required).....	½
	17		16

JUNIOR YEAR

<i>First Semester</i>		<i>Second Semester</i>	
Commerce 100.....	2	Education 148.....	3
Education 160.....	3	Education 166.....	3
Education 180.....	2	Mechanic Arts 100b.....	3
Mechanic Arts 100a.....	3	Mechanic Arts 150b.....	2
Mechanic Arts 150a.....	2	Mechanic Arts 151.....	2
Mechanic Arts 160a.....	3	Mechanic Arts 160b.....	3
	15		16

SENIOR YEAR

<i>First Semester</i>		<i>Second Semester</i>	
Commerce 190.....	3	Commerce 191.....	3
Mechanic Arts 180a.....	3	Education 170.....	3
Mechanic Arts 190.....	2	History 176.....	2
Mechanic Arts 165.....	3	Mechanic Arts 180b.....	3
Teaching M.A. 192a.....	5	Teaching M.A. 192b.....	5
	16	*Garage.....	
			16

By special arrangement students completing the third year of this course may qualify for the elementary and junior high school credential in occupations and home mechanics.

MUSIC TRAINING CURRICULUM

SUGGESTED FOUR-YEAR CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF EDUCATION AND TO RECOMMENDATION FOR THE SECONDARY SPECIAL TEACHING CREDENTIAL IN MUSIC†

FRESHMAN YEAR

<i>First Semester</i>		<i>Second Semester</i>	
Subject A.....		English 1b.....	3
Psychology X.....	1	Music 6s.....	3
Commerce 1a.....	3	Music 7b.....	1
English 1a.....	3	Philosophy 1b.....	3
Music 6a.....	3	Political Science 50.....	3
Music 7a.....	1	Psychology 2.....	3
Philosophy 1a.....	3	Military Science 1b.....	1½
Military Science 1a (men).....	1½	Physical Education (required).....	1
Physical Education 2 (women).....	2		
Physical Education 1 (men).....	1		
Physical Education (required).....	1		
	17-16½		18-16½

* At least four months of commercial garage experience is required for certification in automobile mechanics.

† Students failing to satisfy the departmental requirement in music reading must take Music 5AB without credit during their freshman year.

SOPHOMORE YEAR

<i>First Semester</i>		<i>Second Semester</i>	
History 4A.....	3	History 4B.....	3
Psychology 30.....	3	Music 3B.....	2
Music 3A.....	2	Music 4B.....	3
Music 4A.....	3	Music 8B.....	1
Music 8A.....	1	Music 35.....	1
Zoology 10.....	3	Physics 12.....	3
Military Science 2A (men).....	1½	Military Science 2B.....	1½
Physical Education 14A (women)....	2	Physical Education (required).....	½
Physical Education (required).....	½	Physical Education 14B (women)....	2
	17-17½		15-15½

JUNIOR YEAR

<i>First Semester</i>		<i>Second Semester</i>	
Education 180.....	2	Education 148.....	3
Elective.....	3	Elective.....	3
Music 111A.....	2	Music 109B.....	1
Music 112A.....	3	Music 111B.....	2
Music 109A.....	1	Music 112B.....	3
Music 155A.....	3	Music 155B.....	3
Teaching M. 190A.....	3	Teaching M190B.....	2
	17		17

SENIOR YEAR

<i>First Semester</i>		<i>Second Semester</i>	
Music 101A.....	2	Education 170.....	3
Music 105A.....	2	Elective.....	3
Music 114A.....	2	Philosophy 136A or B.....	3
Music 184.....	2	Music 105B.....	2
Teaching M191.....	1	Music 101B.....	2
Teaching M192.....	4	Music 114B.....	2
	13		15

By special arrangement students completing the third year of this course may qualify for the elementary and junior high school credential in music.

PHYSICAL EDUCATION TRAINING CURRICULUM (MEN)

SUGGESTED FOUR-YEAR CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF EDUCATION AND TO RECOMMENDATION FOR THE SECONDARY SPECIAL TEACHING CREDENTIAL IN PHYSICAL EDUCATION

<i>First Semester</i>	FRESHMAN YEAR	<i>Second Semester</i>	
Subject A.....		Chemistry 2B.....	4
Psychology X.....	1	English 1A.....	3
Chemistry 2A.....	4	History (elective).....	3
Commerce 1A.....	3	Psychology 2.....	3
History (elective).....	3	Physical Education 7B or 8B.....	†
Physical Education 1.....	1	Physical Education 29B.....	1
Physical Education 1A.....	†	Military Science 1B.....	1‡
Physical Education 29A.....	1		16
Military Science 1A.....	1‡		
	<u>15</u>		

<i>First Semester</i>	SOPHOMORE YEAR	<i>Second Semester</i>	
Physical Education 10A.....	†	Philosophy 136A or Psychology 107... 3	3
Physical Education 29C.....	1	Physical Education 5.....	1
Physical Education 131.....	2	Physical Education 3B.....	†
Physiology 1.....	3	Physical Education 29D.....	1
Psychology 30.....	3	Physical Education 58.....	2
Public Speaking 2A.....	3	Political Science 50.....	3
Zoology 10.....	3	Zoology 35.....	5
Military Science 2A.....	1‡	Military Science 2B.....	1‡
	<u>17</u>		17

<i>First Semester</i>	JUNIOR YEAR	<i>Second Semester</i>	
Education 170.....	3	Education 180.....	2
Physical Education 30A.....	1	Physical Education 30B.....	1
Physical Education 147.....	2	Physical Education 155B.....	2
Physical Education 149.....	3	Physical Education 182A.....	3
Physical Education 155A.....	2	Physical Education 190B.....	3
Physical Education 190A.....	3	Teaching P192A.....	3
Teaching P190A.....	2	Elective.....	3
	<u>16</u>		17

<i>First Semester</i>	SENIOR YEAR	<i>Second Semester</i>	
Physical Education 30C.....	1	Education 148.....	3
Physical Education 156A.....	2	Physical Education 30D.....	1
Physical Education 180A.....	3	Physical Education 156B.....	2
Physical Education 192A.....	3	Physical Education 192B.....	3
Physical Education 182B.....	3	Teaching P192C.....	3
Teaching P192B.....	2	Elective.....	3
Elective.....	2		15
	<u>16</u>		

By special arrangement students completing the third year of this course may qualify for the elementary and junior high school special credential in physical education.

PHYSICAL EDUCATION TRAINING CURRICULUM (WOMEN)

SUGGESTED FOUR-YEAR CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF EDUCATION AND TO RECOMMENDATION FOR THE SECONDARY SPECIAL TEACHING CREDENTIAL IN PHYSICAL EDUCATION

<i>First Semester</i>	FRESHMAN YEAR	<i>Second Semester</i>	
Subject A.....		English 1A.....	3
Psychology X.....	1	History (elective).....	3
Chemistry 2A.....	4	Psychology 2.....	3
Commerce 1A.....	3	Chemistry 2B.....	4
History (elective).....	3	Physical Education Practice (72A, 60A, 50A, 76).....	2½
Physical Education 2.....	2		15½
Physical Education Practice (72A, 60A, 50A, 76).....	2½		
	15½		
<i>First Semester</i>	SOPHOMORE YEAR	<i>Second Semester</i>	
English 1B.....	3	Education 130.....	3
Physiology 1.....	3	Philosophy 136A.....	3
Zoology 10.....	3	Zoology 35.....	5
Psychology 30.....	3	Political Science 50.....	3
Physical Education 5.....	1	Physical Education Practice (72B, 51B, 70C, 70B, 61A).....	2½
Physical Education Practice (72C, 60C, 51A, 70A, 75).....	2½		16½
	15½		
<i>First Semester</i>	JUNIOR YEAR	<i>Second Semester</i>	
Education 180.....	2	Elective.....	3
Elective.....	2	Teaching P190B.....	3
Teaching P190A.....	2	Physical Education 121B.....	2
Physical Education 121A.....	2	Physical Education 182A.....	3
Physical Education 149.....	3	Physical Education 190B.....	3
Physical Education 190A.....	3	Physical Education Practice (60D, 61D, 151B, 172B, 61C, 62A).....	2½
Physical Education Practice (60C, 61C, 151A, 172A, 61B, 62A).....	2½		16½
	16½		
<i>First Semester</i>	SENIOR YEAR	<i>Second Semester</i>	
Teaching P192A.....	3	Education 148.....	3
Physical Education 147.....	2	Education 170.....	3
Physical Education 180.....	3	Elective.....	3
Physical Education 182B.....	3	Teaching P192B.....	2
Physical Education 192A.....	3	Physical Education 192B.....	3
Physical Education Practice (161A, 173A).....	2	Physical Education Practice (161B, 173B).....	2
	16		16

By special arrangement students completing the third year of this course may qualify for the elementary and junior high school special credential in physical education.

VIII. 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.

Upper Division Courses.

An upper division course is an advanced course in a department of study that has been pursued in the lower division, or of elementary work in a subject of such difficulty as to require the maturity of upper division students.

2. Courses designated by a double number (i.e., Economics 1A-1B) are continued through two successive semesters. In registering for the course the student will use the first number for the first half-year, and the other number for the second half-year. At the end of each semester 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 work completed.

3. The credit value of each course in semester units is indicated by a numeral in parentheses following the title.

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

5. The numbering system in this Announcement is the same as that used in the announcement of the schools and colleges of the University at Berkeley. Ordinarily, courses numbered from 1 to 99 will be taken in the freshman and sophomore years, and courses numbered from 100 to 199 in the junior and senior years.

6. Whenever Southern Branch courses equivalent to courses given at Berkeley are offered by a department other than the department by which they are offered there (or under another number in the same department) two means of designation are employed:

(a) A sub-caption under the department heading; thus—Paleontology 1 will be found in the Department of Biology.

* The Southern Branch reserves the right to withdraw or modify these courses, or to change the instructors.

(b) An italicized title enclosed in parentheses immediately following the course description; thus—Elementary Food (*Household Science 1B*).

7. Only courses marked "Credit" followed by the capital letter A or B may be counted toward certification recommendations or degree requirements, as follows:

(A) Courses which have been approved as the equivalent of courses in the departments at Berkeley. For the present these courses alone receive full credit toward the degree of Bachelor of Arts or of Science and also (in general) toward the teachers' credentials of the several types, subject in every case to the requirements of the curriculum selected.

(B) Courses which may be counted toward the bachelor's degree in the Teachers College and toward appropriate recommendations for teaching.

Announcement of Courses

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ART

- _____, Professor of the History and Principles of Fine Arts.
NELLIE HUNTINGTON GERE, Associate Professor of Fine Arts.
HELEN CLARK CHANDLER, Assistant Professor of Fine Arts.
LOUISE P. SOOY, Assistant Professor of Fine Arts.
ANNA P. BROOKS, A.B., B.S., Assistant Professor of Fine Arts.
BESSIE E. HAZEN, Ed.B., Instructor in Fine Arts.
ANNITA DELANO, Associate in Fine Arts.
BIRDIE KIRK SMITH, Associate in Fine Arts.
_____, Associate in Fine Arts.
HELEN HOWELL, Associate in Industrial Arts.
OLIVE NEWCOMB, Associate in Industrial Arts.
NATALIE WHITE, B.S., Associate in Industrial Arts.
BELLE H. WHITICE, Associate in Industrial Arts.
BARBARA BROOKS JOHNSON, Associate in Art.

Laboratory Fees.—The fee required for courses 29A, 29B, 134A, 158A, 158B, 169B is 50 cents; for courses 8A, 8B, 168, 198A, 198B is \$1; for courses 19A, 19B, 20A, 20B, 139A, 139B is \$2; for courses 154A, 154B is \$4.50.

Courses 1A and 2A are prerequisite to all other courses in the department except 10A, 20A, 20B—8A, 4A, 12A may be taken as parallel to 1A, 2A.

A major in Art for the A.B. degree is not offered at the Southern Branch of the University. The requirements in preparation for the major in this department at the University of California in Berkeley are as follows:

Art A (2), 1A or 1B (3), 6A-6B (4), 14 (2), 19 (2); Architecture 14A; Philosophy 1A-1B or 3A-3B.

Appreciation and History of Art

1A-1B. (1-1) Yr. (Credit A, B) Tu Th, 12. Associate Professor GERE

1A. Principles of Aesthetics.

1B. Prehistoric and Primitive Art. History of Ancient, Early Mediaeval and Gothic Art.

31A-31B. (1-1) Yr. (Credit A, B) Associate Professor GERE

31A. History of Renaissance Architecture; History of Italian Painting and Sculpture.

31B. History of Spanish, Flemish, Dutch, German, French and American Painting. Modern Painting.

Announcement of the Southern Branch

- 161A-161B. (1-1) Yr. (Credit A, B) Associate Professor GERE
 161A. Mohammedan Art. East Indian, Chinese, Korean and Japanese
 Art.
 161B. American Contributions to Art. European Art Centers.

Art Education

- 10A. Fine Arts Education. (2) Either semester. (Credit B) The STAFF
 18. Organization and Administration of Art Education. (2) II.
 (Credit B) Assistant Professor SOOY
 Prerequisite: senior standing.
 20A-20B. Fine and Industrial Art Education for Kindergarten-Primary
 Teachers. (2-2) Yr. (Credit B) Miss HOWELL
 160A-160B. Principles of Art Education. (2-2) Yr. (Credit B)
 Tu, 3, 4; Th, 3. Assistant Professor BROOKS

Costume

3. Costume Appreciation. (1) II. (Credit B) Assistant Professor SOOY
 Discussion and demonstration of costume and its relation to the
 individual.
 13. Costume Appreciation and Design. (2) II. (Credit B) Miss HAZEN
 For Home Economics students. Appreciation and study of costume
 and original designing.
 103. History of Costume. (1) II. (Credit B) Assistant Professor SOOY
 Resumé of costume from ancient Egyptian to modern times.
 183A-183B. Costume Design. (2-2) Yr. (Credit B)
 Assistant Professor SOOY
 Designing of costumes for modern use, also for pageants, panto-
 mimes and plays.
 Prerequisite 3, 103, 32A, 134A.

Crafts

- 8A-8B. Stage Craft. (1-1) I. (Credit B) Th, 9, 10, 11.
 Misses DELANO, HAZEN, Mrs. SMITH
 Making of working drawings and miniature sets. Construction and
 painting of stage settings. Study of processes used in decorating and
 making costumes.
 9A-9B. Elementary Construction. (2-2) Yr. (Credit B)
 Miss WHITE, Miss WHITICE

- 19A-19B. Pottery. (2-2) Yr. (Credit B) Miss NEWCOMB
Hand building and glazing—use of potter's wheel, making of molds
and casting.
Prerequisite: 2B.
- 29A-29B. Bookbinding. (2-2) Yr. (Credit B) Miss WHITICE
Prerequisite: 9B.
- 39A-39B. Weaving. (2-2) Yr. (Credit B) Miss WHITE
History of weaving and study of materials used. Tapestry and
pattern weaving.
49. Basketry. (2) I. (Credit B) Miss WHITICE
- 69A-69B. Leather. (2-2) Yr. (Credit B) Miss WHITICE
79. Metal. (2) II. (Credit B) Miss WHITICE
Elementary course.
119. Advanced Pottery. (2) II. (Credit B) Miss NEWCOMB
Study of glazes—stacking kiln and firing.
Prerequisite: 19B.
- 158A-158B. Textile Decoration. (1-2) Yr. (Credit B) Miss DELANO
Block-printing, batik and tie dyeing.
Prerequisites: 2B, 8B, 32A.
168. Stage Craft. (1) I. (Credit B) Assistant Professor SOOY
Th, 9, 10, 11.
Principles of art applied to the stage. Technical knowledge neces-
sary to produce pantomimes, pageants and plays.
Prerequisites: 8B, 32B, 156A.
- 198A-198B. Clay Modeling. (1-1) Yr. (Credit B) Miss NEWCOMB
S, 9, 10, 11. Prerequisite: 134A.

Design

- 2A-2B. Theory and Practice of Design. (2-2) Yr. (Credit A, B)
M W F, 8, 9; M W F, 2, 3. The STAFF
- 12A-12B. Lettering. (1-2) Yr. (Credit A, B) Mrs. SMITH
Principles of composition applied to lettering. Study of alphabets
and quick writing for commercial use.
- 32A-32B. Imaginative and Industrial Design. (2-2) Yr. (Credit A, B)
Prerequisite: Art 1B, 2B, 4B. Miss DELANO, Miss WHITE
- 152A-152B. Advanced Design. (2-2) Yr. (Credit A, B) Miss DELANO
Prerequisite: 32B, 134A, 135A.

Drawing and Painting

- 4A-4B. Frechand Drawing (elementary). (2-2) Yr. (Credit A, B)
Assistant Professor CHANDLER, Mrs. SMITH
M W F, 8, 9; M W F, 2, 3.
Principles of perspective. Water color painting.
- 134A-134B. Advanced Drawing and Painting. (2-2) Yr. (Credit A, B)
Assistant Professors CHANDLER, BROOKS
Imaginative figure drawing in preparation for illustration. Rendering in pencil, pen and ink.
Prerequisite: 2B, 4B.
154. Life Class. (2) II. (Credit B) Mrs. SMITH
Prerequisite: junior standing.
164. Life Class. (2) II. (Credit B) Mrs. SMITH

House Design and Decoration

- 16A-16B. (1-1) Yr. (Credit B) Associate Professor GERE, Miss HAZEN
16A. House and Garden Design.
16B. House Furnishing including History of Furniture.
- 156A-156B. Interior Decoration. (2-2) Yr. (Credit B) The STAFF
Practical designing of furniture and details for the home.
Prerequisite: 2B, 4B, 16B.
- 186A-186B. Interior Decoration. (2-2) Yr. (Credit B)
Assistant Professor SOOY
Composition and color harmony.
Perspectives of interiors in various mediums.
Prerequisite: 156B.

Illustration

- 135A-135B. Book Illustration. (2-2) Yr. (Credit B)
Assistant Professor CHANDLER
Prerequisite: 32A, 134A.
- 165A-165B. Commercial Illustration. (2-2) Yr. (Credit B)
Assistant Professor SOOY
Composition plus technical requirements in advertising.
Prerequisite: 134A.
175. Advanced Illustration including Wall Decorations. (2) II (Credit B)
Prerequisite: 135A-135B. Assistant Professor CHANDLER

Landscape

- 137A-137B. Sketching. (1-2) Yr. (Credit B)
Prerequisite: 2B, 4B. Assistant Professors BROOKS, CHANDLER
- 177A-177B. Water-color and Oil Painting. (2-2) Yr. (Credit B)
Prerequisite: 137B. Assistant Professor CHANDLER

BIOLOGY

- LOYE HOLMES MILLER, Ph.D., Professor of Biology.
 BENNETT MILLS ALLEN, Ph.D., Professor of Zoology.
 FRANK E. OLDER, B.S., Assistant Professor of Agricultural Teaching.
 O. L. SPONSLER, Ph.D., Assistant Professor of Botany.
 A. W. BELLAMY, Ph.D., Assistant Professor of Zoology.
 *SARAH ROGERS ATSATT, M.S., Instructor in Biology.
 CARL EPLING, Ph.D., Instructor in Botany.
 GORDON H. BALL, Ph.D., Instructor in Zoology.
 PAULINE KIMBALL, Ph.D., Instructor in Biology.
 A. W. HAUPT, Ph.D., Instructor in Botany.
 RUTH G. PERSONS, A.B., Assistant in Zoology.
 HILDEGARDE HOWARD, A.B., Assistant in Zoology.

Laboratory Fees.—The fee for Physiology 1, 10, is \$2.50; for Bacteriology 10, Zoology 1A, 1B, 4, 103, 105, 106, 112, 116, a deposit of \$5 is required. Of this amount, \$3 is retained as a fee and the balance, after deduction for any breakage, is refunded to the student.

Preparation for the Major.—At the Southern Branch of the University a student may, at present, major in only one of the biological sciences—Zoology. Those wishing to major in other phases of the work included in this department are referred to the Announcement of the colleges 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. Preparation for the Major in Zoology requires Zoology 1A, 1B, and high school Chemistry or Chemistry 1A. French and German are recommended.

The Major.—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.

AGRICULTURE

1. General Horticulture. (3) II. (Credit A, B)

Assistant Professor OLDER, —

Lectures, three hours; laboratory, two hours.

* Absent on leave, 1924-25.

AGRICULTURAL EDUCATION

10. Elements of Agriculture. (3) Either semester. (Credit B)
 Assistant Professor OLDER
 Lectures, three hours; laboratory, two hours.
 Lectures, W, 3; laboratory, M F, 3, 4.
15. Advanced Agriculture and School Gardening. (3) I. (Credit B)
 Prerequisite: Agriculture 10. Assistant Professor OLDER

BACTERIOLOGY

10. General Bacteriology. (3) II. (Credit B) —
 Lectures and laboratory. For home economics students only.

BOTANY

1. Fundamentals of Botany. (3) Either semester. (Credit A, B) —
 M W F, 8.
 Elements of physiology, morphology, and taxonomy. Lectures and quizzes.
- 2A-2B. General Botany. (4-4) Yr. (Credit A, B)
 Tu Th, 1. Assistant Professor SPONSLER, —
 Lectures, two hours; laboratory, six hours. Structure, relationships, origin, and activities of plants.
6. Plant Histology. (3) II. (Credit A, B) Dr. HAUPT
 Lecture, one hour; laboratory, six hours.
 The microscopic structure of the higher plants.
 Prerequisite: Botany 2A-2B.
- 104A-104B. Systematic Botany. (3-3) Yr. (Credit A, B)
 Assistant Professor SPONSLER, —
 Six hours laboratory with informal lectures and field trips to be arranged. Prerequisite: Botany 2A-2B. Limited to twenty students. Designed for botany majors, teachers of nature study, and students of the College of Agriculture.

PALEONTOLOGY

1. General Paleontology. (2) I. (Credit A, B) Professor MILLER
Tu Th, 10.

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 responded to such influences.

PHYSIOLOGY

1. General Human Physiology. (3) I. (Credit A, B) Dr. KIMBALL
Lectures, two hours; laboratory, three hours.
Prerequisite: Chemistry 2A-2B.
10. Physiology and Personal Hygiene. (3) II. (Credit B) Dr. KIMBALL
Lectures, two hours; laboratory, three hours.
Designed for those who plan to teach in the graded schools.

ZOOLOGY

- 1A-1B. General Zoology. (5-5) Yr. (Credit A, B) Dr. BALL
Lectures, Tu Th, 11.
Lectures, two hours; quiz, one hour; laboratory, six hours; one required field trip.
4. Microscopical Technique. (2) II. (Credit A) Miss PERSONS
Laboratory, six hours; assigned readings.
The preparation of animal tissues for microscopical examination.
Prerequisite: Zoology 1A and high school chemistry.
10. General Biology. (3) Either semester. (Credit A, B) —
Lectures, M W, 8, and 1 hour quiz.
An outline of the main facts and principles of animal biology with special reference to heredity and evolution. Lectures, sections, assigned readings, and reports.
12. Nature Study. (3) Either semester. (Credit B) Professor MILLER
M W F, 9; M W F, 11.
Lectures, readings, reports on materials and methods.

35. General Human Anatomy. (5) II. (Credit, A, B) Dr. KIMBALL
Lectures, three hours; laboratory, six hours.
Prerequisite: Sophomore standing; Zoology 1A or Zoology 10 plus
Physiology 1.
103. Experimental Zoology. (2) Either semester. (Credit A, B)
Professor ALLEN
Laboratory hours by arrangement.
Prerequisite: Zoology 1A-1B.
105. Advanced Vertebrate Embryology. (3) I. (Credit A, B)
Lectures, one hour; laboratory, six hours. Professor ALLEN
Prerequisite: Zoology 1A and either 1B or 35, and junior standing.
106. Comparative Anatomy of the Higher Vertebrates. (4) II —
(Credit A, B)
Lectures, two hours; laboratory, six hours.
Prerequisite: Zoology 1A-1B and junior standing.
A study of the structural relationships of the higher vertebrates.
Dissection of the reptile, bird, and mammal.
111. Parasitology. (2) I. (Credit A) Dr. BALL
General discussion of the biological aspects of parasitism and of
the animal parasites of man and the domestic animals.
Prerequisite: Zoology 1A.
112. Advanced Invertebrate Zoology. (4) II. (Credit A, B) Dr. BALL
Lectures, two hours; laboratory and field, six hours.
Morphology, habits, habitats, and life histories of both marine and
fresh water invertebrates with especial reference to local faunas.
Prerequisite: Zoology 1A; Zoology 1B recommended.
113. Zoology of the Higher Vertebrates. (4) II. (Credit A, B)
Professor MILLER
Lectures, two hours; laboratory and field, six hours.
Emphasis will be placed on the habits, distribution, and ecology of
reptile, bird, and mammal faunas of California.
Prerequisite: Zoology 1A-1B.

CHEMISTRY

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

WILLIAM R. CROWELL, Ph.D., Assistant Professor of Chemistry.

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

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

MAX S. DUNN, Ph.D., Assistant Professor of Biochemistry.

RUSSELL W. MILLAR, Ph.D., Instructor in Chemistry.

JAMES B. RAMSEY, Ph.D., Instructor in Chemistry.

Laboratory Fees—

<i>Courses</i>	<i>Deposit</i>	<i>Maximum Returnable</i>
2A, 2B	\$12.00	\$5.00
10, 107	13.00	6.00
5, 6A, 6B, 120	17.00	5.00
1A, 1B	17.50	5.00
111	23.00	5.00
9	28.00	10.00

Major in the College of Letters and Science. (a) *Preparation in the Lower Division.*—The minimum requirement is Chemistry 1A-1B (10), which must be passed with a grade of C or better before any further work in chemistry is taken; Physics 2A-2B or 1A-1B (6); trigonometry, Mathematics 3A-3B (6), and a reading knowledge of German. The student is recommended to take a second course in chemistry in the lower division and additional work in physics (4A-4B) and in mathematics (4A-4B) either in the lower division or in the upper division. The department will decide whether a student will be permitted to make chemistry his major on the basis of the student's record in the lower division. (b) *Upper Division.*—All units in chemistry in excess of fourteen are counted as upper division units when taken in the upper division. The minimum requirement for the major is: quantitative analysis 6A-6B (6) or 5 (3), organic chemistry 8 and 9 (6), physical chemistry 110 (3), 111 (4), advanced inorganic chemistry 120 (3). The remainder of the the twenty-four required upper division units may be taken in chemistry or allied subjects in accordance with some definite plan approved by the Chemistry Department.

1A-1B. General Chemistry. (5-5) Yr. (Credit A, B)

Professor MORGAN, Dr. RAMSEY and Staff

Lectures: M W F, 10 (for those beginning in September; Tu Th S, 10 (for those beginning in January).

Both halves given each semester.

Lectures or recitations, three hours; laboratory, six hours.

Required for Colleges of Engineering, Chemistry, Agriculture, and of premedical students and chemistry majors.

Prerequisite: high school chemistry, or physics and trigonometry.

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

Assistant Professors STONE, DUNN and Staff

Lectures: M W F, 11.

Both halves given each semester.

Lectures or recitations, three hours; laboratory, three hours.

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.

No prerequisite; high school chemistry recommended.

5. Quantitative Analysis. (3) Either semester. (Credit A, B)

Lecture, Th, 11.

Assistant Professor CROWELL

A course in gravimetric and volumetric analysis, shorter than 6A-6B.

Required of petroleum engineers and of sanitary and municipal engineers.

Prerequisite: Chemistry 1A-1B.

6A-6B. Quantitative Analysis. (3-3) Yr. (Credit A, B)

Lecture, Tu, 11.

Assistant Professor CROWELL

Required of economic geologists and College of Chemistry students.

Prerequisite: Chemistry 1A-1B.

8A-8B. Elementary Organic Lectures. (3-3) Yr. (Credit A, B)

M W F, 9.

Professor MORGAN

The first half of this course is required of premedical students, sanitary and municipal engineers, petroleum engineers, and College of Chemistry students.

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

9. Elementary Organic Laboratory. (3) II. (Credit A, B)

Assistant Professor ROBERTSON.

Required of petroleum engineers, premedicals, and College of Chemistry students.

Prerequisite: Chemistry 8A.

10. Organic and Food Chemistry. (4) I. (Credit B)
M W F, 8. Assistant Professor ROBERTSON
Lectures or recitations, three hours; laboratory, three hours.
Required of home economics majors.
Prerequisite: Chemistry 1A-1B, or 2A-2B.
107. Biological Chemistry. (4) (Credit B) Assistant Professor DUNN
Lectures or recitations, three hours; laboratory, three hours.
Prerequisite: Chemistry 8A and 9, or 10.
110. Physical Chemistry. (3) I. (Credit A, B) M W F, 10. Dr. MILLAR
Prerequisite: Chemistry 5 or 6A; Physics 1A-1B or 2A-2B.
Lectures and problems. Required for all later work in physical
chemistry.
- 110B. Advanced Physical Chemistry. (3) II. (Credit A, B) Dr. MILLAR
Prerequisite: Chemistry 110.
Lectures and problems. A continuation of course 110.
111. Physical Chemistry—Laboratory. (4) II. (Credit A, B) Dr. MILLAR
Prerequisite: Chemistry 110 and calculus.
Physico-chemical problems and measurements.
120. Advanced Inorganic Chemistry. (3). (Credit A, B) —
Prerequisite: Chemistry 6A-6B and 110.
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.

CLASSICAL LANGUAGES

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

EDWIN MOORE RANKIN, Ph.D., Lecturer in Greek.

FREDERICK MASON CAREY, Ph.D., Instructor in Latin and Greek.

*Latin***PREPARATION FOR THE MAJOR**

Required: 18 units of Latin, which may be distributed as either 6, 9, or 12 units in the high school or 12, 9, or 6 in college.

Recommended: as much work as may be possible in Greek, ancient history, French, or German.

THE MAJOR

The requirements for the major will be met by the completion of the following curriculum, plus 6 units of approved courses in upper division Greek, English, French, German, Spanish, philosophy, ancient or medieval history.

LATIN

- C. Third Year Latin: Ciceronian Prose. (3) II. (Credit A, B)
M W F, 10. Assistant Professor MCKINLAY
- D. Fourth Year Latin: Augustan Poetry. (3) I. (Credit A, B)
M W F, 10. Assistant Professor MCKINLAY
Open to those who have had two years of high school Latin.
1. Cicero: De Senectute; Pliny: Letters. (3) I. (Credit A, B)
M W F, 12. Assistant Professor MCKINLAY
Open to those who have had four years of high school Latin.
- 3A-3B. Latin Prose Composition. (1-1) Yr. (Credit A, B) Dr. CAREY
Tu, 1. This course may be taken in successive years for credit.
Prerequisite: Three or four years of high school Latin.
5. Horace: Odes and Epodes. (3) II. (Credit A, B)
W M F, 2. Assistant Professor MCKINLAY
This course follows Latin 1.

102. Catullus and Livy. (3) I. (Credit A, B) M W F, 10. Dr. CAREY
Prerequisite: Latin 5.

104A-104B. Latin Composition. (1-1) Yr. (Credit A, B) Dr. CAREY
Tu, 10. Prerequisite: Latin 3A-3B.

106. Tacitus and Plautus. (3) II. (Credit A, B) M W F, 10. Dr. CAREY
Prerequisite: Latin 102.

118A*. Tacitus: Histories. (2) II. (Credit A, B)
Assistant Professor MCKINLAY

120*. Martial and Juvenal. (2) I. (Credit A, B)
Assistant Professor MCKINLAY

125. Lucretius. (3) I. (Credit A, B) Assistant Professor MCKINLAY
M W F, 2.

191. Cicero: Letters. (3) II. (Credit A, B)
M W F, 12. Assistant Professor MCKINLAY
Prerequisite to Latin 118A, 120, 125, and 191: Latin 102 and 106.

* Latin 120 and 118A, and Latin 125 and 191 are given in alternate years, Latin 125 and 191 being offered in 1924-1925.

GREEK

A major in Greek for the A.B. degree is not offered at the Southern Branch of the University. The requirements in preparation for the major in this department at the University of California in Berkeley are as follows:

Required: either courses 1, 2, and 3 (12-14 units); or matriculation subject 5a, course 3 or equivalent, and either 101 or 102 (14 units).

Recommended: matriculation subject 4b (Ancient History); Latin 1 and 5; Philosophy 3A or 4A; General Literature 1A-1B.

1AB-2AB. Greek for Beginners, Attic Prose and Homer. (5-5) Yr.
(Credit A, B) Dr. CAREY
M Tu W Th F, 9.

- 3A-3B. Prose Composition. (1-1) Yr. (Credit A, B) Th, 1. Dr. BANKIN
101. Introduction to Plato. (3) II. (Credit A, B) Dr. BANKIN
Prerequisite: Greek 103.
- 102*. Greek Poetry. (3) II. (Credit A, B) Dr. BANKIN
Prerequisite: Greek 113.
103. Historical Prose: Herodotus. (3) I. (Credit A, B) Dr. BANKIN
Prerequisite: Greek 1AB-2AB.
- 104*. Greek Drama: Euripides and Aristophanes. (3) I. (Credit A, B) Dr. BANKIN
Prerequisite: Greek 101, 103.
- 105*. Greek Drama: Sophocles and Aeschylus. (3) II. (Credit A, B) Dr. BANKIN
Prerequisite: Greek 104.
- 113*. Demosthenes: Public Orations. (3) I. (Credit A, B) Dr. BANKIN
Prerequisite: Greek 101, 103.

* Greek 104 and Greek 105, and Greek 102 and Greek 113 are given in alternate years, Greek 102 and Greek 113 being offered in 1924-25.

ECONOMICS

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

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

EARL J. MILLER, Ph.D., Assistant Professor of Economics.

———, Instructor in Economics and Accounting.

———, Associate in Commerce.

EVA M. ALLEN, Associate in Commercial Practice.

ESTELLA B. PLOUGH, Associate in Commercial Practice.

W. T. McGRATH, A.B., Associate in Economics.

HERMAN HILMER, Ph.D., Lecturer in Economics.

Fees.—Economics A, \$6.00; Economics B, \$5.00; Economics 16, \$2.50.

Preparation for the Major.—Required: Economics 1A-1B, and at least one of the following: Political Science 1A-1B, History 4A-4B, History 8A-8B, or Philosophy 3A-3B.

The Major.—Required: 18 upper division units in economics including course 100, and six upper division units in history, political science, or philosophy, the programme to be approved by a departmental adviser.

LOWER DIVISION COURSES

1A-1B. Principles of Economics. (3-3) Yr. (Credit A, B)

Assistant Professor MILLER and STAFF

Lectures, Tu Th, 9 and 1 hour quiz; Tu Th 11 and 1 hour quiz.

14A-14B. Principles of Accounting. (3-3) Yr. (Credit A, B)

Associate Professor NOBLE, Assistant Professor FRISBEE

Tu Th, 9 and 2 hours laboratory; Tu Th 10 and 2 hours laboratory.

UPPER DIVISION COURSES

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

100. Advanced Economic Theory. (2) Either semester. (Credit A)

Dr. HILMER

131. Elementary Statistics. (3) Either semester. (Credit A)

Assistant Professor FRISBEE

Methods and sources of statistical data. Use of tables, graphs and charts.

140. Labor Economics. (2) Either semester. (Credit A)

Assistant Professor MILLER

Social background of labor legislation; trade unionism; labor administration; personnel problems.

150. Accounting Practice. (3) I. (Credit A, B)
(Not offered in 1924-25.) Associate Professor NOBLE
151. Advanced Accounting. (3) II. (Credit A, B)
(Not offered in 1924-25.) Assistant Professor FRISBEE
152. Cost Accounting. (3) I. (Credit A, B) Associate Professor NOBLE
Prerequisite: Economics 14A-14B.
153. Auditing. (3) II. (Credit A, B) Assistant Professor FRISBEE
Prerequisite: Economics 14A-14B.
- 160A-160B. Money and Banking. (3-3). (Credit A, B) Dr. HILMER
First semester: commercial banking and technique of banking.
Second semester: socio-economic problems bound up with the present
money and credit organization.
161. Corporation Finance. (3) I. (Credit A) Dr. HILMER
162. Public Finance. (2) II. (Credit A) Dr. HILMER
Collection and disbursement of revenue by federal, state and local
governments. Taxation problems.
170. Principles of Marketing. (3) II. (Credit A, B) —
Channels of distribution; functions of middlemen; selling policies;
creation of markets; distribution costs; price maintenance.
185. Foreign Trade. (3) I. (Credit A) —
190. Business Organization. (3) I. (Credit A, B)
Associate Professor NOBLE
191. Business Administration. (3) II. (Credit A, B)
Associate Professor NOBLE

COMMERCE (TEACHERS COLLEGE)

- A. Typing. (No credit) Tu Th, 10. Mrs. ALLEN
- B. Shorthand. (No credit) M W F, 10. Mrs. ALLEN
16. Typing. (2) Either semester. (Credit B) Tu Th, 2 Mrs. ALLEN
Prerequisite: course A or its equivalent.
17. Shorthand. (3) II. (Credit B) M W F, 10. Mrs. ALLEN
Prerequisite: course B or its equivalent.
- 18A-18B. Penmanship. (2-2) Yr. (Credit B) Mrs. PLOUGH
Tu Th, 10; Tu Th, 11; Tu Th, 1; Tu Th, 2.
198. Methods in Commercial Education. (3) II. (Credit B)
Associate Professor NOBLE and Staff

EDUCATION

- ERNEST CARROLL MOORE, Ph.D., LL.D.,** Professor of Education and Director of the Southern Branch.
- CHARLES WILKIN WADDELL, Ph.D.,** Professor of Education and Director of the Training Schools.
- MARVIN L. DARSIE, M.A.,** Associate Professor of Education and Dean of the Teachers College.
- KATHERINE L. McLAUGHLIN, M.A.,** Associate Professor of Primary Education.
- HARVEY L. EBY, Ph.D.,** Associate Professor of Rural Education.
- ETHEL I. SALISBURY, M.A.,** Associate Professor of Elementary Education.
- WILLIAM A. SMITH, Ph.D.,** Assistant Professor of Education.
- CLARENCE HALL ROBISON, Ph.D.,** Assistant Professor of Education and University Examiner.
- FREDERICK P. WOELLNER, Ph.D.,** Lecturer in Education.
- JUNIUS L. MERIAM, Ph.D.,** Lecturer in Education.
- J. HAROLD WILLIAMS, Ph.D.,** Lecturer in Education.
- BENJAMIN W. JOHNSON,** Lecturer in Education and Supervisor of Classes for the Training of Trade and Industrial Teachers.
- HELEN M. CHRISTIANSEN, Ph.B.,** Associate in Primary Education.

A major in Education for the A.B. degree is not offered at the Southern Branch of the University. The requirements in preparation for the major in this department at the University of California in Berkeley are as follows:

Psychology 2A and one of the following year courses: Philosophy 3A-3B, Zoology 10, Physiology 1 or 2, Political Science 1A-1B or Economics 1A-1B.

11. Principles of Teaching. (3) Either semester. (Credit B)
 Tu Th S, 8; Tu Th S, 9; Tu Th S, 10; M W F, 3.
 Assistant Professor ROBISON and STAFF
 Prerequisite: Psychology 2.
21. Introductory Kindergarten-Primary Education. (3) I. (Credit B)
 Tu Th S, 9; Tu Th S, 10. Associate Professor McLAUGHLIN
101. History of Education. (3) II. (Credit A, B)
 Associate Professor DARSIE
- 124A-124B. Kindergarten-Primary Curricula and Methods. (3-3)
 (Credit B) M W F, 9. Associate Professor McLAUGHLIN
 Prerequisite: Psychology 2.

126. History of Kindergarten and Primary Education. (3) I. (Credit B)
Associate Professor MCLAUGHLIN
128. Comparative Study of Primary Education. [Formerly numbered 151.] (3) I. (Credit B)
Associate Professor MCLAUGHLIN
129. Kindergarten-Primary Supervision. [Formerly numbered 153.]
(3) II. (Credit B)
Associate Professor MCLAUGHLIN
130. Principles of Elementary Education. [Formerly numbered 150.]
(3) II. (Credit B)
Assistant Professor ROBISON
A course designed especially for candidates for the junior high school and secondary special credentials who wish to qualify for the general elementary credential.
131. The Administration of a School. (3) I. (Credit B)
Associate Professor DARSIE
The technique of elementary school administration. Record keeping, classification and promotion of pupils, health supervision, problems of discipline, educational guidance.
132. Introduction to Educational Measurement. [Formerly numbered 142.] (3) Either semester. (Credit B)
Dr. WILLIAMS
M W F, 8; Tu Th S, 8; Tu Th S, 9.
Prerequisite: Education 11 or 21.
133. Educational Diagnosis. [Formerly numbered 186.] (3) II.
(Credit B) M W F, 4.
Associate Professor DARSIE
Prerequisite: Education 132.
The use of standard tests and elementary statistical technique in problems of school, class and individual diagnosis.
139. Organization and Administration of the Elementary Curriculum.
(3) II. (Credit B)
Dr. MERIAM
Prerequisites: Education 11 and Psychology 30.
148. Administration of Public Education with Special Reference to California. [Formerly numbered 140.] (3) Either semester. (Credit A, B)
M W F, 9; M W F, 2.
Associate Professor EBY, Assistant Professor SMITH

149. Supervision of Teaching. [Formerly numbered 195.] (2) I.
(Credit B) W, 4, 5. Professor WADDELL
Designed especially for principals, supervisors, training teachers
and those preparing for supervision. Prerequisite: Two or more years
of teaching experience.
155. Rural Society and Education. (3) Either semester. (Credit A, B)
M W F, 9. Associate Professor EBY
156. Rural School Organization and Administration. (3) I. (Credit B)
M W F, 11. Associate Professor EBY
Prerequisite: Education 155.
157. Rural School Supervision. (3) II. (Credit B)
Prerequisite: Education 156. Associate Professor EBY
160. Vocational Education. [Formerly numbered 165.] (3) I.
(Credit B) Mr. JOHNSON
166. Vocational and Educational Guidance. (3) II. (Credit B) —
167. Problems in Part-Time Education. (3) II. (Credit B)
Mr. JOHNSON
170. Principles of Secondary Education. [Formerly numbered 178.]
(3) Either semester. (Credit A, B) Assistant Professor SMITH
M W F, 4.
172. The Junior High School. [Formerly numbered 180B.] Either
semester. (3) (Credit B) M W F, 10. Assistant Professor SMITH
Prerequisite: Education 170.
180. Education for Citizenship. [Formerly numbered 114.] (2) Either
semester. (Credit A, B) Tu Th, 2. Dr. WOELLNER
182. Problems of Americanization. [Formerly numbered 162.] (3) II.
(Credit B) Dr. WOELLNER
Racial and cultural backgrounds of various immigrant groups, with
resulting problems for education.
183. Educational Sociology. [Formerly numbered 175.] (3) I.
(Credit A, B) Associate Professor DARSIE
An analysis of educational practice in the light of modern social
needs.

ENGLISH

- FREDERICK T. BLANCHARD, Ph.D., Professor of English.
 SIGURD BERNHARD HUSTVEDT, Ph.D., Associate Professor of English.
 HERBERT F. ALLEN, Ph.D., Assistant Professor of English.
 LLEWELLYN M. BUELL, Ph.D., Assistant Professor of English.
 PERCY H. HOUSTON, Ph.D., Assistant Professor of English.
 ALFRED E. LONGUEIL, Ph.D., Assistant Professor of English.
 LILY B. CAMPBELL, Ph.D., Assistant Professor of English
 CHARLES A. MARSH, B.S., Assistant Professor of Argumentation.
 ALICE O. HUNNEWELL, Instructor in English.
 EVALYN A. THOMAS, B.L.I., Instructor in English.
 MARGARET S. CARHART, Ph.D., Instructor in English.
 HARRIET MACKENZIE, M.A., Instructor in English.
 CARL S. DOWNES, Ph.D., Instructor in English.
 B. H. BISSELL, Ph.D., Instructor in English.
 ——— ———, Instructor in English.
 W. H. VEATCH, A.B., Ph.M., Instructor in Public Speaking.
 CAROLINE I. TOWNSEND, M.A., Associate in English.
 KATHERINE COLLINS, M.A., Associate in English.
 LAWRENCE C. LOCKLEY, M.A., Associate in English.
 LU EMILY PEARSON, M.A., Associate in English.
 J. F. MCGREW, A.B., Associate in Public Speaking.
 PRINCESS SANTA BORGHESI, Ph.D., Lecturer.

INFORMATION FOR LOWER DIVISION STUDENTS

Students must have passed Subject A before taking any course in English or Public Speaking.

PREREQUISITE FOR THE MAJOR

English: 12 units (English 1A-1B and English 56A-56B).

INFORMATION FOR UPPER DIVISION STUDENTS

THE MAJOR: ENGLISH

Students who wish to make English their major subject must have completed English 1A-1B and English 56A-56B. They must also meet the following conditions:

1. Students must present, in the first term of the junior year, a programme to be examined and approved by a departmental adviser to upper division students. The programme, however, may be amended from time to time after consultation with the department representative.

2. The programme must cover 24 units of upper division courses, including the restricted junior course, to be taken in the junior year, and the restricted senior course, to be taken in the senior year.

3. The student must pass at the end of the senior year the comprehensive English Final Examination.

PUBLIC SPEAKING

A major in Public Speaking for the A.B. degree is not offered at the Southern Branch of the University. The requirements in preparation for the major in this department at the University of California in Berkeley are as follows:

Twelve units chosen from Public Speaking 1A-1B, 2A-2B, 5A-5B.

LOWER DIVISION COURSES

FRESHMAN COURSES

1A-1B. First Year Reading and Composition. (3) Either semester.
(Credit A, B)

Professor BLANCHARD, Associate Professor HUSTVEDT, Assistant Professors ALLEN, BUELL, HOUSTON, LONGUEIL, CAMPBELL, Dr. CARHART, Miss MACKENZIE, Dr. DOWNES, Miss COLLINS, Mr. LOCKLEY, Mrs. PEARSON.

Open to all students who have received a passing grade in Subject A. M W F, 8; M W F, 9; M W F, 10; M W F, 11; M W F, 12; M W F, 2; M W F, 3; Tu Th S, 8; Tu Th S, 9; Tu Th S, 10; Tu Th S, 11; Tu Th S, 12.

1C. English in Business Practice. (3) Either semester. (Credit A, B)
M W F, 9; M W F, 11. Mr. LOCKLEY

Prerequisite: 1A.

Designed for students in Commerce.

4A-4B. World Literature. (1-1) Yr. (Credit A, B) W, 3.

Professor BLANCHARD

This course is given in series, each of which may be taken once.

SOPHOMORE COURSES

NOTE.—Courses 52 and 56, having material in common, cannot both be taken, in whole or in part, for credit.

- 51A-51B. Writing Based on Nineteenth Century Masterpieces. (3-3) Yr.
(Credit A, B) M W F, 2. Dr. DOWNES
- 52A-52B. Types of English Literature. (3-3) Yr. (Credit A, B)
M W F, 12. Assistant Professor CAMPBELL
- 56A-56B. Survey of English Literature. (3-3) Yr. (Credit A, B)
Associate Professor HUSTVEDT, Assistant Professors ALLEN,
HOUSTON, LONGUEIL, CAMPBELL, DR. CARHART.
M W F, 10; Tu Th S, 10.

UPPER DIVISION COURSES

Group I—Unrestricted Courses

(Open to all students in the upper division; enrollment not limited.)

- 153A-153B. Introduction to the Study of Poetry. (3-3) Yr. (Credit A, B)
M W F, 10. Professor BLANCHARD
This course is designed to afford an introduction to the principles of criticism. It is offered both for those who desire a general acquaintance with poetry and for those who intend to select a European literature as a major. Lectures, reading of masterpieces in translation, frequent examinations.
- 110A. English Diction and Style. (3) I. Associate Professor HUSTVEDT
- 114A-114B. English Drama from the Beginning to 1900. (3-3) Yr.
(Credit A, B) Assistant Professors BUELL, CAMPBELL
- 121A-121B. Nineteenth Century Poetry. (3-3) Yr. (Credit A, B)
M W F, 8. Assistant Professor LONGUEIL
- 125C-125D. The English Novel. (3-3) Yr. (Credit A, B) M W F, 9.
Professor BLANCHARD
- 125G-125H. Nineteenth Century Prose. (3-3) Yr. (Credit A, B)
M W F, 12. Assistant Professor HOUSTON
140. Italian Writers and Writings. (2) II. (Credit A, B)
Dr. SANTA BORGHESE
A survey of Italian literature from its beginning in Dante, Petrarch and Boccaccio to the present day.

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. (Credit A, B)
Professor BLANCHARD, Associate Professor HUSTVEDT, Assistant
Professor ALLEN.
M W F, 12; M W F, 2.

B. The Senior Course

(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.

Literary Problems.

Students should enroll under one of the following numbers:

Problems of Critical Theory.

- 151H. Tragedy. (3) Either semester. (Credit A, B)

Assistant Professor ALLEN

M W F, 2.

Investigation of Individual Authors.

- 151L. Chaucer. (3) Either semester. (Credit A, B) M W F, 12.

Associate Professor HUSTVEDT, Assistant Professor LONGUEIL

Courses in Composition

- 106K. Advanced Composition. (3) Either semester. (Credit A, B)

Associate Professor HUSTVEDT, Assistant Professors ALLEN,
HOUSTON, LONGUEIL.

Open only to upper division students who have the consent of the instructor.

Teachers' Courses

- 12A. Reading, and the Teaching of English. (2) Either semester.
(Credit B) Mrs. HUNNEWELL, Miss TOWNSEND
Tu Th, 10; Tu Th, 11; Tu Th, 12; Tu Th, 3.
- 12B. Literature for the Primary Grades. (2) Either semester.
(Credit B) Tu Th, 9; Tu Th, 10; Tu Th, 3. Miss MACKENZIE
14. Literature for the Middle Grades. (3) II. (Credit B)
M W F, 9. Miss MACKENZIE
130. American Literature. (3) Either semester. (Credit B)
M W F, 3. Dr. DOWNES
161. Junior High School English. (2) I. (Credit B) Miss MACKENZIE
Tu Th, 2.

PUBLIC SPEAKING

- 1A-1B. Elements of Public Speaking. (3-3) Yr. (Credit A, B)
M W F, 9; M W F, 11; Tu Th S, 8; Tu Th S, 10.
Assistant Professor MARSH, Mr. VEATCH, Mr. MCGREW
- 2A-2B. The Fundamentals of Expression and Interpretation. (3-3) Yr.
(Credit A, B) M W F, 9. Mrs. HUNNEWELL, Miss THOMAS
- 5A-5B. Principles of Argumentation. (3-3) Yr. (Credit A, B)
M W F, 10. Assistant Professor MARSH, Mr. VEATCH
Prerequisite: Public Speaking 1A-1B and English 1A-1B and the
consent of the instructor.
- 10A-10B. Dramatic Interpretation. (3-3) Yr. (Credit A, B)
M W F, 2. Miss THOMAS
- 15B. The Art of Story Telling. (3) Either semester. (Credit B)
Tu Th 8; Tu Th, 11; Tu Th, 2.
Mrs. HUNNEWELL, Miss TOWNSEND
- 110A-110B. Third-Year Public Speaking. (3-3) Yr. (Credit A, B)
Prerequisite: course 5A-5B. Assistant Professor MARSH
(A) Oral argumentation and debate. Preparation of briefs; presen-
tation of arguments. (B) Practice in extemporaneous speaking; the
preparation of the occasional address. Open to students selected from
110A.
- 111A-111B. Literary Interpretation. (3-3) Yr. (Credit A, B)
Prerequisite: course 2A-2B. Mrs. HUNNEWELL, Miss THOMAS
The study of typical literary forms such as the ballad, the lyric,
the essay, and the short story.

FRENCH

- ALBERT LEON GUÉRARD, Ph.D., Professor of French.
*HENRY RAYMOND BRUSH, Ph.D., Professor of French.
ALEXANDER GREEN FITTE, Ph.D., Assistant Professor of French.
NEMOURS HONORE CLEMENT, Ph.D., Assistant Professor of French.
L. F. D. BRIOIS, A.B., Associate in French.
MADELEINE L. LETESSIER, A.B., Associate in French.
EVELYN LESSLIE LOUGHEAD, M.A., Associate in French.
A. G. W. CERP, M.A., Litt.D., Honorary Lecturer in French.

PREPARATION FOR THE MAJOR

French A, B, 1A-1B, or their equivalents. History 4A-4B, Philosophy 3A-3B, Latin and another modern language are strongly recommended.

THE MAJOR

Required: French 101A-101B, 109A-109B, 112A-112B.

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

Honors.—To be admitted to candidacy the student must have creditably completed his lower division work in French. The candidate's work in French for each half-year must average at least the grade of B; 50 per cent of his grades in other courses must be above C. To receive honors the candidate must have completed the requirements for the major.

Each instructor will devote special attention to the honors candidates who are enrolled in his classes.

LOWER DIVISION COURSES

The ordinary prerequisites for each of the lower division courses are listed under the description of these courses. Students whose high school preparation has given them special advantages may, upon examination, be permitted a more advanced programme; or, such students may be transferred to a more advanced course by recommendation of the instructor.

* Absent on leave, first half-year.

- A. Elementary French. (5) Either semester. (Credit A, B) The STAFF
M Tu W Th F, 9; M Tu W Th F, 10; M Tu W Th F, 12; M Tu W
Th F, 3.
Students entering with one year of high school French will register
in A and will receive 2 units of credit in addition to the matriculation
credits.
- B. Elementary French. (5) Either semester. (Credit A, B) The STAFF
M Tu W Th F, 12; M Tu W Th F, 2.
Prerequisite: course A or two years of high school French.
- C. Intermediate French. (3) Either semester. (Credit A, B)
Tu Th S, 8; M W F, 2. Assistant Professor CLEMENT in Charge
Prerequisite: course B or three years of high school French.
- D. Intermediate French. (3) Either semester. (Credit A, B)
M W F, 8; M W F, 11. Assistant Professor CLEMENT in Charge
Prerequisite: course C or four years of high school French.
- 1A-1B. Intermediate French. (3-3) (Credit A, B) M W F, 11.
Assistant Professor FITE
Prerequisite: course B with grade A or B; students having three
years of high school French and a satisfactory record may be admitted
to this course with the permission of the department. This course is
intended for students who make French their major subject. It is
conducted in French.
- 5A-5B. Advanced French. (3-3) Yr. (Credit A, B)
M W F, 9; M W F, 2. Assistant Professor CLEMENT
Thorough review of the essentials of grammar; composition and
reading of modern French authors.
Prerequisite: course D or 1B.
- 5AB. Advanced French. (5) II. (Credit A, B) Professor BRUSH
Prerequisite: Course D or 1B with grade of A, B or C.
6. Scientific and Technical French. (2-2) Yr. (Credit A, B) —
Designed especially to enable students to read scientific books or
periodicals. Not offered in 1924-25.
Prerequisite: French A, B or their equivalent.

UPPER DIVISION COURSES

The prerequisite to all upper division courses is 16 units in the lower division, including either 1A-1B (or D with a grade of A or B) or 5A-5B (or 5AB).

101A-101B and 109A-109B are ordinarily prerequisite to other upper division courses, except that 107A-107B may be taken concurrently with either or both of these courses.

- 101A-101B. Composition, Oral and Written. (3-3) Yr.
(Credit A, B) M W F, 10. Assistant Professor FITE
- 107A-107B. Typical Comedies as Documents of Spoken French. (2-2) Yr.
(Credit A, B) Assistant Professor FITE
Prerequisite: an average grade higher than C in French courses.
- 109A-109B. A Survey of French Literature and Culture. (3-3) Yr.
(Credit A, B) M W F, 12. Professor GUERARD
(A) The Renaissance and the Seventeenth Century. (B) The Eighteenth Century and the Dawn of Romanticism.
- 112A-112B. The Nineteenth Century. (2-2) Yr. (Credit A, B)
Tu Th, 1. Professor GUERARD
Prerequisite: 16 to 24 units of French according to grade.
(A) From Chateaubriand to Balzac. (B) From Balzac to Anatole France. Analysis of works and collateral readings from the masters of French criticism.
- 114A-114B. Contemporary French Literature from 1885 to the Present.
(2-2) Yr. (Credit A, B) Assistant Professor FITE
- 120A-120B. The Seventeenth Century. (2-2) Yr. (Credit A, B)
Tu Th, 2. Assistant Professor CLEMENT
(A) Corneille, Racine, Descartes, Pascal and Bossuet. (B) Molière, Boileau, La Fontaine, La Bruyère and La Rochefoucauld.
- 130A-130B. Grammar, Composition and Style. (2-2) Yr.
(Credit A, B) Assistant Professor CLEMENT
Practice in oral and written composition based on selected models.
Prerequisite: an average grade higher than C in French courses.
- 140A-140B. French Civilization. (2-2) Yr. (Credit A, B)
Professor GUERARD
190. Course for Teachers. (2) II. (Credit A, B) Professor BRUSH
Prerequisite: 16 units of freshman and sophomore work, or equivalent; French 101A-101B and 109A-109B, the latter being permitted concurrently.

GEOGRAPHY

GEORGE McCUTCHEM MCBRIDE, Ph.D., Associate Professor of Geography.

MYRTA Lisle MCCLELLAN, B.S., Assistant Professor of Geography.

———, Instructor in Geography.

RUTH EMILY BAUGH, A.B., Associate in Geography.

FORD ASHMAN CARPENTER, LL.D., D.Sc., Lecturer in Meteorology.

PREPARATION FOR THE MAJOR

Required: Geography 1A, 3, Geology 1C, 2C.

THE MAJOR

A major in Geography for the A.B. degree is not offered at the Southern Branch.

1A. Fundamentals of Modern Geography. (3) Either semester.

(Credit A, B)

The STAFF

M W F, 8; M W F, 9; M W F, 2; Tu Th S, 10; Tu Th S, 11.

Underlying geographic influences which control life on the earth; the effect of environment upon the activities of man; various forms of geographic environment and a study in detail of type regions; varied map study; especial emphasis upon the achievements of men in mastering handicaps of environment.

2. Natural Regions of the World. (3) Either semester.

The STAFF

(Credit A, B)

Prerequisite: Geography 1A.

A regional introduction to the study of world geography, with wide application of the principles of human geography; systematic regional map studies are followed.

3. Elements of Meteorology. (3) I. (Credit A, B)

A study of the earth's atmosphere and the changes in it which produce our weather; the making and recording of meteorological observations; practical work with meteorological instruments; study of weather maps; lectures, recitations, and laboratory work.

4. Map Construction, Reading, and Interpretation. (2) II. (Credit A, B)
Prerequisite: Geography 1A. —

The course is concerned with the methods of making maps, map projections, scale; representation of relief, hydrographic conditions, cultures, and other geographic data; the interpretation of the various types of maps.

5. Introduction to Economic Geography. (3) Either semester.
(Credit A, B) Associate Professor McBRIDE
Tu Th S, 10.

Prerequisite: Geography 1A or equivalent preparation.

A study of the geographic basis of production and exchange, particularly in the development and localization of industries and in the character and direction of trade.

- 7A. Applied Meteorology: Weather Science in Relation to Aeronautics and Industry. (1) I. (Credit A, B) Tu, 12. Dr. CARPENTER

- 7B. Applied Meteorology: Weather Science in Relation to Agriculture and Engineering. (1) I. (Credit A, B) Tu, 1. Dr. CARPENTER

113. Climatology. (2) II. (Credit A, B) —

Prerequisite: Geography 1A or 1B or 3.

A study of the underlying principles of climatic phenomena, of the features which characterize the climates of different regions, and of the influence of climatic conditions upon the life of plants, animals, and the human race.

121. Geography of North America. (2) I. (Credit B) Miss BAUGH
Tu Th, 12.

Prerequisite: Geography 1A or Geology 1C.

A study of the continent of North America, based upon the several natural regions; the topography, climate, and natural resources in their relation to man and to the distribution of population and the localization of industries.

122. Geography of Europe. (2) II. (Credit B) Miss BAUGH
Tu Th, 12.

Prerequisite: Geography 1A or Geology 1C.

The importance of the geographic environment in the development and present status of the leading countries of Europe: the relations and interactions, socially and economically, among the various groups.

123. Geography of Latin America. (2) I. (Credit A, B)
 Tu Th, 12. Associate Professor MCBRIDE
 Prerequisite: Geography 1A or Geology 1C.
 This course aims to ascertain the physical conditions characterizing the countries of Latin America, particularly in their relation to the life of the inhabitants.
124. Geography of Asia. (2) II. (Credit A, B)
 Assistant Professor MCCLELLAN
 Prerequisite: Geography 1A or Geology 1C.
 A study of the geographic problems which determine the social and economic conditions of the leading countries of Asia.
131. Geography of California. (2) Either semester. (Credit A, B)
 Assistant Professor MCCLELLAN
 Tu Th, 1.
 A comparison and contrast of California's geographic advantages and handicaps; a tracing of the relations between the natural resources of the state and the activities of the inhabitants.
169. The Teaching of Geography. (3) Either semester. (Credit B)
 M W F, 9. Assistant Professor MCCLELLAN
 Prerequisite: Geography 1A or equivalent preparation.
 The fundamental purposes of geography as an instrument of instruction; the changing point of view; the basic principles; the various methods of presentation; the use of materials.
171. Geographic Influences in American History. (2) II. (Credit A, B)
 Associate Professor MCBRIDE
 Prerequisite: Geography 1A and History 7A or 7B.
 The purpose of this course is to study the influence of the physical environment upon the distribution, culture, and historical development of the peoples inhabiting the Americas.
181. Current Problems in Political Geography. (2) II. (Credit A, B)
 Associate Professor MCBRIDE
 Consideration of the geographic basis of important problems of domestic and international affairs.

GEOLOGY

WILLIAM J. MILLER, Ph.D., Professor of Geology.

FREDERICK P. VICKERY, M.A., Assistant Professor of Geology.

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

Laboratory Fees.—Mineralogy 1A, 1B, \$5; 2AB, \$2.50.

A major in Geology for the A. B. degree is not offered at the Southern Branch of the University. The requirements in preparation for the major in this department at the University of California in Berkeley are as follows:

Required: Chemistry 1A-1B; Physics 2A-2B; Mathematics C; Civil Engineering 1A-1B; Geology 1A, 1B; Mineralogy 1A-1B; freehand and geometrical drawing.

Recommended: French and German. For students going into petrological, mineralogical, or economic lines Chemistry 5 or 6A-6B is desirable.

GEOLOGY

- 1A. General Geology: Dynamical and Structural. (3) Either semester.
(Credit A, B) Assistant Professor VICKERY
M W F, 9; Tu Th S, 8.
Three recitations per week and four field trips (half-day) per semester. Sections limited to thirty students.
Prerequisite: Chemistry and Physics.
- 1B. General Geology: Historical. (3) Either semester. —
(Credit A, B) Tu Th S, 11.
Three recitations per week and four field trips (half-day) per semester. Sections limited to thirty students.
Prerequisite: Geology 1A, 1C, or Paleontology 1.
- 1C. Elementary Physiography. (3) Either semester. (Credit A, B)
Assistant Professor VICKERY and —
M W F, 11. Four field trips (half-day).
A study of the surface of the earth.
- 2C. Map Study of Physiography. (1) Either semester. Tu, 1, 2, 3. —
(Credit A, B)
May be taken after or concurrently with 1A or 1C.

- 2D. Field Study of Physiography. (1) II. (Credit A, B) Tu, 1, 2, 3.

Assistant Professor VICKERY

An expenditure of \$5 for transportation may be incurred by each student.

May be taken after or concurrently with 2C or 5.

5. General Geology: Field Work; Dynamical and Structural. (1)

(Credit A, B) Th, 1, 2, 3.

Assistant Professor VICKERY

Field excursions and reports. An expenditure of \$5 for transportation may be incurred by each student.

May be taken after or concurrently with 1A.

6. General Geology: Laboratory and Field Work; Historical. (2) II.

(Credit A, B) Th, 1, 2, 3.

The mid-semester vacation will be spent in the field. An expenditure of \$10 for transportation may be incurred by each student.

May be taken after or concurrently with 1B.

- 102A-102B. Field Geology. (2-2) Yr. (Credit A, B) S, 9-5.

Assistant Professor WHITMAN

Field work with supplementary lectures and exercises in mapping. The vacation in the spring semester will be spent in the field. An expenditure of \$30 for transportation may be incurred by each student.

Prerequisite: Geology 1A; Mineralogy 1A, 2AB; Civil Engineering 1LA-1LB, 1FA-1FB. Geology 5 is recommended. Credit is given only to students who take the year's work.

103. Introduction to Petrology. (4) I. (Credit A, B)

Assistant Professor WHITMAN

Lectures, M F, 8; laboratory, Tu Th, 1, 2, 3. Two lectures and two laboratory hours each week.

Prerequisite: Geology 1A, Mineralogy 1A and 2AB.

The general characteristics, origin, mode of occurrence, and nomenclature of rocks and description of the more common types. Laboratory practice in the determination of textures, mineral components, and systematic position of rocks by direct observation of hand specimens.

MINERALOGY

- 1A-1B. Determinative Laboratory. (2-2) Yr. (Credit A, B) M F, 2, 3, 4.

Prerequisite: Chemistry.

Assistant Professor WHITMAN

- 2AB. Crystallography and Crystallographic Laboratory. (3) II.

(Credit A, B)

Assistant Professor WHITMAN

Lectures, M F, 8; laboratory, W, 2, 3, 4.

Prerequisite: Mineralogy 1A.

GERMAN

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

FRANK H. REINSCH, Ph.D., Instructor in German.

A. K. DOLCH, Ph.D., Instructor in German.

A major in German for the A.B. degree is not offered at the Southern Branch of the University. The requirement in preparation for the major in this department at the University of California in Berkeley is as follows:

Required: German A-B (10) and C-D (6) or their equivalents.

Recommended: History 4A-4B, Philosophy 3A-3B, English, French or Latin.

Two years of German in high school or five semester units of college work will ordinarily admit to course B; three years of German in high school or ten semester units of college work will ordinarily admit to course C-D. In cases of special merit the department may grant more advanced standing.

THE MAJOR

The requirements for the major at Berkeley are twenty-four units in upper division courses, including one full year's course in composition. With the permission of the department, six of the twenty-four units may be in related work in other departments.

A. Elementary German. Beginners' Course. (5) Either semester.

M Tu W Th F, 9; M Tu W Th F, 2.

(Credit A, B) Assistant Professor DIAMOND, Dr. REINSCH, Dr. DOLCH

This course corresponds to the first two years of high school German. Students who pass in course A after having had one year of German in high school will receive two units of credit in addition to their matriculation credit.

B. Elementary German (continuation of A). (5) Either semester.

M Tu W Th F, 11.

(Credit A, B) Assistant Professor DIAMOND, Dr. REINSCH, Dr. DOLCH

Prerequisite: course A or two years of high school German.

SA-SB. Elementary German. Beginners' Course. [Formerly numbered A3-B3.] (3-3) Yr. (Credit A, B) M W F, 12. Dr. REINSCH

Exclusively for students looking towards work in engineering or along general scientific lines.

C-D. Intermediate German (continuation of B). (3-3) Yr.

(Credit A, B) Tu Th S, 8.

Assistant Professor DIAMOND

Prerequisite: course B or three years of high school German. Selections from prose and poetry, ordinarily including one of Lessing's and one of Schiller's dramas, Goethe's *Hermann und Dorothea*; grammar, composition, and conversation. The course is generally conducted in German and furnishes the regular preparation for the upper division courses. It corresponds to the fourth year of high school German.

SC-SD. Scientific German. (3-3) Yr. (Credit A)

Dr. DOLCH

M W F, 8.

Prerequisite: course B or SB (formerly B3) or three years of high school German.

Course SC-SD provides special training of more or less technical texts. Students who have passed in course SC-SD with credit may, however take course 106A-106B; and they may be admitted to course 104A-104B, and 105A-105B; if they take at the same time course 106A-106B, or satisfy the department that they are not deficient in grammar and composition.

UPPER DIVISION COURSES

Four years of high school German, or course C-D, or, conditionally, SC-SD is prerequisite to courses 104A-104B, 105A-105B, 106A-106B.

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

(Credit A, B)

Dr. REINSCH

Selected works of Heinrich von Kleist, Grillparzer, Hebbel, Wildenbruch, Hauptmann, and Sudermann.

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

(Credit A, B) M W F, 8.

Assistant Professor DIAMOND

Selected works of Lessing, Goethe, and Schiller.

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

(Credit A, B) Tu Th, 8.

Dr. DOLCH

HISTORY

———, Professor of History.

FRANK J. KLINGBERG, Ph.D., Associate Professor of History.

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

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

MELVA LATHAM, A.B., Assistant Professor of History.

L. K. KOONTZ, Ph.D., Instructor in History.

DAVID K. BJORK, Ph.D., Instructor in History.

LUCY M. GAINES, M.A., Instructor in History.

BOWLAND HILL HARVEY, Ph.D., Instructor in History.

PRINCESS SANTA BORGHESE, Ph.D., Lecturer.

PREPARATION FOR THE MAJOR

Required: History 4A-4B, or 5A-5B, or 8A-8B, and either Political Science 1A-1B or Economics 1A-1B. History 7A-7B may be taken as an elective but does not fulfill the history requirement for the junior certificate. It satisfies the requirement for instruction in the Constitution of the United States for students in Teachers College only.

Recommended: French, or German, or Latin, or Spanish, or Italian.

INFORMATION FOR UPPER DIVISION STUDENTS

THE MAJOR

Twenty-four units of upper division work in history, or from eighteen to twenty-one upper division units in history and from three to six upper division units in either political science or economics approved by the department.

There must be a year course in European history (one of the following: 111A-111B, 121A-121B, 153A-153B) and a year course in American history (one of the following: 181A-181B, 162A-162B).

At least one advanced course must follow a general course in the same field, chosen within one of the following sequences: History 121A-121B or 153A-153B, followed by 155A-155B; 181A-181B or 162A-162B, followed by 177A-177B.

LOWER DIVISION COURSES

- 4A-4B. Social and Political History of Modern Europe. (3-3) Yr.
 (Credit A, B) Dr. BJORK, Dr. KOONTZ, Mrs. GAINES
 M W F, 8; M W F, 11; M W F, 2; Tu Th S, 10.
- 5A-5B. History of England and Greater Britain. (3-3) Yr.
 (Credit A, B) Associate Professor KLINGBERG, Dr. HARVEY
 M W F, 9; M W F, 10; M W F, 12; M W F, 3.
- 7A-7B. History of the United States. (3-3) Yr. (Credit A, B)
 Associate Professor PARISH, Assistant Professor LATHAM, Mrs.
 GAINES
 Tu Th S, 8; Tu Th S, 9; Tu Th S, 10; M W F, 3.
 First semester, to 1837. Second semester, to the present time.
- 8A-8B. The History of the Americas. (3-3) Yr. (Credit A, B)
 M W F, 12; M W F, 2. Assistant Professor LOCKEY
11. Social Studies in the Kindergarten-Primary Grades. (2) Either
 semester. (Credit B) Assistant Professor LATHAM
 Tu Th, 9; Tu Th, 3.
 Treats of sources of material, curricula now in use, and projects.
 Prerequisite: Psychology 2.
38. Contemporary History. (1) Either semester. Mrs. GAINES
 (Credit B)
39. Pacific Coast History. (2) II. Mrs. GAINES
 (Credit B)
76. The Industrial History of the United States. (3) Either semester.
 (Credit A, B) Assistant Professor LATHAM
77. The Social Sciences for Junior High Schools. (2) II
 (Credit B) Assistant Professor LATHAM

PREREQUISITES FOR ALL UPPER DIVISION COURSES

History 4A-4B, or History 5A-5B, and History 8A-8B, or one year of American history in the high school; or History 8A-8B and one year of European history in the high school; or one year of European history and one year of American history in the high school.

GENERAL REQUIREMENTS IN ALL UPPER DIVISION MAJOR COURSES

1. Reading in foreign languages. At least one hundred pages of the total amount of reading required in each course is in a foreign language. If in any course it proves impracticable to require reading in a foreign language, the total amount of reading will be increased.

2. Written work. A term paper is required in each course.

111A-111B. The Development of Ancient Civilizations. (3-3) Yr.

(Credit A, B)

Dr. RANKIN

M W F, 10.

121A-121B. The Middle Ages and The Renaissance. (3-3) Yr.

(Credit A, B)

Dr. BJORK

133. The History of Italy and Europe. (3) II. (Credit A, B)

Dr. SANTA BORGHESE

The Dark Ages, the Middle Ages, the Renaissance period and modern times.

153A-153B. Social and Political History of Modern England: 1603-1924.

(3-3) Yr. (Credit A, B)

Associate Professor KLINGBERG

155A-155B. History of the British Empire. (2-2) Yr. (Credit A, B)

Associate Professor KLINGBERG

162A-162B. History of Hispanic America from 1808 to the present

(2-2) Yr. (Credit A, B)

Assistant Professor LOCKEY

177A-177B. The United States Since 1860. (2-2) Yr. (Credit A, B)

Associate Professor PARISH

A study of conditions and events in the United States during the period of Civil War and Reconstruction and of the development of the nation since 1876.

181A-181B. The History of the Westward Movement. (3-3) Yr.

(Credit A, B)

Associate Professor PARISH

(A) Settlement of the Mississippi Valley. (B) Migration across the plains and mountains to the Pacific.

HOME ECONOMICS

HELEN B. THOMPSON, Ph.D., Professor of Home Economics.
 ORABEL CHILTON, B.S., Associate in Home Economics.
 BERNICE ALLEN, B.S., Ed.B., M.A., Associate in Home Economics.
 MAUD D. EVANS, Ed.B., Associate in Home Economics.
 FLORENCE A. WILSON, A.B., B.S., Associate in Home Economics.
 PAULINE F. LYNCH, Associate in Home Economics.
 MAUDE E. JENKINS, B.S., Associate in Home Economics.

Laboratory Fees.—The fee required for courses 1A, 1B, 2, 175, 179, 196B is \$1; for courses 66, 171 is \$1.50; for courses 11A, 11B, 31, 33, 120, 125, 159, 196A is \$2.75.

A major in Home Economics for the A.B. degree is not offered at the Southern Branch of the University. The requirements in preparation for the majors in Household Science and Household Art at the University of California in Berkeley are as follows:

Household Art:

Required: High school courses in botany, chemistry, mechanical drawing, and clothing. Household Art 1A-1B (5); Art 6A-6B (4); History 4A-4B (6); Economics 1A-1B (6), or equivalents.

Recommended: Art 14 (2); Psychology 1A (3); French, Italian, or German.

See Announcement of Courses, Berkeley.

Household Science:

Chemistry 1A-1B, 8 (13); Bacteriology 1 (4); Household Science 1A-1B (6).

1A. Clothing (*Household Art 1A*). (2) Either semester. (Credit A, B)

Tu Th, 11, 12; M F, 1, 2.

Miss WILSON

Prerequisite: Art 2A.

The study of kinds and qualities of materials for different uses; typical forms of clothing; artistic appreciation, standards and hygienic characteristics of dress.

1B. Clothing Economics (*Household Art 1B*). (3) Either semester.

(Credit A, B)

Miss LATHROP, Miss WILSON

Prerequisite: Economics 1A.

Clothing industries and clothing standards in relation to the economic and social life of the community; quantity and cost budgets for individuals and family groups.

- 11A. Elementary Food (*Household Science 1A*). (2) Either semester.
(Credit A, B) Miss ALLEN, Miss JENKINS
Prerequisite: Chemistry 2A.
The production, transportation and marketing of food materials; the principles involved in food preparation and preservation; compilation of recipes; practice in judging food preparations.
- 11B. Food Economics (*Household Science 1B*). (4) Either semester.
(Credit A, B) Miss ALLEN, Miss JENKINS
Prerequisite: Chemistry 10.
Emphasis is placed on the classification, occurrence, and general properties of food stuffs; the legal and sanitary aspects of food products handled in commerce; food values in relation to cost of materials, preparation, and service of meals. Attention is given to the practical problems involved in the selection and service of food in school lunch rooms and cafeterias.
24. Home Economics Survey. (3) Either semester. (Credit B)
Miss LYNCH
For general professional and kindergarten-primary students. A brief discussion of problems in the selection and use of food and clothing and in the administration of the household.
66. Millinery. (2) Either semester. (Credit B) Miss LATHROP
Tu Th, 9, 10; Tu Th, 1, 2.
Required of vocational students, elective for others.
Prerequisite: Art 2A and Home Economics 1A or equivalent.
Study of trade methods and markets for millinery supplies; execution of designs illustrating problems involved in class demonstrations in laboratory teaching, and in the direction of club projects.
120. Dietetics. (3) Either semester. (Credit B)
Professor THOMPSON, Miss CHILTON
Prerequisite: Chemistry 10, Home Economics 11B, Physiology 1.
Daily food requirements as indicated by the experimental studies that have established the quantitative basis in dietetics; calculations of standard portions and combinations of foods; computation and scoring of dietaries with special reference to the nutritive requirements for growth in infancy and childhood and to varying conditions in both normal and abnormal metabolism in the adult. Methods for field work and nutrition clinics.
125. Experimental Cookery. (3) I. (Credit B) Miss ALLEN
Prerequisite: senior standing.
Quantitative methods in food preparation under controlled conditions.

- 128A-128B. Nutrition. (2-2) Yr. (Credit B) Professor THOMPSON
Tu Th, 1.

Prerequisite: Home Economics 11B. Recommended parallel or to precede Chemistry 107.

Lectures and review of the literature in the field of nutrition, discussions of metabolism studies and of feeding experiments for testing the biological efficiency of different types of food materials. Special attention is given to recent literature which bears upon problems in dietetics, upon growth, and upon normal and subnormal nutrition in infancy and childhood.

- 147A. Development of Home Economics Education. (3) Either semester. (Credit B) M W F, 12. Professor THOMPSON

Prerequisite: Psychology 2 and ten or more units of Home Economics credit.

The development of Home Economics as an educational movement; organization of curricula and present status of courses in various types of schools.

- 147B. Principles of Home Economics Teaching. (3) Either semester.

(Credit B) Tu Th, 9.

Miss EVANS

Prerequisite: Psychology 2 and twelve or more units of Home Economics credit.

Study of typical courses and their presentation; critical review of texts and references for elementary and secondary schools.

159. Food Problems. (3) II. (Credit B)

Miss ALLEN

Prerequisite: senior standing.

Special problems in food with review of literature of the subject.

160. Household Administration. (3) Either semester. (Credit B)

M W F, 9.

Miss LYNCH

Prerequisite: Commerce 1A, Physics 11, Food and Clothing—one year each.

Economic organization and administration of the activities of the home; household budgets and accounts; standards of living.

170. Home and Community. (2) II. (Credit B)

Miss LYNCH

Prerequisite: senior standing.

Home and family life as modified by present social and civic demands.

171. Demonstration—Food and Clothing. (1) II. The STAFF
(Credit B)
Prerequisite: senior standing.
Instruction is given in the technique of food and clothing demonstrations and each student has practice in presenting demonstrations for class discussion and criticism.
175. Advanced Study of Costume. (3) I. (Credit B) Miss LATHROP
Prerequisite: Home Economics 1B.
Practice in the development of designs for individuals and for use in historical plays and pageants.
179. Clothing Problems. (3) II. (Credit B) Miss LATHROP, Miss WILSON
Prerequisite: senior standing.
Special problems in clothing with review of literature.
180. Problems in Household Economics. (3) II. (Credit B) Miss LYNCH
Prerequisite: senior standing.
Library and field work in investigation of an assigned problem in housing, household equipment, family expenditures, standards of living or of community conditions and activities related to the home.
- 196A-196B. Teaching Problems in Home Economics. (2-2) Yr.
(Credit B) Tu Th, 1, 2. The STAFF
Prerequisite: senior standing.
A course dealing with the selection of laboratory supplies, equipment, and illustrative materials and the methods of developing standards of technique in courses in foods and in clothing.
198. Textiles. (3) II. (Credit B) Miss WILSON
Prerequisite: Commerce 1A, Chemistry 10. Parallel: Physics 11.
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.
Departmental sequences.
For students with majors other than Home Economics it is suggested that courses be chosen from one of the following groups:
I. Home Economics 1A (2), 66 (2), 175 (3), 179 (3).
II. Home Economics 24 (3), 160 (3), 170 (2), 180 (3).
III. Home Economics 31 (4), 120 (3), 125 (3), 128AB (2-2).

VOCATIONAL COURSES*

2. **The Study of Dress.** (3) II. (Credit B) Miss LATHROP
Prerequisite: Home Economics 1A.
A study of the artistic qualities of dress design; pattern, color, and weave in fabrics; hygienic and economic standards in the selection and care of clothing.
31. **Food Compositions.** (4) Either semester. (Credit B) Miss JENKINS
Prerequisite: Chemistry 2A.
Food principles, selection, economic uses, nutritive values as affected by method of preparation.
33. **Elementary Dietetics.** (3) II. (Credit B) Miss CHILTON
Prerequisite: Chemistry 10 and Home Economics 11B.
Principles of diet applied to individual, the family and other groups.
43. **Household Administration.** (3) I. (Credit B) Miss LYNCH
Prerequisite: Commerce 1A.
Household equipment; efficient methods of work; business principles and administrative methods applicable to the household.
46. **Home Economics Education.** (3) I. (Credit B) The STAFF
Prerequisite: Psychology 2.
The early development and present status of home economics education, methods of teaching, criticism of courses.

* These courses are given primarily for students in the vocational curriculum (see page 85), but are open to students in other curricula in the Teachers College.

MATHEMATICS

GEORGE E. F. SHERWOOD, Ph.D., Professor of Mathematics.

EARLE R. HEDRICK, Ph.D., Professor of Mathematics.

*HARRY M. SHOWMAN, E.M., M.A., Assistant Professor of Mathematics.

GLENN JAMES, Ph.D., Assistant Professor of Mathematics.

HARRIET E. GLAZIER, M.A., Assistant Professor of Mathematics.

MYRTIE COLLIER, B.S., Assistant Professor of Mathematics.

GUY H. HUNT, C.E., Assistant Professor of Applied Mathematics.

PAUL H. DAUS, Ph.D., Assistant Professor of Mathematics.

EUPHEMIA B. WORTHINGTON, Ph.D., Instructor in Mathematics.

WENDELL E. MASON, M.S., Instructor in Applied Mathematics.

FREDERICK C. LEONARD, Ph.D., Instructor in Astronomy.

MAY M. BEENKEN, Ed.B., Associate in Mathematics.

†MIGUEL A. BASOCO, A.B., Associate in Mathematics.

Fees.—The fee required for Civil Engineering 1FA-1FB is \$5 per semester; for Civil Engineering 3 the fee is \$25.

College of Letters and Science.—It is essential that students who expect to take a major in mathematics should complete in the high school two years of algebra, plane and solid geometry, and plane trigonometry. For such students the basic courses leading either to further work in mathematics or to the mathematical treatment of any science are the elementary courses in analytic geometry (course 5) and in calculus (course 9). These courses should therefore be elected in the freshman year, if possible. The additional courses in preparation for the major are courses 6 and 8.

Students who have had only one year of algebra in the high school will be admitted only to course 1C, and those who have not had trigonometry must elect course CA before they will be admitted to any further work except course 2.

PREPARATION FOR THE MAJOR

Courses 5, 6, 8, and 9, which must be passed with an average grade of C. Students who have not taken plane trigonometry in the high school will need to elect course CA before taking course 5. It is very desirable that the student of mathematics should have some acquaintance with the applications to physics and astronomy and also a reading knowledge of French and German.

* In residence first half-year only.

† In residence second half-year only.

THE MAJOR

Mathematics 109 and 119 and three of the following courses or groups: (A) 101 and 102; (B) 111A, 111B; (C) 114A-114B; (D) 125A-125B. Students who are preparing to teach mathematics in a high school will probably wish to elect group A.

College of Commerce.—Freshmen in this college are required to take courses 1 or 1c, and 2, except that students who have completed two years of high school algebra and also plane trigonometry may be excused from course 1.

Colleges of Engineering and Chemistry.—The minimum requirements for admission to the courses 3A-3B, 4A-4B, or to 3A, 3C-4C are one and one-half years of algebra, plane geometry, and plane trigonometry. Prospective engineering students are urged, however, to add another half-year of algebra, and solid geometry, to this minimum preparation.

Honors.—Candidates for honors at graduation must include courses 109, 119, and groups B and C, and in addition one of the remaining groups of the list.

LOWER DIVISION COURSES

- CA. Plane Trigonometry. (2) Either semester. (Credit A, B)
 Tu Th, 12. Assistant Professor COLLIER
 Prerequisite: elementary algebra and geometry.
- CB. Spherical Trigonometry and Computation. (2) Either semester.
 (Credit A, B) Tu Th, 12. Mr. MASON
 Prerequisite: plane trigonometry and solid geometry.
- G. Solid and Spherical Geometry. (2) I. (Credit A, B)
 Tu Th, 1. Assistant Professor JAMES
 Prerequisite: plane geometry.
1. Advanced Algebra. (3) Either semester. (Credit A, B)
 M W F, 9; M W F, 11; M W F, 12. Dr. WORTHINGTON
 For students who have had $1\frac{1}{2}$ years of high school algebra and plane geometry.
- 1c. Advanced Algebra. (3) Either semester. (Credit A, B)
 M Tu W Th F, 9; M Tu W Th F, 11. Assistant Professor JAMES
 For students requiring more drill than Mathematics 1 affords.
2. Mathematics of Finance. (3) Either semester. (Credit A, B)
 M W F, 11. Miss BEENKEN
 Prerequisite: Mathematics 1 or 1c.

- 3A. Plane Analytic Geometry. (3) Either semester. (Credit A, B)
M W F, 9; Tu Th S, 9. Assistant Professor SHOWMAN
Prerequisite: trigonometry and Mathematics 1 or its equivalent.
- 3B. Differential Calculus. (3) II. (Credit A, B)
M W F, 8. Assistant Professor COLLIER
Prerequisite: Mathematics 3A.
- 3C. Differential and Integral Calculus. (5) I. (Credit A, B)
M Tu W Th F, 11. Assistant Professor DAUS
Prerequisite: Mathematics 3A. For students beginning calculus in
the second year.
- 4A-4B. Solid Analytic Geometry and Integral Calculus. (3-3) Yr.
(Credit A, B) Assistant Professor JAMES
M W F, 12.
Prerequisite: solid geometry and Mathematics 3B.
- 4c. Solid Analytic Geometry and Integral Calculus. (4) II. (Credit A, B)
M Tu Th F, 11. Assistant Professor DAUS
Prerequisite: solid geometry and Mathematics 3c.
This course with Mathematics 3c is the equivalent of Mathematics
3B, 4A, and 4B.
5. Analytic Geometry. (5) II. (Credit A, B) Assistant Professor JAMES
M Tu W Th F, 10.
Prerequisite: Mathematics CA.
6. Introduction to Projective Geometry. (3) II. (Credit A, B)
Tu Th S, 10. Assistant Professor GLAZIER
Prerequisite: consent of the instructor.
8. College Algebra. (3) I. (Credit A, B) Professor SHERWOOD
M W F, 10.
For students in the College of Letters and Science.
Prerequisite: two years of algebra in the high school.
9. Differential and Integral Calculus. (5) I. (Credit A, B)
M Tu W Th F, 8. Professor HEDRICK
Prerequisite: Mathematics 5.
- 15c. First Course in Mechanics. (4) II. (Credit A, B)
M W F S, 11. Assistant Professor HUNT
Prerequisite: credit or registration in either Mathematics 4B or 4c.

17. Arithmetic for Teachers. (3) Either semester. (Credit B)
 Tu Th S, 8; M W F, 3. Assistant Professor GLAZIER
- 17c. Arithmetic for Teachers. (3) Either semester. (Credit B)
 M Tu W Th F, 8. Dr. WORTHINGTON
 For students requiring more drill than Mathematics 17 affords.
18. Business Mathematics. (2) I. (Credit B)
 Tu Th, 11. Assistant Professor HUNT
74. The Teaching of Junior High School Mathematics. (3) II.
 (Credit B) M W F, 3 Assistant Professor COLLIER

UPPER DIVISION COURSES

These courses are open to students in the lower division who have the necessary prerequisites.

- *101. Elementary Geometry for Advanced Students. (3) I. (Credit A, B)
 M W F, 2. Assistant Professor DAUS
 Prerequisite: courses 5 and 6.
 Selected topics in elementary geometry, with particular emphasis on recent developments.
- *102. Elementary Algebra for Advanced Students. (3) II. (Credit A, B)
 M W F, 2. Professor SHERWOOD
 Prerequisite: courses 8 and 9.
 Selected topics in elementary algebra, with particular reference to modern points of view.
- *104A-104B. History of Mathematics. (2-2) Yr. (Credit A, B)
 Tu Th 1. Assistant Professor GLAZIER
 A non-technical course open to students who have some knowledge of the fundamental ideas of analytic geometry and calculus.
109. Calculus: Advanced Course. (3) I. (Credit A, B)
 M W F, 9. Dr. WORTHINGTON
 Prerequisite: course 9.
- †111A. Theory of Algebraic Equations. (3) I. (Credit A, B)
 M W F, 9. Professor SHERWOOD
 Prerequisite: courses 8 and 9.
-
- * Given in 1924-25 and alternate years.
 † Given in 1925-26 and alternate years.

- †111B. Higher Algebra. (3) II. (Credit A, B) Professor SHERWOOD
M W F, 9.
Prerequisite: courses 8 and 9.
Infinite series and products, continued fractions, theory of numbers.
- *114A-114B. Advanced Analytic Geometry. (3-3) Yr. (Credit A, B)
M W F, 8. Professor SHERWOOD
Prerequisite: courses 6 and 9.
Introduction to modern methods in analytic geometry.
- †115. Theory of Numbers. (3) I. (Credit A, B) Professor SHERWOOD
M W F, 8.
119. Differential Equations. (3) II. (Credit A, B). Dr. WORTHINGTON
Tu Th S, 9.
Prerequisite course 109, or its equivalent.
- *124A-124B. Vector Analysis. (2-2) Yr. (Credit A, B)
Tu Th, 10. Assistant Professor JAMES
Prerequisite: one year of college physics and calculus.
- *125A-125B. Analytic Mechanics. (3-3) Yr. (Credit A, B)
M W F, 10. Assistant Professor SHOWMAN
Prerequisite: course 109, or its equivalent.
190. The Teaching of Mathematics. (3) I. (Credit A, B)
M W F, 10. Professor HEDRICK
Prerequisite: course 9 or its equivalent.
A critical inquiry into present-day tendencies in the teaching of mathematics.

CIVIL ENGINEERING

- 11A-11B. Plane Surveying Lectures. (2-2) Yr. (Credit A)
Tu Th, 9; Tu Th, 10. Assistant Professors SHOWMAN, HUNT
Prerequisite: trigonometry and geometrical drawing.
- 11A-11B. Plane Surveying Field Practice. (1-1) Yr. (Credit A)
Assistant Professor HUNT
M, 2-5; Tu, 1-4; W, 2-5; Th, 1-4; F, 2-5; S, 9-12.
This course may be taken only in conjunction with, or subsequent to Civil Engineering 11A-11B.

* Given in 1924-25 and alternate years.

† Given in 1925-26 and alternate years.

3. Summer Class in Plane Surveying. (3) (Credit A)

Assistant Professor SHOWMAN

Prerequisite: Civil Engineering 1FA-1FB.

Four weeks of field work after the close of the school year.

8. Materials of Engineering Construction. (2) II. (Credit A)

Tu Th, 10.

Mr. MASON

Prerequisite: sophomore standing.

ASTRONOMY

1. Elementary Astronomy. (3) Either semester. (Credit A, B)

Tu Th S, 9.

Dr. LEONARD

Prerequisite: elementary algebra and plane geometry.

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

Th, 1-4.

Dr. LEONARD

Prerequisite: solid geometry, Civil Engineering 1FA, and credit or registration in Civil Engineering 1FB.

5. History of Astronomy. (3) I. (Credit A, B)

Dr. LEONARD

M W F, 8. Prerequisite: Astronomy I.

11. Modern Astronomy. (3) II. (Credit A, B)

Dr. LEONARD

M W F, 8. Prerequisite: Astronomy I.

The stars and nebulae. Progress in astronomy through modern methods, especially spectroscopic and photographic.

103A-103B. General Astronomy. (3-3) Yr. (Credit A, B) Dr. LEONARD

M W F, 11.

Prerequisite: Mathematics 3A and Physics 2A-2B, 3A-3B, or their equivalent.

The general facts and principles underlying the science of astronomy in all its branches, developed and discussed in detail.

MECHANIC ARTS

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

JOHN B. PHILLIPS, Associate in Mechanic Arts.

JAMES WILLARD MARSH, Associate in Mechanic Arts.

FOSS R. BROCKWAY, Associate in Mechanic Arts.

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

ADRIAN B. KELLAR, B.S. in E.E., Associate in Mechanic Arts.

Laboratory Fees.—The deposit required for Mechanical Engineering 8A, 8B, 9A, 9B; Mechanic Arts 10A, 10B, 11A, 11B, 12, 40, 45, 75A, 75B, 100A, 100B, 151, 160A, 160B, 165, 180A, 180B, is \$3.

MECHANICAL ENGINEERING

- D. Engineering Drawing. (2) Either semester. (Credit A, B)
 Tu Th, 8-11. Assistant Professor MANSFIELD, Mr. PAXTON
1. Elements of Heat Power Engineering. (3) (Credit A, B)
 M W F, 11. Mr. PAXTON
2. Descriptive Geometry. (3) Either semester. (Credit A, B)
 Mr. PAXTON
 Lecture, Tu, 11. Drafting, Sec. 1, Tu Th, 1-4. Sec. 2, W, 2-5;
 S, 9-12.
6. Machine Drawing and Design. (5) Either semester. (Credit A)
 Mr. PAXTON
 Lecture, M W F, 10; Drafting, M F, 2-5.
- 8A-8B. Shop Work. (2-2) Yr. (Credit A, B) Mr. KELLER
 Lecture, Tu, 1, and five hours laboratory.
 Pattern making and foundry practice.
- 9A-9B. Shop Work. (2-2) Yr. (Credit A, B) Mr. PHILLIPS
 Lecture, M, 2, and five hours laboratory.
 Metal work in metal.
- S18. Summer Session Shop Work. (3) (144 working hours required)
 Assistant Professor MANSFIELD
 Shop work in pattern making and foundry practice or in machine
 shop practice.

MECHANIC ARTS

- 10A-10B. Shop Work. (2-2) Yr. (Credit B) Mr. KELLER
Bench work in wood.
- 11A-11B. Shop Work. (2-2) Yr. (Credit B) Mr. KELLER
Elementary woodwork, painting, finishing and decorating.
12. Shop Work. (2) II. (Credit B) Mr. KELLER
Furniture construction and repair, upholstering and finishing.
40. Shop Work. (1) (Credit B) Mr. PHILLIPS
Forging and oxy-acetylene welding.
45. Shop Work. (2) (Credit B) Mr. MARSH
Elementary electrical bench work.
50. Machine Drawing. (2) I. (Credit B) Assistant Professor MANSFIELD
51. Architectural Drawing. (2) II. (Credit B)
Assistant Professor MANSFIELD
70. The Gasoline Automobile. (2) (Credit A, B) Mr. MARSH
Unit construction, operation and upkeep.
- 75A-75B. Shop Work. (2-2) Yr. (Credit B) Mr. PHILLIPS
Machine shop practice.
- 100A-100B. Shop Work. (3-3) Yr. (Credit B) Mr. KELLER
Building construction, painting and furnishing.
- 150A-150B. Applied Electricity. (2-2) Yr. (Credit B) Mr. MARSH
151. Shop Work. (2) (Credit B) Mr. MARSH
Storage battery and electrical bench work.
- 160A-160B. Shop Work. (3-3) (Credit B) Mr. MARSH, Mr. BROCKWAY
Automobile repair; general garage work.
165. Automotive Laboratory. (3) II. (Credit B) Mr. MARSH
Engine design and testing; fuels and lubricants.
- 180A-180B. Occupations and Home Mechanics. (3-3) (Credit B)
Assistant Professor MANSFIELD and STAFF
Organization and methods of pre-vocational teaching with appli-
cation to the general shop plan. Pipe fitting; sheetmetal; bench metal;
pumps; shoe repair.
190. Organization and Administration of Industrial Education. (2)
(Credit B) Assistant Professor MANSFIELD

MILITARY SCIENCE AND TACTICS

GUY G. PALMER, Colonel, U. S. Army, Retired, Professor of Military Science and Tactics.

JOHN E. CREED, B.S., Major, U. S. A., Associate Professor of Military Science and Tactics.

LEIGH BELL, LL.B., Captain, U. S. A., Assistant Professor of Military Science and Tactics.

H. K. HEATH, Captain, U. S. A., Assistant Professor of Military Science and Tactics.

A. N. STARK, JR., Captain, U. S. A., Assistant Professor of Military Science and Tactics.

C. H. OWENS, Assistant Professor of Military Science and Tactics.

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 text books for the use of the students belonging to such units. The University, being responsible for text books and uniforms furnished by the United States, requires the students to deposit with the Comptroller \$20 to cover the cost of the text books and uniforms issued to them. This deposit must be made before the student files his study list. It is refunded at the close of the academic year or upon the student's withdrawal, provided the student then returns in good condition all articles issued to him. An amount necessary to replace articles not returned by the student will be retained by the Comptroller.

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: the basic course and the advanced course.

Basic Course

The basic course is prescribed for all first-year and second-year undergraduate male students who are citizens of the United States, able-bodied and under twenty-four years of age at the time of admission to the Uni-

versity. 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 B. O. T. C. unit may be granted advanced standing. Application for this 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. The character of this recommendation will have weight in determining the credit to be given. When a student receives credit for the first-year basic course he will be enrolled in the second-year basic course in his freshman year. However, this standing shall not be made the basis for a petition for exemption from taking the two years' work in Military Science and Tactics.

1A-1B. Basic Infantry Training. (1½-1½) Yr. (Credit A, B)

Professor PALMER, Associate Professor CREED, Assistant Professors BELL, STARK, HEATH, OWENS.

M W F, 8; M W F, 1. Wednesday of every other week.

Instruction in infantry drill, rifle marksmanship, interior guard duty, manipulation of the pack, tent pitching, scouting and patrolling, physical training and military courtesy.

2A-2B. Basic Infantry Training. (1½-1½) Yr. (Credit A, B)

Drill, W, 1; lectures, M F, 8; M F, 9; M F, 10; M F, 11; Tu Th, 8; Tu Th, 9; Tu Th, 10; Tu Th, 11.

Professor PALMER, Associate Professor CREED, Assistant Professors BELL, STARK, HEATH.

Instruction in map reading, infantry weapons, musketry, command and leadership, and military hygiene.

Advanced Course

The advanced courses are 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 president of the institution and the professor of military science and tactics, and who executes the following written agreement, will be entitled, while not subsisted in kind, to a commutation of subsistence fixed by the Secretary of War in accordance with law (about \$120 per year).

....., 192.....
 In consideration of commutation of subsistence to be furnished me in accordance with law, I hereby agree to continue in the Reserve Officers Training Corps during the remainder of my course in
, to devote five hours
 (Institution)
 per week during such period to the military training prescribed, and to pursue the courses of camp training during such period prescribed by the Secretary of War.

.....
 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 the 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 junior and senior classes.

103A-103B. Advanced Infantry Training. (3-3) Yr. (Credit B)
 M Tu W Th F, 8; M Tu W Th F, 1.

Professor PALMER, Associate Professor CREED, Assistant Professors BELL, STARK, HEATH, OWENS.

Instruction and practice in the duties of officers in connection with basic courses; instruction in field engineering, military sketching, tactics, command and leadership, machine guns, 37 mm. guns and light mortars.

104A-104B. Advanced Infantry Training. (3-3) Yr. (Credit B)
 M Tu W Th F, 1.

Professor PALMER, Associate Professor CREED, Assistant Professors BELL, STARK, HEATH, OWENS.

Instruction and practice in the duties of officers in connection with basic courses; instruction in tactics, military history, administration, and command and leadership, military law and rules of land warfare.

The Basic R. O. T. C. camp may be attended by students who are members of the basic course at the completion of either the first or the second year. Attendance is voluntary. Students who attend receive credit from the University of one-half of a University unit for each week of the duration of the camp, normally six weeks.

MUSIC

SQUIRE COOP, Lecturer in Music.

†FRANCES A. WRIGHT, Associate Professor of Public School Music.

WILLIAM J. KRAFT, Mus.Bac., F.A.G.O., Lecturer in Music.

*A. J. GANTVOORT, Lecturer in Music.

CAROLYN ALCHIN, Lecturer in Music.

BERTHA C. VAUGHN, Teacher in Voice.

Applicants for any music course must show evidence of musical talent, including ability to read music. Ability to play piano music of advanced grade is a prerequisite to the work of the junior year, in addition to courses described below.

A major in music for the A.B. degree is not offered at the Southern Branch of the University. The requirements in preparation for the major in this department at the University of California in Berkeley are as follows:

Required: Music 4A-4B (6), 5A-5B (4) (Chromatic Harmony), 6A-6B (4), 14A-14B (6).

Recommended: one year each of choral singing, musical history, ear-training; two years' study of a musical instrument.

- | | |
|--|-------------|
| 1A-1B. Choral Practice. (1-1) Yr. (Credit A, B)
Open only to vocalists of ability. | Mr. COOP |
| 2A-2B. Orchestral Practice. (1-1) Yr. (Credit A, B)
Open only to instrumentalists of advanced ability. With string ensemble (2-2). (Credit A, B). | Mr. COOP |
| 3A-3B. General History of Music. (2-2) Yr. (Credit A, B) | Mr. KRAFT |
| 4A-4B. Elementary Harmony. (3-3) Yr. (Credit A, B)
Prerequisite: 5A-5B. | Miss ALCHIN |
| 5A-5B. Music Reading. No credit. | Mr. KRAFT |
| 6A-6B. Music Writing. (3-3) Yr. (Credit B).
Prerequisite: course 5A-5B taken previously or concurrently. | Mr. KRAFT |

† Absent on leave, first half-year.

* In residence, first half-year only.

- 7A-7B. Voice. (1-1) Yr. (Credit A, B) —
- 8A-8B. Voice. (1-1) Yr. (Credit A, B) —
- M35. Observation. (1) II. (Credit B).
Associate Professor WRIGHT, Mr. GANTVOORT
- M60. General Teachers Course. (2) Either semester. (Credit B)
Associate Professor WRIGHT, Mr. GANTVOORT
- M61. Kindergarten-Primary Course. (2) Either semester. (Credit B)
Associate Professor WRIGHT
- 101A-101B. Counterpoint. (2-2) Yr. (Credit A, B) Mr. KRAFT
Prerequisite: course 155A-155B.
- 105A-105B. Composition. (2-2) Yr. (Credit A, B) Mr. KRAFT
Prerequisite: course 155A-155B.
- 109A-109B. Conducting. (1-1) Yr. (Credit A, B) Mr. COOP
Prerequisite: courses 5A-5B, 4A-4B. Course 5A-5B may, unless previously taken, be required as supplementary study.
- 111A-111B. Music Literature. (2-2) Yr. (Credit A, B) Mr. COOP
Introduction to the critique of music.
- 112A-112B. Principles of Education Applied to Elementary and Secondary Grades. (3-3) (Credit B)
Associate Professor WRIGHT, Mr. GANTVOORT
Prerequisite: courses 7A-7B, 4A, M35.
- 114A-114B. Instrumentation. (2-2) Yr. (Credit A, B) Mr. COOP
Prerequisite: course 155A-155B.
- 155A-155B. Advanced Harmony. (3-3) Yr. (Credit A, B) Miss ALCHIN
Prerequisite: course 4A-4B.
184. Supervision. (2) Either semester. (Credit B)
Associate Professor WRIGHT, Mr. GANTVOORT

PHILOSOPHY

CHARLES H. RIEBER, Ph.D., Professor of Philosophy and Dean of the College of Letters and Science.

DONALD S. MACKAY, A.B., Assistant Professor of Philosophy.

CLIFFORD L. BARRETT, M.A., Associate in Philosophy.

Preparation for the Major.—Courses 1A-1B, 3A-3B.

The Major.—The upper division programme: (a) Each student offering a major in philosophy shall choose from upper division courses in the department 18 or 21 units, which shall include two year-courses.

(b) The remainder of the 24 units required for the major may be chosen by the student, with the approval of a departmental adviser, from the following courses in departments related to the major.

Specific Courses in Other Departments.—English 121A-121B, German 105A-105B, History 111A-111B, Mathematics 109, Physics 111, Political Science 112A-112B.

LOWER DIVISION COURSES

1A. Logic. (3) Either semester. (Credit A, B) M W F, 11.

Professor RIEBER, Mr. BARRETT

Deductive logic. Division, definition, the forms and transformations of judgments, the syllogism.

1B. Logic. (3) Either semester. (Credit A, B) M W F, 2.

Professor RIEBER, Mr. BARRETT

Inductive logic. The presuppositions and methods of inductive sciences. Prerequisite: Philosophy 1A.

3A-3B. History of Philosophy. (3-3) Yr. (Credit A, B)

Assistant Professor MACKAY, Mr. BARRETT

First half-year: The development of ideas from Thales to Plotinus.

Second half-year: The problems and systems of philosophy from the rise of Christendom to the nineteenth century.

UPPER DIVISION COURSES

General Prerequisite.—Students enrolling in any upper division course must have completed six units of work in the lower division courses 1A-1B, 3A-3B.

104A-104B. Ethics. (3-3) Yr. (Credit A, B)

Assistant Professor MACKAY

First half-year: A study of the natural basis of conduct with reference to ethical theory, and an analysis of different types of life and character in selected biographies.

Second half-year: A discussion of the development, meaning, and conflict of moral standards with reference to present economic and political problems.

105. Kant. (3) II. (Credit A, B)

Assistant Professor MACKAY

Discussion of the philosophy of Kant, based on a reading of the Critique of Pure Reason. Historical aspects of Kant's position will be noted, as well as the significance of his method for problems of contemporary thought.

112. Philosophy of Religion. (3) I. (Credit A, B)

Professor RIEBER

M W F, 2.

A study in 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.

116. Plato. (3) I. (Credit A, B)

Assistant Professor MACKAY

Tu Th S, 9.

The principal Dialogues of Plato will be read and discussed with reference to their dramatic form and their philosophical implications, especially in the teaching of Socrates and the subsequent thought of Aristotle.

119. British Philosophy. (3) II. (Credit A, B)

Assistant Professor MACKAY

The developments in English and Scottish empiricism from Francis Bacon to Herbert Spencer.

136A-136B. Esthetics. (3-3) Yr. (Credit A, B) M W F, 3.

Associate Professor GORDON

First half-year: Discussion of the standards of taste (including experiments in group judgments), the individual and social function of art, emotion, imagination, etc. Study of certain principles of beauty in the visual arts.

Second half-year: Discussion of 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.

146A-146B. Fundamental Problems. (3-3) Yr. (Credit A, B)

Professor RIEBER, Assistant Professor MACKAY

First half-year: A presentation of such problems as have been outstanding through the history of thought, with an analysis of representative answers. Certain epistemological, ethical, and religious questions growing out of the general queries: "What can we know?", "What ought we to do?", "What may we hope for?"

Second half-year: Some literary expressions of these philosophical problems.

PHYSICAL EDUCATION FOR MEN

FREDERICK W. COZENS, M.A., Assistant Professor of Physical Education
and Director of Physical Education for Men.

JAMES J. CLINE, A.B., Associate in Physical Education for Men.

PAUL FRAMPTON, Associate in Physical Education for Men.

HARRY TROTTER, Assistant in Physical Education for Men.

———, Associate in Physical Education for Men.

———, Associate in Physical Education for Men.

WILLIAM J. NORRIS, M.D., Physician for Men.

E. R. WARE, M.D., Assistant Physician for Men.

PRELIMINARY STATEMENT

Gymnasium Suit Fee.—All male students unless excused from physical education by formal petition are required to pay a gymnasium suit fee of \$5 at the time of 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. The department provides for the laundry of suits.

Medical Examination.—All students entering or re-entering the Southern Branch are required to pass a medical examination. Men showing abnormality of bodily conformation or physical defects of any sort are classed as "special" and are given individual work and advice based upon the data of the medical and physical examinations.

Students failing to qualify for the R. O. T. C. on account of physical disability are required, in addition to their regular work in physical education, to take courses 2A-B-C-D.

Plan of Prescribed Work.—Intrants are classified for their prescribed work on the basis of posture and physical efficiency, determined through tests of health, strength, endurance, agility, ability to swim and skill in self-defense. Men may qualify for the athletic division by passing these physical efficiency tests at the beginning of each semester and may then take regular work in any type of sport offered in a particular semester. Men failing so to qualify but not found defective in any essentials of health or bodily conformation will be assigned to work adapted to their special needs. This will include work in gymnastic agility, defense, track agility and swimming. The aim of the department is to promote men as quickly as possible into the athletic division.

Requirements.—Students are required to take two hours per week for four semesters ($\frac{1}{2}$ unit credit per semester).

Announcement of the Southern Branch

Majors in the Teachers College.—Men whose major is physical education should consult the suggested schedules for Physical Education under the heading Curricula—The Teachers College in this announcement.

Notices concerning all phases of the work of the department will be posted on the bulletin board of the Men's Gymnasium and should be read carefully by all.

1. Hygiene. (1) Either semester. (Credit A, B) S, 8. Dr. NORRIS
- 1A-B-C-D. Gymnastics. (½) Either semester. (Credit A, B)
Mr. FRAMPTON
- 2A-B-C-D. Special Gymnastics. (½) Either semester. (Credit A, B)
M F, 1. Assistant Professor COZENS
Corrective gymnastics.
- 3A-B-C-D. Track. (½) Either semester. (Credit A, B) Mr. TROTTER
Class work in the fundamentals of running, jumping, hurdling, vaulting, and weight throwing. Open also to men enrolled on the varsity or freshman squads.
- 4B-D. Baseball. (½) II. (Credit A, B) —
Open to men enrolled on the varsity or freshman squads.
- 5A-B-C-D. Basket-ball. (½) Either semester. (Credit A, B) —
Open to men enrolled on the varsity or freshman squads.
- 6A-B-C-D. Tennis. (½) Either semester. (Credit A, B) —
All men enrolled in tennis must pass the tests of the department unless they are enrolled on the varsity or freshmen squads.
- 7A-B-C-D. Boxing. (½) Either semester. (Credit A, B) Mr. CLINE, —
- 8A-B-C-D. Wrestling. (½) Either semester. (Credit A, B)
Assistant Professor COZENS, Mr. CLINE, —
- 9A-B-C-D. Fencing. (½) Either semester. (Credit A, B) —
- 10A-B-C-D. Swimming. (½) Either semester. (Credit A, B) —
- 13A-C. American Football. (½) I. (Credit A, B)
M Tu W Th F, 4, 5. Mr. CLINE, Mr. TROTTER, —, —
Open to men enrolled on the varsity or freshman squads.

- 15A-B-C-D. Handball. (1) Either semester. (Credit A, B)
Assistant Professor COZENS
Open to fourth semester men who have passed tests.
Tournaments under supervision. Classes limited to 16 men.
- 29A-B-C-D. Practice in Athletic Activities. (1-1) Yr. (Credit B)
Assistant Professor COZENS
Required of physical education majors in their first and second years of work.
- 30A-B-C-D. Practice in Athletic Activities. (1-1) Yr. (Credit B)
Assistant Professor COZENS
Required of physical education majors in their third and fourth years of work.
131. Organization and Management of School Playgrounds. (2) I.
(Credit A, B) Assistant Professor COZENS
154. The Coaching of Elementary School Sports. (2) I. (Credit B)
M W, 8. Assistant Professor COZENS
Special technique required in the teaching of soccer, basket-ball, baseball, and track and field events. Designed to meet the needs of both men and women teaching physical education in the elementary school.
- 155A-155B. Methods and Practice in Teaching Gymnasium Activities.
(2-2) Yr. (Credit B) Mr. FRAMPTON
Prerequisite: courses 1A, 7A, 8A, or equivalent training.
- *156A-156B. Methods and Practice in Coaching Athletics. (2-2) Yr.
(Credit B) Assistant Professor COZENS
Prerequisite: courses 3A, 4A, 5A, 13A, 30AB, or equivalent training.

* Not to be given 1924-25.

PHYSICAL EDUCATION FOR WOMEN

RUTH V. ATKINSON, B.S., Assistant Professor of Physical Education for Women and Director of the Women's Gymnasium.

LUCILE R. GRUNEWALD, B.S., Assistant Supervisor of Physical Education for Women.

BERTHA HALL, Associate in Physical Education for Women.

EMILY D. JAMESON, A.B., Associate in Physical Education for Women.

EDITH R. HARSBERGER, A.B., Associate in Physical Education for Women.

DOROTHY S. GIBLING, A.B., Associate in Physical Education for Women.

LAURA SHARP, Associate in Physical Education for Women.

EFFIE SHAMBAUGH, A.B., Associate in Physical Education for Women.

CORA E. ECKERT, M.A., Associate in Physical Education for Women.

MARION SHEPARD, A.B., Associate in Physical Education for Women.

FLORENCE E. SUTTON, Associate in Physical Education for Women.

MARTHA DEAN, A.B., Associate in Physical Education for Women.

INA THACH, Associate in Physical Education for Women.

RUBY I. MCLINN, R.N., Associate in Physical Education for Women.

MARJORIE FORCHEMER, B.S., Assistant in Physical Education for Women.

KATHERINE CLOSE, M.D., Lecturer in Hygiene.

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

I. Required courses in Physical Education for the students registered in the College of Letters and Science:

Physical Education 52A (Gymnastics and Games), 52B (Folk Dancing), 52C (Natural Dancing), 52D (Athletics).

II. Required courses in Physical Education for students registered in the Teachers College:

A. Practical work ($\frac{1}{2}$ unit each semester first two years).

Choice of Physical Education 60A (Folk Dancing), 61A (Natural Dancing), 71 (Athletics), 75 (Tennis), 76 (Swimming).

B. Theory in Physical Education.

Physical Education 10A, B (for General Professional), 14A, B (for Art and Music) 12A, B (Kindergarten-Primary).

III. For requirements for the major students in the Department of Physical Education see complete curricula on page 90 of this bulletin.

2. Hygiene. (2) Either semester. (Credit A, B) M F, 1 Dr. **TITCOMB**
5. First Aid. (1) I. (Credit A, B) Tu, 2; Th, 2. Mrs. **McLINN**
- 10A, B. Physical Education. (2) Either semester. (Credit B)
Miss **JAMESON**, Miss **SHEPARD**, Miss **SHAMBAUGH**
A. The theory and practice of physical education for the elementary school. Practice teaching in own classes and with children on the playgrounds.
B. Theory and practice of physical education in the secondary schools with special emphasis on hygiene teaching.
- 12A, B. (2-2) Yr. (Credit B) Miss **HALL**
Theory and practice in physical education activities suited to the needs of the kindergarten and lower grades. Opportunity for practice teaching, brief survey of problems of hygiene.
- 14A, B. Physical Education. (2) Either semester. (Credit B)
Miss **SHEPARD**, Miss **SHAMBAUGH**, Miss **DEAN**
A. Theory and practice of physical education for the elementary schools as applicable particularly to students in the Departments of Art and Music.
B. Theory and practice of physical education for the secondary schools, festivals, and pageants.
- 50A, B. Gymnastics (1-1) (Credit A, B) Miss **HARSHBERGER**
- 51A, B. Gymnastics with Self-testing Activities. (1-1). (Credit A, B)
Miss **HARSHBERGER**
- 52A. Gymnastics and Games. (1). (Credit A)
Miss **HARSHBERGER**, Miss **ECKERT**, Miss **SHAMBAUGH**, —
Prescribed course for freshmen in College of Letters and Science.
- 52B. Folk Dancing. (1). (Credit A)
Prescribed course for freshmen in College of Letters and Science.
- 52C. Natural Dancing. (1). (Credit A)
Prescribed course for sophomores in College of Letters and Science.
- 52D. Athletics. (Choice of athletic games or tennis). (1). (Credit A)
Prescribed course for sophomores in College of Letters and Science.

NOTE.—Juniors and seniors in the College of Letters and Science may elect 60B, 61B, 71, 75, or 76.

53. Individual Gymnastics. (1). (Credit A, B)

Miss GRUNEWALD and Staff

Required of all students whose medical or physical examination indicates the need of restrictive or corrective exercises. This fulfills the one-half unit of physical education requirement for both Teachers College and the College of Letters and Science.

60A-60B. Folk Dancing. (1-1/2). (Credit A, B)

Miss SHAMBAUGH

Open to Teachers College students.

60C. Folk Dancing. (1). (Credit A, B)

Miss DEAN

Prerequisite: course 60B.

61A-61B. Natural Dancing. (1-1/2). (Credit A, B)

Miss HALL, Miss DEAN

Open to Teachers College students.

Fundamental rhythms of childhood with simple pattern dances.

61C. Natural Dancing. (1). (Credit A, B)

Miss DEAN

Prerequisite: course 61B.

62A-B. Folk and Clog Dancing. (1-1/2) Yr. (Credit A, B)

Miss DEAN

Prerequisite 60C.

70A. Hunting Games. (1). (Credit B)

Miss GRUNEWALD

70B. Rhythmic Plays and Dramatic Games. (1) (Credit B)

Miss HALL

70C. Athletic Games Preparatory to Major Sports. (1). (Credit B)

Miss GRUNEWALD

71. Athletics for Students in Teachers College. (1) Either semester.
(Credit B)

—, Miss GIBLING, Miss SHEPARD, Miss SHAMBAUGH, Miss ECKERT,
Miss HALL.

Choice of major or minor field sports.

72A, B, C, D. Athletics for Major Students in the Department of Physical
Education. (1) Either semester. (Credit B)

See special curricula on page 89.

75. Tennis. (1) Either semester. (Credit A, B)

Miss SUTTON, Miss SHAMBAUGH, Miss ECKERT

Open to students in Teachers College.

76. Swimming. (1) Either semester. (Credit A, B)

Open to students in Teachers College.

- 121A. Methods of Teaching Physical Education in the Elementary Schools.
(2) I. (Credit A, B) Assistant Professor ATKINSON
Lectures in this course deal with the subject matter in physical education for the elementary schools with reference to the development and needs of the child. Practice in selecting and teaching material.
Prerequisite: Psychology 30, Physical Education 58.
- 121B. Methods of Teaching Physical Education in the Secondary Schools.
(Credit A, B). Assistant Professor ATKINSON
Prerequisite: Physical Education 121A.
147. Health Education and the Teaching of Hygiene. (2) I (Credit A, B)
Tu Th, 10. Assistant Professor ATKINSON, Miss HALL
Prerequisite: junior standing.
149. Kinesiology. (3) I. (Credit A, B) Miss JAMESON
- 151A, B. Theory of Gymnastics with Practice Teaching. (1-1). (Credit B)
Tu Th, 9. Miss HARSHBERGER
- 161A, B. Theory of Dancing with Practice Teaching. (1-1). (Credit B)
M W F, 8. Miss DEAN
Lectures and practice, study of the festival and pageant.
Prerequisite: courses 61C and 62B.
- 172A, B. Theory of Athletics. (1-1). (Credit B) —
Sport technique covering major sports and Decathlon.
- 173A, B. Theory of Athletics. (1-1). (Credit B) —
Sport coaching and administration.
180. Principles and Administration of Physical Education. (3) I.
(Credit A, B) Assistant Professor ATKINSON
Prerequisite: Physical Education 121.
- 182A-182B. Therapeutic Gymnastics. (3-3). (Credit A, B)
Tu Th, 11. Miss GRUNEWALD
A. Study of the posture and etiology and treatment of orthopedic conditions. B. Study of anthropometry, massage and treatment of remedial conditions.
Two hours of clinic per week. Prerequisite: Physical Education 149.
- 190A-190B. Physiology. (3-3). (Credit A, B) Dr. CLOSE
A. General Physiology. B. Physiology of exercise.
Prerequisite: Zoology 35.
- NOTE.—Physiology 1 will substitute for Physical Education 190A after the fall of 1924.
- 192A-192B. Normal Diagnosis. (3-3). (Credit A, B) Dr. CLOSE
M W F, 10.
Prerequisite: Physical Education 190A-190B.

PHYSICS

_____, Professor of Physics.

JOHN MEAD ADAMS, Ph.D., Associate Professor of Physics.

LAURENCE ELLSWORTH DODD, Ph.D., Associate Professor of Physics.

HIRAM W. EDWARDS, Ph.D., Associate Professor of Physics.

VERN O. KNUDSEN, Ph.D., Assistant Professor of Physics.

J. W. ELLIS, Ph.D., Instructor in Physics.

ARTHUR H. WARNER, A.B., B.S., Associate in Physics.

Courses 1A-1B to 4A-4B are fundamental and designed to meet the needs of students preparing for applications of physics in the Colleges of Engineering, Chemistry, and Medicine, or for advanced work in the subject itself.

Preparation for the Major.—Required: Physics 2A-2B, 3C-3D, or their equivalents. In special meritorious cases Physics 3A-3B may be accepted in lieu of 3C-3D. Chemistry 1A-1B, Mathematics CA, 3A-3B, or their equivalents. Recommended: a reading knowledge of French and German.

The Major.—Twenty-four units of upper division work are required. Courses 105A-105B, 108B, and either 110A-110B or 107A-107B must be included. At least four units of upper division laboratory work in physics must be included. Certain upper division courses in related departments may be offered in partial satisfaction of the 24 unit requirement.

Laboratory Fees.—The laboratory deposit for all lower division courses (1A-1B, 3A-3B, 3C-3D, 4A-4B, 11) is \$5 per half-year; the fee is \$4 per half-year. The deposit for all upper division laboratory courses (107A-107B, 108A-108B) is \$5 per unit per half-year; the fee is \$3 per unit per half-year.

LOWER DIVISION COURSES

Prerequisite for all lower division courses: 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.

1A-1B. General Physics. (3-3) Yr. (Credit A)

Associate Professor ADAMS and Staff

Lectures, Tu Th, 11; quiz and laboratory, 3 hours.

Mechanics, sound and heat. For students in engineering and architecture only.

- 2A-2B. General Physics. (3-3) Yr. (Credit A, B)
Associate Professor EDWARDS, Mr. ELDER
Lectures, M W, 11; quiz, 1 hour.
Mechanics, sound, heat, light, electricity. For pre-medical students.
Open to other students who are taking Physics 3A-3B.
- 3A-3B. Physical Measurements. (1-1) Yr. (Credit A, B)
Associate Professor EDWARDS, Mr. ELDER
For pre-medical students. Open to other students who are taking
Physics 2A-2B.
- 3C-3D. Physical Measurements. (2-2) Yr. (Credit A) —
Primarily for students whose major subject is physics.
- 4A-4B. General Physics. (3-3) Yr. (Credit A).
Associate Professor DODD, Mr. WARNER
Lectures, Tu Th, 9; laboratory, 3 hours.
Electricity and light. For students in engineering.
5. Magnetism and Electricity. (3) II. (Credit A) Mr. WARNER
Preparatory to courses in electrical engineering.
Prerequisite: Physics 4A, Mathematics 4A.
11. Physics of the Household. (3) I. (Credit B) Tu Th, 8. Dr. ELLIS
Intended primarily for students in home economics.
12. The Physical Basis of Music. (3) I. (Credit A, B)
M W F, 8. Associate Professor DODD
Lectures and experimental demonstrations.

UPPER DIVISION COURSES

Prerequisite for all upper division courses: Physics 2A-2B, 3A-3B,
Mathematics 3A-3B, or the equivalents.

- 104A-104B. Introduction to Mathematical Physics. (2-2) Yr. (Credit A, B)
Dr. ELLIS
- *105A-105B. Analytic Mechanics. (3-3) Yr. (Credit A, B)
Associate Professor EDWARDS
The statics and the dynamics of particles and rigid bodies.

* Not to be given 1924-25.

- 107A-107B. **Electrical Measurements.** (3-3) Yr. (Credit A, B)
Assistant Professor **KNUDSEN**
Lectures and laboratory work. Prerequisite: **Physics 4A.**
- 108A. **Geometrical Optics.** (3) I. (Credit A, B)
Associate Professor **DODD, Dr. ELLIS**
Lectures, demonstrations and laboratory work.
- 108B. **Physical Optics.** (3) II. (Credit A, B)
Associate Professor **DODD, Dr. ELLIS**
Lectures, demonstrations and laboratory work dealing with diffraction, interference, polarization, and their applications.
- 110A-110B. **Electricity.** (2-2) Yr. (Credit A, B)
Associate Professor **EDWARDS**
Elementary mathematical theory of electricity and magnetism.
111. **Modern Physics: Methods, Results and Interpretations.** (3) I.
(Credit A, B) M W F, 11. Associate Professor **ADAMS**
A general view of the progress of physics in the last twenty-five years. Lectures and reading.
- 112B. **Heat.** (2) II. (Credit A, B)
Kinetic theory and thermodynamics.

POLITICAL SCIENCE

_____, Professor of Political Science.

CHARLES E. MARTIN, Ph.D., Associate Professor of Government.

MALBONE W. GRAHAM, Ph.D., Assistant Professor of Government.

MILLER MCCLINTOCK, Ph.D., Assistant Professor of Political Science.

ORDEAN ROCKEY, A.B., Instructor in Political Science.

CLARENCE A. DYKSTRA, A.B., Lecturer in Municipal Government.

MARSHALL FRANCIS McCOMB, A.B., LL.B., Lecturer in Government.

Subject Groups and Prerequisites.—Instruction in the department falls into four main groups: I. Political Theory; II. International Relations; III. National Government; IV. Local Government.

For upper division courses the usual prerequisites are Political Science 1A-1B and one of the following: Political Science 2A-2B, Economics 1A-1B, History 4A-4B, History 5A-5B.

Sequences.—In each of the four groups a sequence of courses is established for the junior and senior years:

Group	Junior	Senior
I	112, 113	115
II	125A, 125B	133A, 133B
III	151, 152	157
IV	162, 171	163

Enrollment in one of these sequences is a condition precedent to admission to upper division courses for all students seeking a major in political science.

The Major.—Candidates for the bachelor's degree with political science as a major must offer at least 24 units in upper division courses, not more than six of which may be taken in some other department (see "recommended courses"). Major programmes must be approved by the department.

Programmes must include a sequence in one group and at least three units in each of the remaining groups.

Honors.—Students seeking honors in political science must register with the departmental representative in charge of honors students at the beginning of their junior year. A check is made on the progress of the student at the end of each semester. A final oral examination is given at the end of the senior year.

Jurisprudence forms a separate section under the Department of Political Science.

LOWER DIVISION COURSES

- 1A. Comparative Government. (3) I. (Credit A, B)
 M W, 10, and 1 hour quiz. Associate Professor MARTIN
 Prerequisite with 1B to all upper division courses in the department.
 The government and parties of Great Britain and her self-govern-
 ing dominions and the United States.
- 1B. Comparative Government. (3) II. (Credit A, B)
 Associate Professor MARTIN
 Prerequisite to all upper division courses in the department.
 The governments of Switzerland, Germany, France, Belgium, Italy,
 Czechoslovakia, Russia, Japan, and Mexico.
- 2A. Principles and Problems of Politics. (3) I. (Credit A, B)
 Tu Th, 9, and 1 hour quiz. Assistant Professor GRAHAM
 A study of the origin, form, functions, and nature of the state; its
 relation to individuals, to other states, and to other social institutions.
- 2B. The Problems of Democracy. (3) II. (Credit A, B)
 Assistant Professor GRAHAM
 A consideration of problems peculiar to and growing out of the
 modern democratic state; problems of the electorate and of parties;
 popular methods of legislation.
50. American Government. (3) Either half-year. (Credit A, B)
 M W F, 9; M W F, 11; Tu Th S, 9; Tu Th S, 11.
 The STAFF (Assistant Professor McCLINTOCK in charge)
 An elementary study of the American government and its political
 institutions; colonial origins; the constitutional system; the President
 and executive departments; the Congress; the courts; political parties;
 elections and foreign relations.
 Required of students in the Teachers College. This course satisfies
 the requirements for instruction in the Constitution of the United
 States for students in the Teachers College only.

UPPER DIVISION COURSES

Prerequisite: Political Science 1A, 1B, and one of the following courses: Political Science 2A-2B, Economics 1A-1B, History 4A-4B.

Prescribed Course on the Constitution and American Institutions and Ideals

101. American Institutions. (2) Either half-year. (Credit A, B)
 Tu Th, 8; Tu Th, 10. The STAFF (Mr. McCOMB in charge)
 The fundamental nature of the American constitutional system and of the ideals upon which it is based.
 Required of all students in the College of Letters and Science during their junior or senior years, except students who take Political Science 151 (American Government), Political Science 113 (American Political Ideas), and students in the Teachers College who take Political Science 50 or History 7A.

Group I—Political Theory

112. Evolution of Government and Political Ideas. (3) I. (Credit A, B)
 Tu Th S, 11. —
 A comparative study of ancient and modern ideas and institutions of government and statehood.
113. American Political Ideas. (3) II. (Credit A, B) —
 American political theories and the fundamental characteristics of the American political system.
115. History of Political Theories. (3) II. (Credit A, B) —
 The development of political thought as exhibited in great state papers, leading decisions, and political and legal treatises of first importance.

Recommended Courses Given Outside the Department

- Advanced Economic Theory (Economics 100).
 Ethics (Philosophy 104A-104B).
 Plato (Philosophy 116).
 Social Psychology (Psychology 145A-145B).
 The Development of Ancient Civilizations (History 111A-111B).

Group II—International Relations

125A-125B. Foreign Relations of the United States. (3-3) Yr.

(Credit A, B) M W F, 11. Associate Professor MARTIN

Leading American foreign politics as regards Europe, Latin America and the Far East; the administration of American foreign relations; American participation in international administrative and judicial agencies.

133A-133B. Introduction to International Law. (3-3) Yr. (Credit A, B)

M W F, 8. Associate Professor MARTIN

The concepts of peace, war, and neutrality and their growth through practice; peaceful methods for the settlement of international disputes; distinctive American contributions to the law of nations.

Recommended Courses Given Outside the Department

The French Revolution (History 142).

Ethics (Philosophy 104A-104B).

Geography of Europe (Geography 122).

Geography of Latin America (Geography 123).

Geography of Asia (Geography 124).

Group III—National Government

151. American Government. (3) II. (Credit A, B) —

Formation and development of the American constitutional system; government under the colonies; the executive; the Congress; the courts; parties and elections; evolution through decisions of the courts and political practice.

152. American Political Parties. (3) I. (Credit A, B) —

American party history; federal and state party organization; the electorate; nominations and elections; the direct primary; party control of the legislature; the President as party leader; theory of American party divisions; American public opinion; the rise of *blocs*.

156. Principles and Problems of Public Administration. (3) I. —

(Credit A, B)

Principles governing the public service; relation between politics and administration; functions of administrative agencies; the executive in federal, state, and local governments; administrative problems.

157. Introduction to Constitutional Law. (3) II. (Credit A, B) —

The American constitutional system; the American judiciary; powers of the federal governments; the states and the nation; the rights and duties of citizens; fundamental American constitutional doctrines. Prerequisite: senior standing, or the consent of the instructor.

Recommended Courses Given Outside the Department

History of the British Empire (History 155A-155B).

Civic Education (Education 180).

The French Revolution (History 142).

*Group IV—Local Government*162. Municipal Government. (2). (Credit A, B). Mr. DYKSTRA
Tu Th, 8.

History and growth of cities; forms of city government; the municipal council and courts; the city and the state; the charter; recent reforms in municipal government; issues in municipal government today.

*163. Municipal Administration. (2) II. (Credit A, B) Mr. DYKSTRA

The mayor; the city departments; the city employees; the civil service; municipal functions and problems.

171. American State Government. (2) I. (Credit A, B)

Assistant Professor McCLINTOCK

Colonial origins; the state constitutions; the state legislatures; relation of the state to the nation; relations between states; the states and law; growth of popular methods of legislation; political reconstruction of state governments.

Recommended Courses Given Outside the Department

Elementary Statistics (Economics 131).

Administration of Public Education (Education 148).

JURISPRUDENCE10A-10B. Elementary Law. (3-3) Yr. (Credit A, B) Mr. McCOMB
M W F, 8.

A consideration of the elementary principles of the common law, as modified by statutes and judicial decisions of this state, with special reference to the definition of law, jurisdiction, personal relations, and the classification of estates.

18A-18B. Commercial Law. (2-3) Yr. (Credit A, B) —

* Not to be given, 1924-25.

PSYCHOLOGY

_____, 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., Instructor in Psychology.

Preparation for the Major.—Required: Psychology 2 and Zoology 1A,
1B. Recommended: French, German, chemistry, physics.

The Major.—Required: Psychology 106, 107A, and 12 units in other upper division courses in psychology. The remaining six units may be chosen from courses in psychology or from the following, subject to the approval of the department: Any upper division course in philosophy; Zoology 103; Education 175.

LOWER DIVISION COURSES

X. The Psychology of Study. (1) Either semester. (Credit A, B)
Tu, 8; Th, 8. Professor MOORE

2A. General Psychology. (3) I. (Credit A, B) The STAFF
Tu Th S, 9; M W F, 10; M W F, 2.

This course is prerequisite to all other courses in psychology. It is not open to freshmen, but is open to sophomores without prerequisite.

An account of the development of consciousness and behavior, including reflex, instinctive, emotional, and random tendencies; conditioned reflex; learning and habit formation; sensation, perception, imagination, memory, reasoning, and volition.

Lectures, readings, demonstrations, and group experiments.

2B. Advanced General Psychology. (3) II. (Credit A, B)
Assistant Professor FISHER, Miss SULLIVAN

Prerequisite: Psychology 2A.

More detailed treatment of special topics; attention, reasoning, emotion, attitude, purpose, volition, etc. Survey of points of view, methods of study, psychological problems.

Lectures, readings, laboratory exercises.

30. Educational Psychology. (3) Either semester. (Credit B)
Tu Th S, 10; M W F, 12. The STAFF
Discussion of the inherited forms of behavior, modification of original tendencies, the learning curve, emotions and attitudes, memory, analysis of the thought process, etc.
Lectures, readings, demonstrations, laboratory exercises.

UPPER DIVISION COURSES

General prerequisite: Psychology 2A is prerequisite to all upper division courses.

- 106A-106B. Introduction to Psychological Experiments. (3-3) Either semester. (Credit A, B) Assistant Professor FISHER
The methods and typical results in the experimental psychology of sensation, perception, emotion, movement, attention, fatigue, memory, imagination, thought, and habit.

- 107A-107B. Introduction to Psychological Measurement and the Use of Statistics. (3-3) Yr. (Credit A, B)

Associate Professor FERNALD, Miss SULLIVAN

First semester: A study of the standard intelligence tests and their application.

Second semester: Elaboration of statistical methods and their use in relation to psychological problems, including illustrations and problems from the field of experimental psychology and from the fields of educational and mental tests.

126. Psychology of Special School Subjects. (3) I. (Credit B)
M W F, 11. Associate Professor FERNALD

An analysis of the psychological processes involved in learning to write, read, solve problems in mathematics, grasp the meaning of history, geography, natural science, and other school subjects. Emphasis will be placed upon so applying psychological principles to school procedure as to avoid failures among children of normal mentality.

- 140A-140B. Psychological Experiment: Advanced. (3-3) Yr.
(Credit A, B) The STAFF

Prerequisite Psychology 106 and 107A.

Students will undertake special problems selected with reference to their special interests and under the direction of the special instructor in whose field their interest lies.

145A-145B. Social Psychology. (2-2) Yr. (Credit A, B) Tu Th, 1.

Assistant Professor FISHER, Associate Professor GORDON

Prerequisite: Psychology 2A. Recommended Psychology 2B.

First semester: The instinctive and the higher mental processes that are the basis of social life; the behavior of men in groups. Lectures, reading, and discussion.

Second semester: Adjustment and maladjustment. Race, intelligence, and psychic stability as factors in national unity. Lectures, discussions, readings, and clinical demonstrations.

166A-166B. Clinical Psychology. (3-3) Yr. (Credit A, B)

M W F, 3.

Associate Professor FERNALD

A study of the problems connected with the atypical child, including the discussion of mental deficiency, abnormality, genius, emotional instability. Special emphasis is placed on the methods by which such children may be developed to a maximum of efficiency.

SPANISH

S. L. MILLARD ROSENBERG, Ph.D., Associate Professor of Spanish.

L. D. BAILIFF, Ph.D., Assistant Professor of Spanish.

ADOLFO JORDÁ, Lic. en Fil. y Letras, Instructor in Spanish.

MANUEL PEDRO GONZÁLEZ, Ph.D., Instructor in Spanish.

ANNA KRAUSE, M.A., Associate in Spanish.

JOHN HARTMAN, M.A., Associate in Spanish.

LUCIO A. VILLEGAS, Doctor en Derecho, Associate in Spanish.

CÉSAR BARJA, Doctor en Derecho, Lecturer in Spanish.

MARÍA LOPÉZ DE LOWTHER, B.S., M.A., Lecturer in Spanish.

PREPARATION FOR THE MAJOR

(1) Spanish A, B, C, D, or four years of high school Spanish. (2) A minimum of two years of Latin in the high school. Those unable to fulfill this requirement must offer compensatory courses in other Romanic languages and European history. (3) Only students who pronounce correctly and read fluently will be admitted to upper division courses. Transfers from other institutions will be tested by oral examination. (4) English 1A-1B, or an equivalent.

The prerequisites for the various lower division courses are listed under these courses. Students whose high school record seems to warrant may by examination establish their right to take a more advanced programme; or, they may be transferred to a more advanced course upon recommendation of the instructor.

THE MAJOR

Required: Spanish 106A-106B and 107A-107B. The remaining 12 units may include not more than 6 units of upper division work in either French or Latin, or may be completed from other upper division courses in Spanish.

The department recommends supplementary choice of electives from the following: history of country or countries related to the major; Latin; related literature courses; English; history of philosophy; German; Greek.

Honors.—Distinguished work in 24 units of upper division courses, as outlined in the major, will be required.

LOWER DIVISION COURSES

- A. Elementary Spanish. (5) Either semester. (Credit A, B).
 M Tu W Th F, 8; M Tu W Th F, 9; M Tu W Th F, 10; M Tu W Th F, 11; M Tu W Th F, 12; M Tu W Th F, 2; M Tu W Th F, 3.
 Associate Professor ROSENBERG in charge
 The equivalent of the high school course in elementary Spanish. Students completing course A after having had one year of Spanish in high school will receive two units in addition to the matriculation credit.
- B. Elementary Spanish. (5) Either semester. (Credit A, B)
 M Tu W Th F, 9; M Tu W Th F, 10; M Tu W Th F, 12; M Tu W Th F, 8.
 Associate Professor ROSENBERG in charge
 Prerequisite: course A or two years of high school Spanish.
 The equivalent of the high school course in intermediate Spanish.
- C. Intermediate Spanish. (3) Either semester. (Credit A, B)
 M W F, 8; M W F, 12; Tu Th S, 9.
 Associate Professor ROSENBERG in charge
 Prerequisite course B or three years of high school Spanish.
 The equivalent of the high school course in advanced Spanish.
- D. Intermediate Spanish. (3) Either semester. (Credit A, B)
 M W F, 11; M W F, 12; M W F, 3; Tu Th S, 8.
 Associate Professor ROSENBERG in charge
 Prerequisite course C or its equivalent.
- CD. Intermediate Spanish. (5) II. (Credit A, B) —
 Prerequisite: course B or three years of high school Spanish.
 Students who have a satisfactory high school record in two years of Spanish may be admitted to CD by special permission.
- 25A-25B. Commercial Spanish. (3-3) Yr. (Credit A, B) Dr. VILLEGAS
 M W F, 8; M W F, 2.
 Prerequisite: courses A and B, or their equivalent.
 Credit for this course will be allowed only to students in the College of Commerce.
45. Grammar Review, Composition, Reading. (3) II. (Credit A, B) —
 For students entering the second semester with four years of high school Spanish.

- 50A-50B. Conversation and Composition. (3-3) Yr. (Credit A, B)
 M W F, 11. Miss KRAUSE
 For students who have had C-D, CD, or four years of high school Spanish. Designed especially for Spanish majors. Grade A, B, C, or equivalent in previous language work.

UPPER DIVISION COURSES

Prerequisite: 16 units of lower division Spanish, or the equivalent.

- 101A-101B. Conversation and Composition. (3-3) Yr. (Credit A, B)
 Tu Th S, 10. Dr. GONZÁLEZ

Prerequisite: the equivalent of 16 lower division units.
 A required course for upper division students.

- 103A-103B. Nineteenth Century Literature. (3-3) Yr. (Credit A, B)
 M W F, 12. Assistant Professor BAILIFF

Prerequisite: the equivalent of courses C, D, or four years of high school Spanish, or a special examination.

Survey of drama, novel, essay, and lyric, from the Romantic period to 1890. Lectures and reading.

- 104A-104B. Spanish-American Literature. (3-3) Yr. (Credit A, B)
 M W F, 11. Mrs. LOWTHER

Prerequisite: same as for 103A-103B.
 A study of the principal authors of Spanish America.

- 105A-105B. Modern Drama. (2-2) Yr. (Credit A, B)
 Tu Th, 12. Associate Professor ROSENBERG

Prerequisite: same as for 103A-103B.
 Plays of the later nineteenth and twentieth centuries.

- 106A-106B. Advanced Composition. (3-3) Yr. (Credit A, B) Mr. JORDÁ
 Prerequisite course 101A-101B. Open only to students whose major is Spanish. M W F, 3.

- 107A-107B. Survey of Spanish Literature to 1800. (3-3) Yr. (Credit A, B)
 M W F, 12. Dr. BARJA

Prerequisite: Spanish 103A-103B and 105A-105B or their equivalent.
 Lectures, reading of selected texts and reports on outside reading.

190. Course for Teachers. (2) Either semester. (Credit A, B)
 Tu Th, 8. Associate Professor ROSENBERG
 Prerequisite Spanish 101A-101B and 103A-103B, the latter being permitted concurrently.

ZOOLOGY

See Biology.

TRAINING DEPARTMENT**STAFF IN SOUTHERN BRANCH TRAINING SCHOOL**

- CHARLES WILKIN WADDELL, Ph.D., Professor of Education and Director of the Training Schools.
- THOMAS E. THOMPSON, A.B., Assistant Supervisor of Training and Vice-Principal of the Junior High School.
- ETHEL I. SALISBURY, M.A., Assistant Supervisor of Training and Associate Professor of Elementary Education.
- FRANCES GIDDINGS, A.B., Assistant Supervisor of Training.
- BERTHA E. WELLS, Assistant Supervisor of Training.
- KATHERINE SPIERS, M.A., Assistant Supervisor of Training.
- HELEN B. KELLER, Training Teacher, Mathematics.
- NIÑO BROWN, B.L., Training Teacher, Social Sciences.
- MABEL C. JACKSON, M.A., Training Teacher, English.
- EMMA J. ROBINSON, Training Teacher, Sixth Grade.
- HELEN F. BOUTON, Ed.B., Training Teacher, Fifth Grade.
- BESSIE WINSTON HOYT, Ph.B., in Ed., Training Teacher, Fourth Grade.
- EDITH HOPE RINGER, Training Teacher, Third Grade.
- EDITH WALLOP SWARTS, Training Teacher, Second Grade.
- VIVIAN EVANS, B.S., Training Teacher, First Grade.
- ETHEL BRITTO, A.B., Training Teacher, Kindergarten.
- BARBARA GREENWOOD, Training Teacher, Kindergarten.
- ELIZABETH BRUENE, M.A., School Counselor.
- LULU STEDMAN, Ed.B., Training Teacher, Opportunity Rooms.
- MADELINE CROWELL, B.S., Training Teacher, Home Economics.
- BLANCHE KELLS, Training Teacher, Physical Education.
- ALICE HUBARD, A.B., Training Teacher, Spanish and French.
- CHARLES A. LAMB, Teacher of Printing.
- RUBY T. BLYTHE, R.N., School Nurse.

STAFF IN CITY TRAINING SCHOOLS

- CHARLES WILKIN WADDELL, Ph.D., Professor of Education and Director of the Training Schools.
- BERTHA E. WELLS, Assistant Supervisor of Training.
- KATHERINE SPIERS, M.A., Assistant Supervisor of Training.
- MYRTLE B. CHANDLER, A.B., Assistant Supervisor of Training and Principal, Dayton Heights.
- AUGUSTA N. SADLER, Assistant Supervisor of Training and Principal, Lockwood.

M. W. CHANDLER, Assistant Supervisor of Training and Principal, LeConte Junior High School.

BETH H. BENNING, Training Teacher, Sixth Grade, Lockwood.

SERENA P. CHRISTENSEN, Training Teacher, Eighth Grade, Lockwood.

ANNA B. CONNORS, Training Teacher, First Grade, Lockwood.

RUTH M. BAUGH, Training Teacher, Sixth Grade, Dayton Heights.

GERTRUDE C. ENFIELD, Training Teacher, Seventh Grade, Lockwood.

SYRIL HOUDYSHEL, Training Teacher, Fifth Grade, Dayton Heights.

LAVERNA LOSSING, Training Teacher, Fifth Grade, Lockwood.

ALICE M. GREER, Training Teacher, Fourth Grade, Dayton Heights.

JEANNETTE PERMAN, Training Teacher, Fourth Grade, Dayton Heights.

GERTRUDE MALONEY, Training Teacher, Fourth Grade, Lockwood.

GRACE M. TINGLEY, Training Teacher, Third Grade, Dayton Heights.

LURA SAWYER OAK, Training Teacher, Third Grade, Lockwood.

ELLEN TOY CONNORS, Training Teacher, Third Grade, Dayton Heights.

INGA MARTINSON LACY, Training Teacher, Second Grade, Lockwood.

HAZEL GLOVER, Training Teacher, Second Grade, Dayton Heights.

MARIE HOYE, Ph.B., in Ed., Training Teacher, Second Grade, Lockwood.

MARGARET ROSE CAENES, Training Teacher, First Grade, Dayton Heights.

BESS HOLDZKOM, Training Teacher, First Grade, Lockwood.

S. EDNA WILLIAMS, Training Teacher, First Grade, Dayton Heights.

ELIZABETH WHITCOMB, Training Teacher, Kindergarten, Lockwood.

ESTELLE ROYER, Training Teacher, Kindergarten, Dayton Heights.

EDNA LEE ROOF, B.L., Training Teacher, Physical Education, Dayton Heights.

HELEN LINKENS, Training Teacher, Home Economics, Lockwood and Dayton Heights.

MARY FRANCES HOLLINS, Training Teacher, Home Economics, LeConte Junior High School.

NELLIE J. SUTTER, A.B., Training Teacher, Home Economics, LeConte Junior High School.

SUSIE K. SANDERSON, Training Teacher, Non-English, First Grade, Bridge Street.

THE TRAINING SCHOOLS

Practice teaching is provided for all Teachers College students in either: (1) The University Training School, comprising two kindergartens, the elementary and junior high school grades; (2) The Lockwood and Dayton Heights elementary schools of Los Angeles city or in (3) Other elementary, junior and senior high schools of Los Angeles.

The work is done under the direction of the Director of the Training Schools and a corps of assistant supervisors and training teachers.

ASSEMBLIES

All candidates for teachers' credentials are required to attend a series of assemblies during the last semester preceding the completion of any teachers' course. These assemblies, which are in charge of the Director of the Training Schools, have to do with the student's relationship to the institution, to the Appointment Secretary, to public school officials and with matters of importance to prospective teachers.

TRAINING 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)
 A190A. Elementary Art Teaching. (3)
 A191A. Junior High School Art Teaching. (3)
 A192. Secondary Art Teaching. (4)
 C192A. Secondary Commerce Teaching. (5)
 C192B. Secondary Commerce Teaching. (5)
 H190A. Elementary Home Economics Teaching. (2)
 H190B. Elementary Home Economics Teaching. (2)
 H191. Junior High School Home Economics Teaching. (2)
 H192A. Secondary Home Economics Teaching. (2)
 H192B. Secondary Home Economics Teaching. (2)
 MA192A. Secondary Mechanic Arts Teaching. (5)
 MA192B. Secondary Mechanic Arts Teaching. (5)
 M190A. Elementary Music Teaching. (3)
 M190B. Elementary Music Teaching. (2)
 M191. Junior High School Music Teaching. (1)
 M192. Secondary Music Teaching. (4)
 P190A. Elementary Physical Education Teaching. (2)
 P190B. Elementary Physical Education Teaching. (3)
 P192A. Secondary Physical Education Teaching. (3)
 P192B. Secondary Physical Education Teaching. (2)
 P192C. Secondary Physical Education Teaching. (3)

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.

* Credit B. All courses offered either semester.

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