# University of California Bulletin FOURTH SERIES. Vol. V, No. 1 

# ANNOUNCEMENT 

OF THE

# UNIVERSITY OF CALIFORNIA SOUTHERN BRANCH 

FOR THE
ACADEMIC YEAR, 1923-24

JULY, 1923

# Administrative Bulletins of the University of California 

## Southern Branch

1023-24

## OIROULARS OF INFORMATION

For copies of this Announcement address the Students' Coöperative Bookstore, Dniversity of California, Southern Branoh, Los Angeles. Price, 20 cents; by mail, 25 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.

Letters of inquiry concerning the Coliege of Agriculture should be addressed to the Dean of the College of Agriculture, Berkeley, Callfornia.

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

The Circular of Information, Academic Departments (Oolleges of Letters and Science, Agriculture, Commerce, and Engineering, and the first two years of Medieine). Containing general information about the University, its organization, government, requirementi 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 Oniversity of California Press far 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. Pablished annually in January.
The Catalogue of Offlcers and Students. Published in September and February. Price, 25 cents; sent by mail by the Dniversity of California Press for 30 cents.
The Monthily Meteorological Synopsis of Berkeley.

## UNIVERSITY OF CALIFORNIA

## ANNOUNCEMENT OF THE <br> UNIVERSITY OF CALIFORNIA SOUTHERN BRANCH

FOR THE

ACADEMIC YEAR, 1923-24

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, Borkeley.

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

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

## HOW TO REACE THE SOUTHERN BRANOH

The Southern Branch is reached by two yellow-car lines and one redcar line:

1. Heliotrope Drive Line (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. Temple Street Line (yellow car). Leave car at Normal avenue.

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GALENDAR, 1923-1924
Fall Semester 1923

1928
Aug. 9 to 14

Sept. 3, Monday

Sept. 12, Wednesday

Sept. 13, Thursday
Sept. 14, Friday
Sept. 17, Monday
Oct. 1, Monday

Oct. 27, Saturday
Dec. 15, Saturday
Dec. 17, Monday
1924
Jan. 1, Tuesday
Feb. 2, Saturday

Jan. 7 to 11

Jan. 31, Thursday

Feb. 8, Friday

Matriculation examinations given in Berkeley only.
Applications for admission, with complete credentials, should be filed with Recorder on or 1 efore 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.
Examination in Subject A, 8:30 a.m. General intelligence test, 2:00 p.m.
Registration of new students, 8:30 to 4:00.
Registration of old students and re-intrants.
Instruction begins 8:00 a.m.
Admission after this date, only for extraordinary reasons.
Last day of first mid-term period.
Last day of second mid-term period.

Christmas Recess.
Fall semester closes.

Spring Semester 1924
Matriculation examinations given in Berkeley only.
Applications for admission in February to be filed on or before this date. Late filing fee $\$ 2.00$.
Examination in Subject A, 8:30 a.m. General intelligence test, 2:00 p.m.

Feb. 11, Monday
Feb. 12, Tuesday
Feb. 25, Monday
-
Mar. 22, Saturday
April 14, Monday April 19, Saturday $\}$
May 10, Saturday
June 7, Saturday
June 20, Friday
Third week in June

June 23, Monday July 19, Friday
June 28, Saturday
Ang. 9, Saturday $\}$
Sept. 15, Monday

Feb. 9, Saturday Registration of new students, 8:30 to 4:00.
Registration of old students and re-intrants.
Instruction begins 8:00 a.m.
Admission after this date, only for extraordinary reasons.
Last day of first mid-term period.
Spring Recess.
Last day of second mid-term period.
Alumni Day.
The Fifth Southern Branch Commencement.
College Entrance Board examinations given in Los Angeles and other cities.
Summer Course in Surveying in the vicinity of Los Angeles.

Summer Session in Los Angeles.
Instruction for 1924-25 begins.

## REGENTS OF THE UNIVERSITY

Nors.-The regular meetings of the Regents are held at 2 p.m. on the seoond Tuesday of each month, exoept July, and on the day before Commencement, at suoh places as may from time to time be determined, ordinarily at the California Sohool of Bine Arts, California and Mason streeta, San Franoisoo. The Loo Angeles offloe of the Regents is in the Junior Orphoum Bldg, 816 Hill atreet, Loa Angeles.

## REGENTS EX OFFICIO

His Excellency Frinnd W. Richardmon
Governor of California and Preaident of the Regents
Sacramento
Clemant Calmoun Youne, B.L. Lieutenant-Governor of California 2820 Regent st, Berkeley
Frani F. Mirriam
Speaker of the Assembly
Long Beach
Whe C. Wood
State Superintendent of Publio Instruotion
Sacramento

Henki Alezandir Jastro
President of the State Agrioultural Sooiety
Care, Kern County Land Co., Bakersfield
Brron Matiy
President of the Meohanics' Institute 418 Phelan bldg, San Francisoo

Culfton E. Milume, B. L. President of the Alumni Association 910 I. N. Van Nuys bldg, Los Angelen

William Wallace Caypbinll, So.D.,LL.D President of the University 217 California Hall, Berkeley

## APPOINTED REGENTS

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

Arthur Whatiam Pobiter (1932)
226 Sorthern Pacifo bldy, San Francisoo
Garret Wiluam McEnerney (1986)
2002 Hobart bldg, San Francisco
Guy Champer Earin A.B. (1934)
14 Eansome at, San Francisco
Whifan Heney Czocker, Ph.B. (1924)
Crocker National Bank, Ban Francisco
James Kenaredy Moyfryy, B.S. (1924)
41 Firat st, Ban Francisco
Chambeg Anolph Rama, B.S., M.A., B.T.B. (1928)

1100 Franklin at, Ban Francisco
IHDward A 810 Lucerne blvd, Jos Angeles
Jaye Mmis (1926) Hamilton City

Chemer Hartivy Rownll, Ph.B. (1936) 1204 Tamalpais rd, Berkeley

Monimin Flethamacker (1934)
Anglo-Californis Trust Company, Ean Francisco

Gmorger I. Cocirans, LL.D. (1930)
$B 01$ West Bixth st, Los Angeles
Mrb. Margariff Righel Sariori (1938)
725 Weat Twenty-aighth st, Lon Angeles
Joris Randolpal Hathes, Ph.D., M.D. (1938)

429 Consolidated Realty blds, Los Angeles

Andis Anderiont (1932)
Capital National Bank, Saoramento
Jay Orhat Hayes, LL.B. (1928)
808 Firat National Bank bldg, San Jose

## OFFICERS OF THE REGENTS

| His Exoellency Preaident Seoramento | riend William Richardson |
| :---: | :---: |
| Arthur William Chairman 228 Southern | Foster <br> Padic bldg. San Francisco |
| Robert Gordon Comptroller, 220 Californi | Sproul, B.S. Secretary of Regents, and Hall, Berkeley |

# Calmur John Btruble, A.B., J.D. <br> Assistant Comptroller, and Assistant Secretary of the Regents 220 California Hall, Berkeley 

## Mortimer Fleishhaoker

Treasurer
Anglo-California Trust Company, San Francisco
Jamea M. Mannon, Jr., LL.B.
Attorney
1800 Balfour bldg, Ban Francisoo

## gTANDING COMMITTEES OF THE BOARD OF REGENTS FOR THE YEAR 1923-24*

Aoricullure
Rements Foeter, Jastro, Diakson, Mills,
Cochran, and Earl.
Educational Relations:
Regents Wood, Dialion, Rowell, Ramm, and Earl.
Endowomenta:
Regenta Crooker, Mrs. Sartori, Coohran,
MoEnerney, Fleishbacker, and Haynee

## Engineering:

Regents Ramm, Fleishhaoker, and Jastro.
Exscutive Commiltee:
This committee consista of the chairmen of all standing committee and the President of the Alumni Association.

## Finance:

Regente Earl, Fostar, Moffitt, MaEnerney, Fleishhaoker, and Crooker.
Grounde and Buildings:
Regenta Mofftt, Young, Diokeon, Fleishhacker, and Ramm.
Jurisprudenos:
Regenta McEFnerney, Cochran, Miller, - Young, and Moffitt.

## Letters and Soience:

Regents Rowell, Ramm, Wood, Miller, and Mille.
Library, Research and Publicationa:
Regents Cochran, Moffit, Miller, Wood, Mausy, and Rowell.
Lich Observatory:
Regents Fleishhacker, Young, Crooker, Mauny, and Anderson.
Medical School:
Regents Crooker, Earl, Moffitt, Ramm, Mre. Sartori, and Haynee.
San Francisco War Momorial:
Regent Moffitt, Fleishhacher, and Anderson.

Southern Brapeh of the University of California and Serippe Instutution for Biological Researah:
Regents Dickson, Cochran, Miller, Mrs. Gartori, Wood, Rowell, Merriam, and Haynes.
Wilmerding Schook: Regents Earl, Moffitt, and Mausy.

[^0]
## ADMINISTRATIVE OFFIOERS

## IN BERKELET

## President Emeritus of the University: <br> Benjamin Ide Wheeler 126 Library

| Presidont of the Onivereity: | Comptroller, Secretary of the Board of Regents and Land Agent: |
| :---: | :---: |
| William W. Campbell | Regents and Land Agent: |
| 217 California Hall | Robert Gordon Sproul 220 California Hall. |
| Dean of the University: Walter M. Hart | Ascistant Comptroller and Assistant Seoretary of the Regents: |
| 217 California Hall | Oalmur John Struble 220 Californis Hall |
| Aesiotant Dean of the University: Baldwin M. Woods <br> 217 California Hall | Recorder of the Faculties: James Sutton 204 California Hall |

## IN LOS ANGHLES

| Director of the Southern Branch: | *Hedical Department: |
| :---: | :---: |
| Ernest Carroll Mcore 108 Millspaugh Hall | Dean: George H. Kress 245 Bradbury Building |
| Recorder of the Southern Branch: | Extenaton Division- |
| Lewis Adams Maverick 1014 Millspaugh Hall | Represenlative in Southern Galfornia: <br> H. S. Noble <br> 817 Junior Orpheum Building |
| Dean of the Summer Session in Los Angeles: |  |
| H. L. Bruce 815 Junior Orpheum Buijding | - |

815 Junior Orpheum Building

## I. HISTORY

## A. 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 Sau 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 aeres 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 (187581), 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 cemprehensive 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.

## B. 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 sommemorated in the name cf the main building. He was succeeded in the presidency by Dr. Frnest 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-ife), 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.

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 Calfornia, 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 Triversity, 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 Fresident 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.

## III. DEPARTMENTS OF THE UNIVERSITY

I. In Brrigeley

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 Statioa, which includes stations at Berkeley and Davis, the Deciduous Fruit Station at Mountain View, 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.
The Summer Sessions.
The California Museum of Vertebrate Zoology.
The Museum of Paleontology.

## II. At Mount Hamilyon

The Lick Astronomical Department (Lick Observatory).

III. At Santiago, Chile

Lick Observatory, Chile Station.

## 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 Anarles

The Southern Branch of the University.
The College of Letters and Science,
The Teachers College.
The Summer Course in Surveying.
Los Angeles Medical Department (graduate instruction only).
The Summer Session.
The University Extension Division.
VI. At Davis

Branch of the College of Agriculture.

## VII. At Rivgrside

The Citrus Experiment Station and Graduate School of Tropical Agriculture.

> VIII. At La Jolla

The Scripps Institution for Biological Research.

## IX. At Swanton

The Summer Course in Surveying.

## IV. OFFICERS AND FACULTY

## ADMINISTRATIVE OFFICERS

William Wallice Campbellu, Sc.D., LL.D., President of the University. Walter Morris Hart, Ph.D., Dean of the University.
Baldwin Munger Woods, Ph.D., Assistant Dean of the University.

- Ernest Carroll Mooke, Ph.D., LL.D., Director of the Southerí Branch of the University.
- Elmer E. Beckiman, a.b., Executive Secretary to the Director. Robert G. Sproul, B.S., Comptroller and Secretary of the Regents. Robert M. Underhill, B.S., Assistant to the Comptroller.
- Charles H. Rieber, Ph.D., Dean of the College of Letters and Science, Southern Branch.
- Marvin L. Darsire, M.A., Dean of the Teachers College, Southern Branch.
- Hrlen Matthewson Laughlin, Dean of Women, Southern Branch.
- Lewis Adams Maverick, M.A., Ed.M., Recorder, Southern Branch.
-Charles Wilein Waddle, Ph.D., Professor of Education and Director of the Training School.
- J. E. Goodwin, B.L.s., Librarian, Southern Branch.
-0.1 Whliak J. Norris, M.D., Physician for Men, Southern Branch.
-E. R. Wari, M.D., Aseistant Physician for Men, Southern Branch.
- 2.1 Lillian Ray Ttroomb, M.D., Physician for W.omen, Southern Branch.
-M. Burney Portirr, Appointment Secretary and Supervisor of Teacher Training, Southern Branch.
${ }^{-E}$. R. Ware, M.D., Assistant Physician for Men.
- Lillian Ray Titcomb, M.D., Physician for Women.
- M. Burney Porter, Appointment Secretary and Supervisor of Teacher Training, Southern Branch.

Adyisory Administrative Board, Southern Branch, University of California:
Ernejt Carroll Moore, Chairman; Baldwin M. Woods, Harold L. bevce, Robert G. Sproul.

## FACULTY

-2 1 John Mead Adams, Ph.D., Associate Professor of Physics.
-2- Bennett Mills Allen, Ph.D., Associate Professor of Biology.

- $/$ Bernicer Allen, B.S., Ed.B., M.A., Instructor in Home Economics.
- $\mathcal{F}$ I Eva M. Allen, Associate in Commercial Practice.
- 1 Herbirt F. Allen, Ph.D., Assistant Professor of English.
$\rightarrow 1$ RUtH V. Atkinson, B.S., Director of Physical Education for Women.
-21 Sabar Rogers Atsatt, M.S., Instructor in Biology:

-g Befle Ho
- Y I Ruth E. Bauar, A.B., Associate in Geography.
- 1 Frederick E. Beckman, Ph.D., Associate in French and Spanish. w Romen is crace.
-Leigh Bell, LL.B., Captain, U. S. A., Assistant Professor of Military Science and Tactics,
- 2 I David K. Bjorkep Ph.D., Instructor in History.
- 21 Frbedrric T. Blanitchard, Ph.D., Professor of English.
-21 Foss If. Brockway, Associate in Mechanic Arts.
- 21 Anna P. Brooks, A.B., B.B., Assistant Professor of Fine Arts.
-2 1 Hentry Raymond Brosh, Ph.D., Professor of Romance Languages.
-2 | Llemellyn Burila, Ph.D., Assistant Professor of English.
$-2 \mid$ Lily B. Campbifle, Ph.D., Instructor in English
-2 I.Margaret S. Carihart, Ph.D., Instructor in English.v
- 2 Ford A.shman Carpenter, LL.D., D.Se., Leeturer in Meteorology.
- A. G. W. Cerp, M.A., Litt.D., Honorary Leeturer in French.
-21 Helen Clark Ceandlem, Assistant Professor of Fine Arts.
- $\mathcal{I} \mid$ Orabml Chilfon, B.s., Associate in Home Economics. $\checkmark$
-21 Helen M. Christiansen, Ph.B., Associate in Education. ${ }^{6}$
-2 in. H. Climment, A.M., LL.B., Assistant Professor of Romance Languages. $\sim$
- James J. Cline, A.B., Associate in Physical Education for Men.
$-2 \mid$ Katherine Close, M.D., Lecturer in Hygiene.
- 2 I Myrtir Colurbr, B.B., Assistant Professor of Mathematics.
-2 1 Katherine Collins, M.A., Associate in English.
-2 i Squire Coop, Lecturer in Music. $V$
-2 I Frbebrick W. Cozens, M.A.y Assistant Professor and Director of Physical Education for Men.
- John. E. Crmed, B.S., Major, U. S. A., Assistant Professor of Military Ecience and Tactics.
-2. 1 Wimliam R. Crowell, Ph.D., Assistant Professor of Chemistry.
-21 Marvin L. Darsie, M.A., Dean of the Teachers College and Associate Professor of Education. $\checkmark \checkmark$
-2 f Paul H. Daus, Ph.D., Instructor in Mathematics.
$-j$, 1 Prise Davidson M.A., Instructor in Zoology.
Maver:ck
- 1 Mary Drrby, Associate in English.
-21 Wilinam Diamond, Ph.D., Assistant Professor of German.
-ij I Laurenor Ellsworth Dodd, Ph.D., Assistant Professor of Physics. $\sqrt{ }$.
-21 A. K. Dolch, Ph.D., Instructor in German.
- I Arbert W. Dowden, A.B., Associate in Physical Education for Men. $\sqrt{ }$
- 21 Carl s. Downes, Ph.D., Instructor in Einglish.
- 21 Max S. Dunn, Ph.D., Instructor in Chemistry.
$-\therefore$ I Clarrnger A. Dyrstra, A.B., Lecturer in Government.
-21 Harvey L. Eby, Ph.D., Associate Professor of Education.
$-y^{\prime}$ Cora E. Eckmrt, M.A., Associate in Physical Education for Wpmen.
-21 Hram W. Edwards, Ph.D., Assistant Profegsor of Physies.
- J. W. Eurs, A.B., Instructor in Physics.
-21 Frederici M. Essia, Ph.D., Instructor in Botany.
-21 Matd D. Evans, Associate in Home Economics.
-21 Graor M. Frenald, Ph.D., Associate Professor of Psyehology.
-2 I S. Carolyn Ftsher, Ph.D., Assistant Professor of Psychology.
-- 1 Alexander Green Fitie, Ph.D., Assistant Profegsor of French.
-2 I Lucy M. Gannes, M.A., Instructor in History.
-21 Whliam H. Grorar, Ph.D., Instructor in Government. $\downarrow$
- 21 Neliir Huntinaton Gere, Associate Professor of Fine Arts.
-21 Dorotify S. Gibline, A.B., Associate in Physical Education for Women.
- 21 Harriet E. Glazier, M.A., Assistant Professor of Mathematics.
= J. E. Goodwịn, B.L.S., Librarian.
-2 | Kate Gordon, Ph.D., Associate Professor of Psychology. $\downarrow$
$-\boldsymbol{y}$ Luche R. Grunewald, B.S., Associate in Physical Education for Women.

- $2 \mid$ Edith R. Harshberger, A.B., Associate in Physical Education for Women.
-21 Bessir E. Hazen, A.B., Ed.B., Instructor in Fine Arta
- 2.1 Herman Hilmer, Ph.D., Lecturer in Economics.
$-\because 1$ Pergy H. Houston, Ph.D., Assistant Professor of English.
-2 1 Hrlen Howelu, Associate in Fine Arts.
- 2. 1 Alicr Hubard, Associate in French and Spanish.
- *Alice O. Hunneweli, Instructor in English.
-2.lGuy H. Hunt, C.E., Assistant Professor of Applied Mathematics.
$-2 /$ Sigurd Bernhard Hustvedr, Ph.D., Assistant Professor of English.
$-2 \mid$ Glenn James, Ph.D., Assistant Professor of Mathematics.
-21 Emily D. Jambson, A.B., Associate in Physical Education for Women.
-2-1 Matde E. Jenkiss, B.S., Associate in Home Ecgnomics. $V$
- I Benjamin W. Johnson, Lecturer in Education and Supervisor of Classes for the Training of Trade and Industrial Teachers.
-2. I Adolpo Jorda, Lic. en Fil. y Letras, Instructor in Spanish,
- Absent on leave.
- 21 adrian D. Krllar, B.S., E.E., Associate in Mechanic Arts.
-21 Frank J. Klinabira, Ph.D., Associate Professor of Histoyy.
$-r^{\prime} \mathrm{I}$. o. Knudsen, Ph.D., Assistant Professor of Physics.
-21 L. K. Koonsz, Ph.D., Instructor in History.
-2 : Willuam J. Kraft, Mus.Bac., F.A.G.O., Lectprer in Music. $ل$
- "Anna Kradse, A.M., Associate in Spanish.
-2 : Miriva Latham, Ph.B., Assistant Professor of History
-2 1 Elizabiti Laterop, Associate in Home Economics.
-2 C. A. LeDruć, M.B.A., Ph.D., Assistant Professor of Acgounting.
- 21 Fredirige C. Leonard, Ph.D., Instructor in Astronomy.
-21 Evelyn Lesejure Loughead, M.A., Associate in French. $\mathbf{y}$
- 21 Madelrine I. Letessier, A.B., Associate in French.
- 2 I Joserph B. Lockex, Ph.D., Assistant Professor of History. $\downarrow$
-q 1 Lawrinox C. Lockiey, M.A., Associate in English.
- 2 I A. E. Lonaueill, Ph.D., Assistant Professor of English.
- 21 Marfa Lopiz de Lowther, B.S., M.A., Lecturer in Spanish.
-2 1 Pauling Lynce, Associate in Home Economics.
-2 I Grorai M. Mobride, Ph.D., Associate Professor of Geography.
- MMrta Lisle McClellan, B.S., Assistant Professor of Geography. $_{\text {Mis }}$
- $i$ I Marsiall Francis McComb, A.B., LL.B., Lectuger in Government.
-2 IW. T. MoGrath, A.B., Associate in Economics.
-2 J. F. McGriw, Associate in Public Speaking.
- 21 Arthur Patch McKinlay, Ph.D., Assistant Professor of Latin.
-21 Katherine L. MoLatghlin, M.A., Associate Professor of Education. $\downarrow$
-21 Donald Mackax, Ph.D., Instructor in Philosophy. $\downarrow$
- \& 1 Harbiet MacKenzie, M.A., Instructor in English.
- 21 Harold William Mansfield, Assistant Professor of Mechanic Arts
-21 Charles A. Marsh, B.S., Assistant Professor of Argumentation. $V$
-2 1 James Willard Marsh, Associate in Mechanic Arts.
- 21 Giarles E. Martin, Ph.D., Associate Professor of Government. $\downarrow$
-2 I W. E. Mason, B.S., M.S., Instructor in Applied Mathematics.
- zLlewis A. Maverici, M.A., Ed.M., Recorder, and Lecturer in Vocational Education. $\vee \vee$
-2 1 Russkle W. Millar, Ph.D., Instructor in Chemistry.
- 2 |Loye Holmes Milike, Ph.D., Professor of Biology.v
-2 1 Earl J, Milurr, Ph.D., Assistant Professor in Economics.
- 21 Ernest Carroll Moore, Ph.D., LL.D., Director of the Southern Branch and Professor of Education. $\sqrt{ }$
$-2 \mid$ Whliam Conger. Morgan, Ph.D., Profebsor of Chemistry. $\checkmark$
-21 Elmerr S. Nelson, M.A., Associate in Commerce.
-21 Onve Newoomb, Associate in Industrial Arts. ${ }^{\checkmark}$
-2 |Howard S. Noble, A.B., M.B.A., Assistant Professor of Accounting.

[^1]-2 1 Frank E. Oldire, B.S., Assistant Professor of Agricultural Teaching.
-2 1 Guy G. Palmer, Colgnel, U. S. A., Retired, Professor of Military Science and Tactics.
-21 John Carl Parish, Ph.D., Assistant Professor of History. $V$
-21 Charles H. Paxton, Associate in Mechanic Arts.

- 21 L. E. Prarson, M.A., Associate in English.
-2.1 John B. Phillips, Associate in Mechanic Arts.
- 21 Estella B. Plovar, Associate in Commercial Practice.
- F. L. Pools, M.S., Associate in Physics.
- 2 J. B. Ramsey, A.B., Instructor in Chemistry.
-21 Edwin Moore Rankin, Ph.D., Lecturer in Greek. $\checkmark$
-21 Ciarliss H. Rieber, Ph.D., Dean of the College of Letters and Science and Professor of Philosophy. $\checkmark \checkmark$
- 21 G. Ross Robertson, Ph.D., Assistant Professor of Organic Chemistry.
-2 1 Clarract Hall Robison, Ph.D., University Examiner and Assistant Professor of Education.v $V$
-\% is. L. Millard Rosenberia, Ph.D., Assistant Professor of Spanish.
- Ethiel I. Salisbury, M.A., Associate Professor of Elementary Education.

-1 Marion Shepard, A.B., Associate in Physical Education for Women. $\sqrt{ }$
-2 1 Grorar E. F. Sherwood, M.A., Associate Professor of Mathematics.
- 21 Harry M. Showman, E.M., M.A., Assistany/Professor of Mathematics.
-2 1 Leslite B. Simpson, Associate in Spanish.
-21 Birdie Kirk Smith, Associate in Fine Arts.
- 1 Willism A. Smiti, Ph.D., Assistant Professor of Edacation. $\sqrt{ }$
-21 Louise P. Sooy, Assistant Professor of Fine Arts.
- | Vernon Spencer, Assistant Professor of Music. $v$
$-2 \mid 0$. L. Sponsler, Ph.D., Instructor in Botany.
- A. N. Stari, Jk., Assistant Professor of Military Science and Tactics.
-21 Hosmmr W. Stone, Ph.D., Assistant Professor of Inorganic Chemistry.
- 21 Neluie B. Sullivan, Ph.D., Instructor in Psychology.
-21 Florence E. Sutton, Associate in Physical Education for Women. $\sqrt{ }$
- 2 Ina Thace, Associate in Physical Education for Women.
- 21 Evalyn Thomas, a.B., B.L.I., Instructor in English.
-2 1 Helen B. Thompson, Ph.D., Professor of Home Economics.
- 2 Caroline I. Townsend, Associate in English?
-2 i Bertea C. Vaugen, Teacher of Voice.
-21 L. C. Valentine, A.B., Associate in English.
- 21 Frbdirick P. Vickmby, M.S., Assistant Professor of Geology. $\sigma$
- Charles Wilkin Waddie, Ph.D., Professor of Education and Director of the Training Schools. $\quad$, $\gamma$
- "Arthur H. Warner, A.B., B.S., Associate in Physicg.
-2 I Nataure White, B.s., Ashociate in Industrial Arts. $V$
-2 | Belle H. Whitice, Asbociate in Industrial Arts.
-2 I Alpred R. Whitman, Ph.D., Assistant Profesbor of Geology. ${ }^{\vee}$
-21 J. Harold Wiliiams, Ph.D., Lecturer in Education.
-2 1 florences A. Wilson, A.B., B.S., Associate in Home Economics,
- 21 Frrderick P. Worllner. Ph.D., Lecturer in Civic Education.
- 21 Euphemia R. Worthington, Ph.D., Instructor in Mathematics.
g. I Frances A. Wriart, Associate Professor of Public School Music.


## STAFF OF TRAINING INSTRUCTION

## University Trainina School

- 1 Helen F. Bouton, Ed.B., Training Teacher, Fifth Grade.
- 1 I Etiel Britto, A.B., Training Teacher, First Grade, Southern Branch.
- Elizabeth Bruene, School Counselor.
- I Maranret M. Campbell, M.A., Training Teacher in Mathematics.
- $\mid$ Madelne ${ }^{\text {Crowell, B.s., Teacher of Home Economics in the Training }}$ sehool.
-2 Vivian Evans, Training Teacher, First Grade.
- I Barbara Gremwood, Training Teacher, Kindergarten.
- 9 Francrs Giddinas, A.B., Supervisor of Primary Education.
- 11 Aucr Hubard, Training Teacher in Spanish.
-q ( Mabel C. Jackson, M.A., Training Teacher in English.
- Wilbur C. Johns, Assistant in Physical Education.
- 1 Katharine Kafley, A.B., Training Teacher in Social Sciences.
- "Helen B. Krulerr, Supervisor of Adjustment Room.
- 1 Blanohe Keils, Training Teacher, Physical Education. -_ - Teacher of Printing.
-- Training Teacher of Mechanic Arts.
-21 Edith Hopi Ringer, Training Teacher, Third Grade.
-21 Emma J. Robinson, Training Teacher, Sixth Grade.
- Ethrl I. Salisbury, M.A., Associate Professor of Elementary Education.
- 21 alma Barnett Sawyrr, M.a., Supervisor of Practice Teaching.
$\because 1$ Corinne A. Semds, B.s., Training Teacher, Fourth Grade.
$\gamma_{1}$ Katherine Spiers, M.A., Assistant Supervisor of Training.
$-7 \mid$ Lusu M. Stedman, Training Teacher, Opportunity Rooms.
- 21 Edith Wallor Swarts, Training Teacher, Second Grade.
-21 Thomas E. Thompson, A.B., Vice-Principal of Junior High School.
- / Cearles Wilkin Waddle, Ph.D., Professor of Education and Director of the Training Schools.
- / Bertian E. Wells, Assistant Supervisor of Practice Teaching.

[^2]
## STAFF IN CITY TRAINING SOHOOLS

-Charles Wilkin Waddle, 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, Le Conte Junior High School.

- or Nino Brown, Training Teacher, Eighth Grade, Lockwood. Sirrena P. Christensen, Training Teacher, Seventh Grade, Lockwood. Ruth M. Bajur, Training Teacher, Sixth Grade, Dayton Heights. ————, Training Teacher, Sixth Grade, Lockwood. ———— Training Teacher, Fifth Grade, Dayton Heights.
Laverna Lossina, Training Teacher, Fifth Grade, Lockwood. Aulcr M. Gremr, Training Teacher, Fourth Grade, Dayton Heights. Grbtrude Malonex, Training Teacher, Fourth Grade, Lockwood. Grace M. Tinalex, Training Teacher, Third Grade, Dayton Heights. Lura Sawyer Oak, Training Teacher, Third Grade, Lockwood. Eluen Tox, Training Teacher, Third Grade, Dayton Heights. Inga Martinson Lacy, Training Teacher, Second Grade, Lockwood, Hazel Glovir, Training Teacher, Second Grade, Dayton Heights. Jessica M. Parks, Training Teacher, Second Grade, Lockwood. Margaret Rose Carnes, Training Teacher, First Grade, Dayton Heights. Bess Holdzgom, Training Teacher, First Grade, Lockwood. S. Edna Willims, Training Teacher, First Grade, Dayton Heights. Euzabeti Whitcomb, Training Teacher, Kindergarten, Lockwood. Estelle Royar, Training Teacher, Kindergarten, Dayton Heights. Jeanettr Ferman, Training Teacher, Adjustment Room, Dayton Heights.
- $\gamma$ I Edna Lee Roof, Training Teacher, Physical Education, Lockwood and Dayton Heights.
Helen Linerns, Training Teacher, Home Economics, Lockwood and Dayton Heights.
Mary Francrs Hollins, Training Teacher, Home Economics, Le Conte Junior High School. .
Nellir J. Sutter, Training Teacher, Home Economics, Le Conte Junior High School.
Susir K. Sanderson, Training Teacher, Non-English, First Grade, Bridge Street.

ASSISTANTS
-Padl Frampron, Assistant in Physical Education for Men.

- Whbur C. Johns, Assistant Training Teacher in Physical Education. - 2 Ruti G. Persons, A.B., Assistant in Zoology.
- Elsie Rambo, Assistant Kindergarten Teacher.
- Harry Trotter, Assistant in Physical Education for Men. - 7 Joinn D. Elder, Assistant in Physics.


## V. ADMISSION TO THE UNIVERSITY

## Admission from Accredited Schcols 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-yeart 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.

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 can not be completed in the University in the normal period (four years

[^3]for the degree A.B. or B.S.) 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 Aocredited

A graduate of a California secondary school not accredited by the University who is strongly recommended by the principal of his school will be admfitted upon passing the following examinations:

English (2 units); U. S. History (1 unit); laboratory science (1 unit); and two of the following groups:
(a) Advanced English and History (in addition to U. S. History), any 2 units.
(b) Mathematics (intermediate algebra and trigonometry), $11 / 2$ 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 Sohools 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.

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 degree A.B. or B.S.) unless the candidate during his high school course has completed such specific prerequisites as may underlio the University work. A list of the curricula, with a statement of the preparatory work required and recommended, is given hereunder.

## 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 npon the applicant's high sehool 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 Jainuary 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 Aecorder of the Southern Branch.

## List of Preparatory Subjeots

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 or from thirty-six to forty weeks and constituting approximately onequarter 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 exceptions noted below, the University holds entrance examinations in these subjects:

[^4]| Admissions |  |  |  |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { New } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & \text { Units } \\ & \text { Old of } \\ & \text { No. Credit } \end{aligned}$ | $\begin{aligned} & \text { Now } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & \text { Units } \\ & \text { Old of } \\ & \text { No. Credit } \end{aligned}$ |
| $1 a$ | Fngligh, elem....................(1) 2 | +564 | Latin, ady., 4th yr........... $76,70^{\text {a }}$ ) |
| $16$ | Engligh, adv. I..................(14a) 1 | $15 c^{1}$ | French, elem., 1 yr. of $5 \mathrm{c}^{9}\left(15 \mathrm{~m}^{1}\right) *$ [1 |
| 1. | English, adv. II.................(14b) | +509 | Frenoh, elem..................... $15 a^{2}$ ) 2 |
| $2 a$ | Algebra, elam.................... (3) | +5c ${ }^{\circ}$ | French, intermed................ $15 a^{6}$ ) 1 |
| $2 b^{1}$ | Algebraic Theory, I........... (4al) | +504 | French, adv......................... 1500 , 1 |
| $26^{2}$ | Alpebraic Theory, II........... (4as) | [50 | German, elem., 1 yr. of $5 \mathrm{~d}^{2}$. ( 1501 * (1 |
| $2 c$ | Plane Geometry ..................(2) | 458 | German, elem.................... 1506 ) 2 |
| 2d | Solid Geometry................ (4b) | +5ds | German, intermed............. $1565^{\circ}$ 1 |
| $+2$ | Plane Trimonometry......... $\left(12 a^{4}\right.$ ) | +504 | German, adv................... ${ }^{\text {(5bo }}$ ) 1 |
| $+2 f$ | Plane Analytic Geometry (12as) | [50 | Spanish, elem., 1 yr. of $50^{\circ} . .\left(15 c^{1}\right)^{*}[1$ |
| $8{ }^{3}$ | Physios........................... (11) 1 | +50 | Spanigh, elem................... $15 c^{2}$ ) 2 |
| 3 h | Chemintry......................... (12b) 1 | +50 | Spanimh, intermed............. $150^{\circ}$ ) 1 |
| 3 c | Phytiology and Hygiene... (12) 1 | +506 | Spaniah, adv...................... (1504) 1 |
| $3 d$ | Botany............................. (12c) 1 | +60 | Freehand Drawing........... (16) 1 |
| 38 | Zoology.............................(12d) , 1 | $t 63$ | Geometrical Drawing........ 17 ) 1 |
| 8 | Biology............................. ${ }^{12 h}$ ) | 7 | Mechanic Arts.................. (18a) 1-3 |
| 8 | Physicel Geography.......... (12e) | 8 | Agrioulture........................ (19)* ${ }^{\text {\% }}$-3 |
| 3 | Phyrsical Soience........i.... (12g)* | 9abc | Home Economicm............... (18cd)* ${ }^{\text {d }}$-3 |
| 40 | Historyand Gov. of the U.S. (5) | 10a | Music, Sight Singing and |
| 46 | Hiatory, Ancient.............. (10) |  | Dictation......................(21a) |
| 40 | History, Med. and Mod.... $13 a)$ | 106 | Music, Elements of Com- |
| $4{ }^{1}$ | Fristory, English................(13b) 1 |  | position......................... (21b) |
| T $\dagger$ Sa | Greek elem....................... 8a) [1 | 10 c | Music, Instrumental and |
| +6at | Attic Prose....................... 8 ) 2 |  | Vocal Teohnique...........(21c) |
| +6as | Attio Prose, adv...o............ (9a) ${ }^{\frac{3}{3}}$ | 10d | Music, History of Modern |
| +60 | Homer............................... 96 (9a) ${ }^{\frac{3}{3}}$ |  | Europesn Music............(21d) |
| [651 | Latin, elem., 1st yr........... (6abl) ${ }^{\text {F }}$ [1 | 11 | Bookkeeping.....................(20c) |
| +562 | Latin, elom., 2d yr........... $\left.6 a^{2}, 6 b^{2}\right) 2$ | 12 | Stenography and Type- <br> writing...........................(20d) 1-2 |
|  |  | 13 | Mititary Science and Tactio *....... |

## College Entrance Examination Board

Certificates of successful examinations before the College Entrance Examination Board will be accepted in lien 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 Junc.

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.

[^5]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 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 tuke 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, 1924, 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 Trachers' Diplomas

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 Sohool Programme

Aside from the specific prerequisites for certain curricula, as set forth below, no prescription of high school work is made by the University. It is assumed that the authorities in responsible control of secondary education will make reasonable provision for solidity and breadth in the high school course. The choice of electives during the high school period must be made by the pupil, under the direction of the school faculty, and the decision as to subjects chosen will be based not solely upon "recommendations', made by universities and colleges but also upon other considerations best known to the school authorities, such as the aptitude of the individual pupil and the extent to which proper facilities for work of high quality in the various subjects is supplied by the school. A resolution of the California State Board of Education directs that all public high school curricula in California require, for graduation after July 1, 1920, the following: English, 2 units; United States history and civics, 1 unit; laboratory science, 1 unit; and all such curricula mast be so organized as to include two majors of at least 3 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.

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 28-37) 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 taken up in the school course, and extends to speaking and oral reading as well as to ability to use one's mother tongue correctly, clearly, and pertinently on all the lines upon which the thought is exercised.

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 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 rge than by older persons. The study of the language or languages (ancient or modern) selected should be begun early in the high school course and should be continued 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 33, 56, 62, 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 the elements of 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 56, 61, herein. Attention is callod to the basic importance of physics and chemistry. Instruction in these subjects is not provided by the University excepting during the summer sessions.

## Preparation for the Various Currioula*

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

[^6]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.

With reference to major subjects in the College of Letters and Science, the subjoined statement of "requirements and reeommendations" is addressed rather to the student who desires to be well prepared to complete a full undergraduate major-possibly as a candidate for honorsthan to the student who wishes merely to satisfy a minimum graduation requirements. 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.

Norg.-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 Collear of Agriculture

Required: plane geometry (1); elementary algebra (1); chemistry (1).*
Recommended: advanced mathematics, including trigonometry (2); physics (1); geometrical drawing (1); advanced English (2); a reading knowledge of a modern foreign language.

[^7]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 Collegr or Lettiens and Science, at the end of four years, to the degree of Master of Arts in the Graduate Division at the end of not less than five years, and to the degree of Graduate in Architecture in the school of. Arohiticture at the end of not less than six years.
Required: plane geometry (1); elementary algebra (1); algebraic theory ( $1 / 2$ ); trigonometry ( $1 / 2$ ); physics ( 1. ); chemistry (1); freehand drawing (1); foreign language (2).
Recommended: advanced algebraie theory, including quadratics (1/2); solid geometry (1/2); geometrical drawing (1); Latin (2); French (2).

Art: leading to the degree of Bachelor of Arts.
Required: plane geometry (1); elementary algebra (1).
Recommended: freehand drawing (1).
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); plano geometry (1).
Recommended: advanced mathematics (2); physics (1) chemistry (1); French (2) or German (2).

Ohemistry: (A) leading to the degree of Bachelor of Science in the College of Chemistry.
Required: same as for Enoineering, with French or German.
(B) leading to the degree of Bachelor of Arts in the College or Letters and Science.
Required: elementary algebra (1); plane geometry (1); any two of the three subjects-chemistry (1), physics (1), trigonometry ( $1 / 2$ ).
Recommended: advanced mathematics (2); French (2) or German (2); geometrical drawing (1).

Commerce: leading to the degree of Bachelor of Science in the Collear of Commerde.
Required: algebra (1); plane geometry (1).
Recommended: additional mathematics (including trigonometry); natural seiences; modern foreign language; additional English.

Dentistry: leading to the degree of Doctor of Dental Surgery in the College of Dentistry at the end of four years.

- 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.

Engineoring: leading to the degree of Bachelor of Science in one of the colleges of engineering. These colloges are: College of Michanicscurricula in mechanical and electrical engineering, marine engineering and naval architecture: Colleger or Mining-curricula in mining engineering, petroleum engineering, metallurgy, and economie geology; Colleger or Civil Enaineering-curricula in railroad, sanitary, municipal, and irrigation engineering.
Required: plane geometry (1); elementary algebra (1); algebraic theory ( $1 / 2$ ); trigonometry ( $1 / 2$ ); 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 (1/2); solid geometry (1/2); freehand drawing (1); foreign lanugage (2).

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 Enginerering.
Recommended: same as for Enginkering.

Geography: leading to the degree of Bachelor of Arts.
Required: elementary algebra (1); plane geometry(1); chem try (1).
Recommended: advanced mathematics (2); German (2) or Freuch (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).

Eistory: 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.

Household Art: leading to the degree of Bachelor of Arts.
Required: plane geometry (1); elementary algebra (1); chemistry (1).
Recommended: freehand drawing (1); botany (1); domestic science (2); mechanical drawing (1); foreign language, preferably French or German (2-4).

Fousehold 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).

Eygiene and Physical Education: leading to the degree of Bachelor of Arts.
Required: elementary algebra (1); plane geometry (1); chemistry (1). Recommended: French or German; physics; mathematics.

Languages-Olassics, Iatin, 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, Elavic, Spanish: leading to the degree of Bachelor of Arts.
Recommended: Latin (4) or Greek (3); French (2) or German (2), or Spanish (2).

Iaw: (A) leading to the degree of Bachelor of Arts in the Colubge or Letiters and Science at the end of four years, and to the degree of J.D. in the School of Jurispradence at the end of six years.

Recommended: physics (1) or chemistry (1); Latin (2); U. S. history (1) and English history (1).
(B) leading to the degree LI_B, in Hastings Colleger of the Law (San Francisco) at the end of five years (two years in the Collear of Lextrizs and Sciencr. at Berkeley followed by three years in Hastings College of the Law).

For further information see the annual announcements of the Hastings Collear of the Law and of the School of Jurisprudence.

Ietters and Bctence, 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 80-135 herein.
Recommended: foreign language; physies (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 Univer-
sity, 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 be begun early in the high school course and should be continued 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 the elements of 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 ( $1 / 2$ ); trigonometry ( $1 / 2$ ).

Medicine: leading to the degree of Bachelor of Arts in the Colleger 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 consiating 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 mathematies; 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 Mrdicil School.

Military science and Tactis: 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 (1/2); trigonometry ( $1 / 2$ ); 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 ( $1 / 2$ ); solid geometry ( $1 / 2$ ); military science and tactics ( $1 / 2$ ); physical education.

[^8]Music: leading to the degreo of Bachelor of Arts.
Recommended: harmony (1); history of music (1); vocal or instrumental technique or choral practice (1).

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 Lettrers 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); $\dagger$ and either physics or trigonometry.
Recommended: foreign language (2).

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 (1/2); mechanical drawing (1); French (2) or German (2).

Recommended: additional mathematics; additional foreigu language.

[^9]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 Sán Francisco.
Required: graduation from an approved high school course of four years or its equivalent.
(B) leading to the degree of Ph.O. (Pharmacentical Chemist) at the end of a course of three years in the California College of Pbarmacy in San Francisco.
Required: graduation from, an approved high school course of four jears 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 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.
Requircd: elementary algebra (1); plane geometry (1); chemistry (1); physies (1).
Recommended: advanced mathematics (2); German (2) 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 Fealth: (A) leading to the degree of Bachelor of Arts in the College of Liettiers and Soience at the end of four years and to the degree of Graduate in Public Health (Gr.P.H.) in the Gradiate 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 Columar or Civil Engingering (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 Enginerring; see above.
(c) leading to the degree of Bachelor of Arts in the Coluregr or Lettirs 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).
Rccommended: 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.
Soctal Bervice: 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.
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).

# ADMISSION WIYF ADVANCED STANDING 

## FROM OTHER COLLEGES AND UNIVERSIITIES

Advanced standing in the Teachers College or the College of Letters and Science of the Southern Branch may be given applicants on the basis of credentials from other colleges and universities upon the approval of the credentials by the proper committee. A form which may be used 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.

## 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 Oalifornia, 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, ete., and allow only a limited amount of free elective time. 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 conditioned 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 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 Board of 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 Faculties on request.

## CREDIT FOR TEACHING EXPERIENCE

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.

## 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 Admissions Committee. A circular concerning the rules of the Admissions Committee in the matter of assignment of credit in languages to foreign students may be obtained from the Recorder of the Southern Branch, Los Angeles.

## ADMISSION OF SPEOLAL 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 studente-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 offlcer, 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 epening of each semester.

All special students (men) shall report immediately to the offleer 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 requiroments in full.

Instruction is not offered in such essential preparatory subjects as 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 semester.

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

## 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) Students who pass Subject $A$ are not required, but are advised, to continue their training in oral and written composition. (2) All students must pass Subject A examination. (3) No student who has not passed Subject A will be admitted to any University course in oral or 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.

## ATTENDANCE

Absences from class exercises must be adjusted by the student with the instructor concerned.

## MILITARY SOIENCE, PHYSICAL EDUCATION, AND HYGIENE

All undergraduate students shall, upon admission to the Southern Branch, report immediately to the proper officers for enrollment-in military science (men), physical education (men and women), and hygiene (men and women), following the Registration Circular or the announcements which may be posted on the bulletin boards. 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 apon their study cards with other University courses.

Petitions from students for excuse from, or deferment of, military science, physical education, or hygiene, fled 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.

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

## UNITS OF CREDIT

Both matriculation and University work are measured in "units'". A "unit of registration' 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 semester without special permission as to quantity of work. During the first semester in residence at the Southern Branch no undergraduate student will be permitted to take more than 16 units of work." After one semester of regular residence (i.e., with a study list of at least 12 units), permission may be granted, on petition to the Scholarship Committee, to take not over 18 units per semester, provided the student has attained an average of at least two grade points per unit for the preceding semester. Prescribed courses in military science, physical education, and hygiene, and repeated courses are to be counted in making study-list totals.

In general, old students will be allowed (unless limited to 16 units because of deficiencies in the work of the previous semester) to enroll in $161 / 2$ units without special permission. 'Their cards will be stamped by the Recorder, "Only 16 units credit allowed."

Students may be allowed, on petition to the Scholarship Committee, 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, "Only 16 units eredit allowed."

Regular students with deficiencies will be limited to 16 units, including repeated work.

Students enrolled in the College of Letters and Science, carrying lower division work preparatory to admission to the junior year of the College of Agriculture, the College of Civil Engineering, the College of Chemistry, the College of Commerce, the College of Mechanics, or the College of Mining, will be allowed study-list limits as prescribed for lewer division students in the college in which they will be registered upon transferring to the upper division in Berkeley. Should they later transfer to a non-professional curriculum in Letters and Science, their credits will be scaled down in accordance with the above limits.

Students entering the College of Letters and Science from any other college, will have their advanced standing determined under the above limits.

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.

[^10](b) Teachers College.-The requirements for the College of Letters and Science are changed in only one particular for the Teachers College, namely, the student may present a study-list aggregating from 12 to 17 units. The extra half-unit without petition, or slightly more upon petition to the Committee on Scholarslip, may be allowed as above described for the College of Letters and Science; in case of the Teachers College the Recorder's stamp will read: "Only 17 units of credit allowed." The 18 unit maximum limit on petition by students having an average of two grade points per unit is the same as in Letters and Science. Regular students with deficiencies will be limited to 16 units including repeated work. The inclusion of English A in a student's study-list will 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.

## 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. Withdrawal from, or neglect of, any course entered on the study list, or a change in programme without the formal permission of the dean of the college, renders the student liable to enforced withdrawal from the Southern Branch, or other appropriate disciplinary action.

## 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-examination.-Should a student receive a condition or an incom. plete in a course and find it necessary to take a re-examination, he may do this without charge provided that he take the examination with the regular class which next repeats that course. Should he, however, take the examination at any other time he must pay a fee of $\$ 5$ for the special examination. In any case, permission to take the examination must be received from the Recorder's office.

Any student who is reported as having failed in a course, or who, after being conditioned, does not pass the reëxamination for the removal of the condition, will be required to repeat every such subject 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

Beginning August, 1921, the results of examinations, together with term work when a record of the latter is kept, will for all undergraduate students be ranked and reported to the Recorder in six grades: A, excellent; B, good; C, fair; D, barely passed; E, conditioned; F, failure.*

Courses in which students obtain grade $E$ (conditioned) will not be credited to them, except upon passing a reëxamination.
"Incomplete" (Inc.) indicates that the student has been passing in his work but through illness or other unavoidable cause has failed to perform certain of the allotted tasks or has been absent from the required examination.

An "Incomplete" which is not made up by the close of the session in which the course is next given will then be recorded as a "Condition'"; that is to say, a negative grade point will be entered on the student's record for each unit in the course, and also it will be impossible after that time for the grade to be removed by any grade higher than "D." A Condition which is not removed by the close of the session in which the course is next given will then be removable only by repetition of the entire course. See under "grade points" the regulations concerning negative grade points.

Grade F denotes failure, and the necessity of repeating not only the examination of the course but also the term work. The report in case of absence from the required examination, or failure to perform any of the allotted tasks in a given course, is incomplete.

## GRADE POINTS

To qualify for the bachelor's degree and teaching credentials in the Teachers College or for the bachelor's degree in the College of Letters and Science, in and after May, 1923, the candidate must have attained at least as many grade points as he has attained units of credit in work

[^11]undertaken by him in and after August, 1821. It is also required that candidates for any teaching credential shall attain at least 10 of the necessary grade points in practice teaching courses.

The grades A, B and C carry with them grade points. A gives three grade points per unit, $B$ two grade points per unit, $C$ one grade point per unit. Grade $D$ is a passing grade and gives the student credit in the course but no grade point.

Grades B, C and D may not be raised by any process of examination or even of repeating the work.

## NEGATIVE GRADE POINTS

Beginning February, 1924, negative grade points will be assigned at the rate of one negative grade point per unit, for courses reported conditioned or failed; that is, one grade point will be subtracted from the total of the student's grade points for each unit of $E$ or $F$ received. These negative grade points will be cancelled from the student's record only upon the satisfactory completion of the work, but no positive grade points may then be given. Full g.p. allowed for Eorf recoived

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.

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 disqualifited student who proposes ever to return to the Soathern 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.

A stadent who receives a grade of $E$ or $F$ in any course during a given semester is considered as deficient and is, therefore, "limited's 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.

## LEAVE OF ABSENOE AND HONORABLE DISMISSAL

Indefnite leave of absence must be sought by written petition to the office of the Recorder.

Brief Leave of Absence.-Application for leave to be absent, or excuse for having been, absent from any college exercise other than an examination, 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 for several days, in which case the Dean has authority to excuse. No excuse for absence will relieve the student from completing all the work of each course to the satisfaction of the instructor in charge.

Honorable diamissal, indicating that the student, while in good standing, has voluntarily severed his connection with the Southern Branch, should be sought by written petition to the office of the Recorder. Without such petition no record of honorable dismissal will be made.

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

Incidental fee, \$12.50, 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, 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 the total fee ( $\mathbf{\phi 1 2 . 5 0 \text { ) and }}$ will later receive a refund from the Comptroller of half of their fee (\$6.25).

Tuition fee.-Non-residents of California are charged a tuition fee of $\$ 75.00$ each half-year. Aliens who have not made a valid declaration of intention to become citizens are classified as non-residents of California. Every entering student is required to fill out a "Statement as to Residence' ' on the day of registration, and his status as to residence or nonresidence will be determined by the Attorney for the University shortly after registration. A circular concerning tuition fees for non-residents
is supplied by the Recorder upon request. If the student registers for instruction to an amount less than 12 units the tuition fee id 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, $\$ 2.00$.
Late application for admission (after September 3, 1923, or January 31, 1924), $\$ 2.00$.

Late registration, $\mathbf{\$ 2 . 0 0}$. (After date set as registration day.)
Late filing of registration book, $\mathbf{\$ 2 . 0 0}$. (More than seven days after registration.)

Late examination in Subject A, $\$ 2.00$.
For courses added after date set for filing study lists, $\$ 1.00$ per course.
For courses dropped after date set for fling study lists, $\$ 1.00$ 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 text book deposit is $\$ 20$, payable by every student subject to military training before his study card is filed. Military training is prescribed for all first and second year undergraduate male atudents 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 text books for the ase of students recaiving 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 Sonthern 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 Callfornian; admission to all athletic contests (with the exception of final intercollegiate
contests) held on the campus under the jurisdiction of the Associated Stadents.

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

## SOHOLARSHIPS

The Committee on Undergraduate Scholarships in the University of Cali; fornia if 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 which precedes 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

The cost of board and lodging in boarding houses near the Southern Branch is from $\$ 40$ to $\$ 55$ 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. 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. Rents near the campus for unfurnished apartments, housing four or more persons, range from $\$ 65$ up.

There are no dormitories maintained by the Southern Branch. Lists of approved boarding and rooming places are published at the opening of every session. No woman is permitted to complete her registration unless her living accommodations are first approved by the Dean of Women.

Lists of boarding and rooming places and further advice concerning living accommodations may be obtained at the office of the Dean of Women, Millspaugh Hall, or from the Information Clerk.

## The Cafteteria

The cafeteria which is maintained by the University serves luncheon for the accommodation of those in attendance at the University. It is located on the northern part of the campus.

## Employment

Women students desiring employment should apply at the office of the Dean of Women, Millspaugh Hall, between 10 a.m. and 12 m . 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. Opportunities also exist for obtaining employment on an hourly basis.

Men students desiring employment should apply to Professor Mansfield, Mechanic Arts Hall.

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 intelligently 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 eutire course. There is no expense to the school officials or to graduates for the service rendered by this office.

Little can be done 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 expense of the first half-year.

## LIBRARY, GYMNASIUM, INFIRMARY

## The Library

The Library is located in a separate building with a capacity of 50,000 volumes. The reading rooms will accommodate 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 about 50,000 volumes and 10,000 pamphlets. About 5,000 books are added annually.

The Library subscribes for 340 leading periodicals, professional and gèneral. In addition there are about 8,000 bound volumes of the literary and educational periodicals.

# 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 mon at a time in the shower room. The athletic field measures $300 \times 600$ 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 bnilding of a swimming pool, $50 \times 100$ feet, at the rear of the Gymnasium, is projected for the coming year.

## For Women

The Women's Gymnasium is well equipped. Besides a main hall, $60 \times 80$ 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, $200 \times 300$ 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. 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; in which the historical expression of the Christmas thought is 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 8ELF-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-curriculum 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 worl 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 approyal of the Director, the University Affairs Committee, composed of seven members, passes on all cases of misconduct among the students.

## Publications

The Cub Californian and The Southern Campus are the official publications of the students of the Southern Branch.

The Cub Californian, the student paper, is published semi-weekly. The $C u b$ 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 yearbook. It contains a complete reeord of the college life of the year, and is edited, managed, and financed by the students.

## Co-opirative Store

The Students' Co-operative Store was opened by the students of the Normal School in 1916, with the parpose 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, because of crowded conditions, to get subjects which they need. 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 Sessions. The courses of instruction are mainly 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 Junior Orpheum Building, Los Angeles.

Summer Sessions are conducted at the seat of the University in Berkeley and at the Southern Branch in Los Angeles. In addition, tho Intersession of six weeks has been organized in Berkeley, and immediately precedes the Summer Session.

## 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 offèrs 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 Junior Orpheum Building.

## VII. CURRICULA

The curricula at the University of California, Southern Branch, are divided into two colleges: A-The College of Letters and Science, and B-The Teachers College. For the announcement and description of courses see p. 79.

## A. COLLEGE OF LETTERS AND SCIENCE

## INTRODUCTORY

The curricula in the College of Letters and Science offer the first three years of academic work and prepare students to transfer with full credit to the junior and senior years in the departments of instruction at the University of California at Berkeley, or at other collegiate institutions.

## The Junior Gertificatr

Registrants in the College of Letters and Science will receive upon the 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 status.

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.

The degree requirement of 124 units is calculated on the assumption that the student will normally take 64 units of work in the freshman and sophomore years, including the prescribed work in military science and physical education and lygiene, and 60 units in the junior and senior years. The junior certificate will, however, be granted on the completion of not less than 60 units of college work and the fulfilment of the following general and specific requirements.
(a) General University requirements. ${ }^{1}$ Subject A. Psychology $X$. Military, 6 units (men). Hygiene, 1 unit (men), or 2 units (women). Physical Education, 2 units.
(b) Foreign Language. At least 15 units in not more than two languages, but nothing loss than a full year of each language studied may count toward this requirement. 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.
(d) Natural Seience. At least 12 units chosen from the following list: High School Physics" (3s), 3 units ( 1 high school credit). High School Chemistry" (3b), 3 units ( 1 high school credit). Astronomy 1, 11. Bacteriology 1". Botany 1, 2A"-2B*. Chemistry 1A"-18, 2A-28*, $5^{*}, 6 A^{*}-6 \mathrm{~B}^{*}, 8 \mathrm{~A}-8 \mathrm{~B}$. Geology 14, 18, 10, 2c-2d, $6^{*}$. Mineralogy $1 A^{* *}-1 B^{*}$, 2 Ar . Paleontology 1. Physies 2A-2B; 3A*-3B*. Zoology 1A"-1B*, 10, 15.

[^12]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 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 Acoeptable in Fulfilment of Requirement (e) for the
Group 1-English and Public Speaking
English $1_{A-18 ; ~ 56 A-56 B ; ~ P u b l i c ~ S p e a k i n g ~ 1 a-1 b . ~}^{\text {P }}$

## Group 2-Foreign Languages

French: any two consecutive courses of $A, B, C, D, 5$, 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 fear sequence from the following: C, D, 1, 5, 102, 106. The third and fourth years of high school Latin are accepted as the equivalent of a year course.
Spanish: any two consecutive courses of A, B, C, D, or any upper division year sequence.

## Group S-Mathematics

Any two of the courses of $\mathbf{0}, 3 \mathrm{~A}-3 \mathrm{~B}, 6,8$. High school plane trigonometry (2e) and plane analytic geometry (2f) will be accepted in partial satisfiaction of this requirement, each to count for 2 units.

## Group 4-History, Economics, Political Science

History $4 \mathrm{~A}-4 \mathrm{~B}, 7 \mathrm{~A}-7 \mathrm{~B}, 8 \mathrm{~A}-8 \mathrm{~B}, 2 \mathrm{~A}-2 \mathrm{~B}$ if supplemented by a related course. Commerce 1a-1b (Liconomics 1A-1B).
Political Science 1a-1b.

> Group 5-Philosophy

Philosophy $1_{A}-1 \mathrm{~B}$; 3A-3B; or 4A-4B.
Summer Session Courses. Some of the courses offered in the summer sessions are equivalent to courses offered in the fall and spring sessions, and these will be accepted in fulfilling requirements (b), (c) or (d). Students are advised to complete requirement (e) in the fall or spring sessions. A year course within the meaning of requirement (e) is not to be considered as a stated number of units, but as a subject of serious study throughout an entire academic year. Students who purpose applying any of the work offered in summer terms in satisfaction of the requirement of a year course for requirement (e) must have their programmes specially approved in advance by the Dean of the College.

## additional Coursis acceptable in Fulfillment of Requirements for Junior Certificate

Oniversity Extension. Certain coursee 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.

## DEPARTMENT OF COMMERCE

The requirements for the junior certificate in the Department of Commerce are as follows:
Subject A: English Composition. Examination required of all.*
Psychology X.
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.
History or Political Science: Units
History $4 \mathrm{~A}-4 \mathrm{~B}$, or History $8 \mathrm{~A}-8 \mathrm{~B}$, or Political Science $1_{A}-1_{B}$, or any combination of the foregoing courses 6
Geography:
Geography 1a (Fundamentals of Modern Geography) and 3A (Introduction to Economic Geography)..................... 6
Natural Sciences .................................................................................. 9
Mathematics:
Mathematics B (Plane Geometry) ............................................ 3
Mathematics 1 (Advanced Algebra) ...................................... 3
Mathematics 2 (Mathematics of Finance) ........................... 3
Economice:
Economics 1A-1B ........................................................................... 6
Military Science, Physical Education, Hygiene ......................... 9
Electives ............................................................................................... 19
Total ................................................................................ 64

Courses in physics and chemistry taken in high school may be applied toward the satisfaction of the science requirement.

The prerequisite to Mathematics 2 is Mathematics 1 or 1c. For Mathematics 10 elementary algebra is necessary and at least a first course in algebraic theory is strongly recommended. (Algebraic theory withl elementary algebra and plane geometry should be taken in high school.)

## 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.

- To receive the degree of Bachelor of Arts or Bachelor of Science at Berkel誩, the student must have completed at least 54 units of college work

[^13]after the receipt of the junior certificate, of which 36 units must be in upper division courses.

The maximum number of units toward the degree of Bachelor of Arts or Bachelor of Science accepted at the University of California at Berkeley for work done in the College of Letters and Scieuce at the Southern Branch is 100 units.

The final or senior year, including at least 24 units, must be taken in resident courses of instruction at Berkeley.

## B. THE TEACHERS COLLEGE

The curricula in the Teachers College are of the following types:

1. Two and one-half year courses leading to-
a. The Kindergarten-Primary Credential, valid in the kindergarten and grades 1, 2 and 3 of the elementary school.
2. The Elementary Credential, valid in the eight grades of the elementary school.
3. Three-year courses leading to the Elementary Credential in Fine or Industrial Arts, Music and Home Economics, valid in the eight grades of the elementary school and in grades 7, 8 and 9 when organized as a junior high school.
4. Four-year courses leading to the degree of Bachelor of Education and to the following types of teaching credentials:
*a. The Junior High School Credential valid in grades 7, 8 and 9 when organized as a junior high school.
"b. The Secondary Credential in Art, Commerce, Home Economics, Mechanic Arts, Masic or Physical Education, valid in secondary and junior high schools.
"c. The Kindergarten-Primary Credential, valid in the kindergarten and grades 1, 2 and 3 of the elementary school.
d. The Elementary Credential, valid in the eight grades of the elementary school. Opportunity is provided for specialization in one or more of the following felds:
(1) Elementary school supervision.
(2) Departmental work in the various elementary school subjects.
(3) Rural supervision and administration.
(4) Civic education (Americanization).
(5) Adjustment and opportunity room work.
(6) Vocational and part time education.
[^14]
## REQUIREMENTS FOR GRADU̇ATION FROM THE TEACHERS COLLEGE

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

## I. Admission to the Teachers College.

II. Completion of a total of 128 units or credit, inclusive of physical
: education, hygiene, and military science.

## 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 Sequences 47 or 48 units

1. Subject $\mathbf{A}$2. Psychology X1 nnit
2. Biological Sciences ..... 6Elective sequences in Botany, Zoology or Physi-ology. One course must include laboratory work.
3. English 1a ..... 3
English (elective) ..... 3
4. Physical Sciences ..... 8
Courses in Physics, Chemistry, Geography, Geologyand Meteorology, Mathematics, Astronomy or Logicwill be acceptable, subject to approval of adviser.
5. Psychology 2, 30 ..... 6
6. Social Sciences:
Commerce 1a ..... 3
Political Science 50 ..... 3
Elective sequences in History, Economics, Political Science ..... 6
7. Military Science 1ab, 2ab (men) ..... 6
8. Physical Education 1 (Hygiene) (men) ..... 1
9. Physical Education 2 (Hygiene) (women) ..... 2
10. Physical Education 10, 11 (women) ..... 4
11. Physical Education (required courses for men and women. One-half unit per semester) ..... 2
Total ..... (M) 48, (W) 47 units
b. Departmental Sequences: Approximately 40 units.Sequences principal and secondary shall be selected fromcourses offered in the following departments: (1) Art, (2)Biology, (3) Chemistry, (4). Classical Languages, (5) Com-merce, (6) English, (7) Geography, (8) Geology and Meteor-ology, (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 dess than 5 units in each of three departments. Including upper and lower division courses, at least 12 units must be completed in one depart- ment. Upper division courses are designated by numbers 100-199.
c. Professional Sequences: Professional sequences, principal andsecondary (approximately' 40 units); are prescribed asfollows:
12. Principal Sequences- ..... units
*Education 11 ..... 3
Education 114 ..... 2
Education 140 ..... 3
*Education 142 ..... 3
*Education 165 or 166 ..... 3
Psychology 107 or Philosophy 136 ..... 3
$\dagger$ Teaching 190A, 190b ..... 10
13. Secondary Sequences, 12-14 units.Professional courses leading to specialization in varionsfields of education to be chosen by the student with theapproval of his adviser.
[^15]
## KINDERGABTEN-PBIMARY TRAINING CURBICULA

## Suggested Four-Year Curiziculum Lifading to the Degree of Bachelor of Education and to Recommendation for the KindergartenPrimary Traching Credential <br> 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 assignnent to practice teaching will be made.

## Freshman Year



## Senior Year



## Seeond Semester

Education 126......................................... 3
Departmental Bequences....................... 10
Education 140......................................... 3
$\frac{3}{16}$

[^16]
# KINDERGARTEN-PBTMARY TrAINING OURBIOULA <br> Thr short Curriouldm Leading to Recommendation for thet Kindergarten-Primary Teaceing Cbedential 

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.

## Freshman Year

| First Semester | Second Semester |
| :---: | :---: |
| Units | Units |
| Subject A... | Payahology 2...................................... 3 |
| Paychology x...................................... 1 | Zoology 12......................................... 3. |
| *Botany 1 or Agrioulture 10.................. 3 | Physical Education 12A...................... 2 |
| Commerce 1A....................................... 3 | Musio 61a........................................... 2 |
| *Geography 14..................................... 3 | Art 51a.............................................. 2 |
| English 14........................................... 3 | Education 21...................................... 3 |
| Physical Education.2......................... 2 | Physical Education (required course).. |
| Physical Education (required course) \& |  |
|  | 153 |
| 153 | . . |
| SopH0 | Year |
| Firat Semestor | Sacond Semester |
| Politioal Science 80.............................. 3 | Education 127..................................... 2 |
| Psyohology 30..................................... 3 | Education 140.................................... 3 |
| Physioal Pducation 128...................... 2 | Commerce 184.................................... 2 |
| Education 142.................................... 3 | Public Speaking 15a or 158................. 3 |
| Art 518............................................... 2 | History 11............................................ 2 |
| Engligh 124.......................................... 2 | Departmental Sequences..................... 2 |
| Physioal Education (required oourse).. | Physical Education (required course).. \$ |
| 153 | 143 |

## Junior Year <br> Firat Semester

Education 114........................................ 2
Education 124........................................ 3
Teaching K180A .................................... 5
Teaching K1908 ..................................... 5
15

[^17]
## ELEEMENTARY SOHOOL TRATNING OURRICULA

## Sugarsted Four-Year Curriculum Leading to the Degrer of Bachelor of Eduoation and to Ricommendation for thr Elementary Traching Credential



## FLEMEENTARY SOHOOL TRATNING OURRIOUIA

## The Short Course Leading to Recommendation for the Elfmentary Teadeing Credential

## Freshman Year



| JUNTOR Y FAR |  |
| :---: | :---: |
| First Semester |  |
|  | Units |
| Education 114. | 2 |
| Fducation 140.......... | 3 |
| Teaohing E190x ................ | 5 |
| Departmental Sequemces (ele | ... 2-4 |
|  | 12-14 |
| Total...................... | . 76 |

[^18]
## JUNIOR HIGH SOHOOL TRAINING OURRICULUM

## Suggestid Four-Yrar Curriculum Leading to the Degree of Bachelor of Education and to Recommendation for the Junior High School Teaching Credential



[^19]
## gedondary fint arts training currioulum

## Sugarsted Four-Year Curriculum Leading to the Degree of Bachelor of Education and to Recommendation for the Secondaby Special Teaching Credential in Aby


Sentor Year

First Semester
Art 158a................................................... 1

Art 162..................................................... 1
Art 168..................................................... 1
Art 175a................................................... 2
Education 178......................................... 3
Art 152..................................................... 2
Art 183..................................................... 2
English 153.............................................. 3

Education 114......................................... 2

## Second Semester

Art 1528................................................... 2
Art 154..................................................... 2
Art 180.................................................... 2
Teaching A192A....................................... 4
English 154.............................................. 3
Education 140......................................... 3

## SEOONDARY INDUSTRIAL ARTS TRATNING OUBBIOULUM

Suggested Four-Year Curriculum Leading to the Degree of Bachelor of Eduoation and to Recommendation for the Secondary Sprcial Traching Credentlal in Industrlal Arts
The curriculum for this course is the same as for the Secondary Fine Arts Training Curriculum, with the following additions and omissions.
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ADD
Art 9 (2), 29A-29B (4), 119A-119B (4), 139A-139B (4), 149 (2), 159 (2), 189 (2), Art electives (3).

## ELEMENTARY FINE ARTS TRAINING OURRIOULUM

## The Short Curriculum Lieading to Recommendation for fie Elementary Special Teaching Credential in Fine arts

## Frishman Yrar


Sophomort Year
First Semester
Art 158a. ..... 2
Art 8B. ..... 1
Art 32A. ..... 2
Art'134A. ..... 1
Art 31a. ..... 1
Art 160A ..... 2
Art 137A. ..... 1
Art (elective) ..... 2
Teaching A190A. ..... 3
Physical Education (required course) ..... 1
Physical Education 11s (women) ..... 2
Military Science 2a (men) ..... 11

## Second Semaster

Art 134B. ..... 2
Art 185. ..... 2
Art 32B ..... 2
Art 318 ..... 1
Art 160s. ..... 2
Teaching A190s. ..... 8
Philosophy 136. ..... 3
Physical Education (required course).. ..... 1
Military Science 2s (men) ..... 14

## Junior Year



## ELEMENTARY INDUSTRIAL ABTS TRAINING OURRIOULUM

## The Short Currioulum Leading to Recommendation for the Elementary Speclal Credentials in Industrial Arts

The curriculum for this course is the same as for the Eilementary Fine Arts Training Curriculum, with the following additions and omissions.

## OMIT

Art 4b (1), 16b (1), 103b (1), 134A-134b (3), 135 (2), 137A-137b (3), 154 (2), 161 A-161в (2), 162 (2), 168 (1), 175a (2), 183a (2) 156A (2).
ADD
Art 9 (2), 29A-29b (4), 119A-119b (4), 139a-139b (4), 149 (2), 159 (2), 189 (2), Art electives (4).

## gECONDARY SPEOLAE OOMMEROE TRAININTG OURRIOULUM

## Sugarsted Four-Year Curriculum Leadnna to the Degree of Bachelor of Education and to Rroommendation for the Secondary Speotal Teaohina Credential in Commerce


gECONDARY SPECIAT HOME ECONOMICS TRAINTNG CURBIOULUM*
Suggested Four-Year Curbiculum Lrading to the Degrer of Bachelor of Education and to Recommendation for the Secondary Speclal Teaching Credential in Home Economics


Sophomore Yeaz
First Semester

## Second Semeater

Art 13A ..... 2
Chemistry 10 ..... 4
Home Eeonomics 11s ..... 3
Home Economics 1A. ..... 3
Physiology 1 ..... 3
Physical Education 11 ..... 2
Physical Education (required course) ..... 1
Psychology 30 ..... 3
Home Economics 13. ..... 3
Home Economics 33. ..... 3
Home Economics 47a ..... 3
History 7B. ..... 3
Physical Education (required course). ..... 117)173

Junior Year

| First Semester |  |
| :---: | :---: |
| Home Economics 47B... | 2 |
| Home Fconomics 169. | 8 |
| Home Economics 175.. | 3 |
| Physice 11..... | 3 |
| Home Economics 160. | 2 |
| Teaching H180^............................ | 2 |

Second Semester
Art 28 ..... 2
Baoteriology 1 ..... 3
Education 140 ..... 3
Political Science 50 ..... 3
Teaching H191a ..... 4

## Shanior Yrar

| First Semester |  |
| :---: | :---: |
| Chemistry 107. | 4 |
| Education 114. | 2 |
| Departmental Sequences.................... | 3 |
| Home Eonnomics 170. | 3 |
| Home Econonics 171. | 1 |
| Eduaation 178. | 3 |
|  | 16 |

Second Semester
Departmental Sequences...................... 3
Philosophy 136......................................... 3
Home Economics 159 (or H. E. 185 or
H. E. 183 or H. E. 179).................... 6

Teaching H192A-H1928........................ 4

[^20]
# VOCATIONAL SPEOIAL HOME ECONOMIOS TRAINING OURRIOULUM * <br> The Short Curbiculum Leading to Recommendation por trie Secondary Special Teaching Credential in Vocational home Economics 



[^21]
## gEOONDARY SPEOLAL MEOHANIC ABTS TRAINTITG CURRICULUM

## Sugarsted Four. Year Curbiculum Leading to the Degree of Bachelor of Eddoation and to Recommendation for the Secondary Special Trachina Credential in Mecieantc arts



Education 140...................................... 3
Mechanic Arts 1508............................ 3
Mechanic Arts 165B............................. 3
Teaching MA182a................................ 5
Industrial History 176......................... 2
Education 114. ..... 2

# Curricula 

## Sinior Year



[^22]Jenior Year
First Semaster Second Semester
Departmental Bequences. ..... 3
Music 1028. ..... 1
Music 112в ..... 3
Music 133b. ..... 2
Music 155b. ..... 2
Music 109 ..... 1
Music (eleotive) ..... 2
Teaching M190s ..... 2
Teaching M191 ..... 1
Senior Year
Firat Semeater
Education 178. ..... 3
Departmental Sequences. ..... 2
Music 105A. ..... 2
Musio 184 ..... 2
Music 185a ..... 2
Teaching M102 ..... 4

## Second Semester

Departmental Bequences. ..... 3
Education 140. ..... 3
Education 114. ..... 2
Public Speaking 1a. ..... 3
Muaic 105b ..... 2
Music 185b ..... 2

## gEOONDARY SPECIAL PHYSIOAL BDUOATION TRAINING CURRICULUM-(MEN)

# Suggested Four-Year Curbiculum Leading to the Dearer of Bachelor of Education and to Recommendation for the Secondary Spectal Teaching Crmdential in Physical Education 

## Freshman Year

First Semester

Units

Subjeot A

Peychology $x$. ..... 1
Chemistry 2a. ..... 4
Hygiene 1 ..... 1
Commerce 1^ ..... 3
Military Scienco. ..... 11
History (eleotive) ..... 3
Physical Education 1a ..... 1
Physical Education 29a ..... 1

## Second Semester

Units
Psyohology 2.
Chemistry 2B
English 1a.
History (eleotive)................................. 3
Military Saience.................................... 1\&
Phytical Education 1b........................ !
Physical Education 298....................... 1

Curricula
77

## Sophomori Year

| , First Semester |  | Second Somester |  |
| :---: | :---: | :---: | :---: |
| Zoology 1a......................................... | 6 | Philosophy 136.................................... | 8 |
| Paycholoray 30.................................... | 3 | Zoology 35......................................... | 5 |
| Public Speaking 14............................. | 3 | Physical Education 158...................... | 2. |
| Political Science 50............................. | 3 | Physical Education 170...................... | 2 |
| Military Science................................. | 14 | Military Ecience................................. | 11 |
| Physical Education 7a........................ | $\frac{1}{1}$ | Physioal Educstion 8a....................... | 1 |
| Physical Education 290...................... | 1 | Phyaical Education 29D..................... | 1 |
|  | 17 |  | 16 |
|  |  | - |  |
| Junior Year |  |  |  |
| First Semeater |  | Second Semester |  |
| Physical Education 49........................ | 2 | Physical Educstion 5........................ | 1 |
| Physical Education 190a.................... | 3 | Phytical Education 1908...................: | 8 |
| Teaching P190a.................................. | 2 | Teaching P192A................................. | 8 |
| Phyaical Education 165a.................... | 2 | Physioal Education 182a.................... | 8 |
| Eleotive ............................................. | 3 | Physical Education 308...................... | 1 |
| Phyrical Education 30A. | 1 | Physical Education 155B................... | 2 |
| Education 114.................................... | 2 | Eduoation 178......................... | 8 |
|  | 16 |  | 16. |
| Senior Yrat |  |  |  |
| First Semester |  | Second Semester |  |
| Phyrical Education 1828.................... | 3 | Physical Education 1808.................... | 8 |
| Physical Education 180A................... | 3 | Physical Education 1028................... | 8 |
| Physical Education 192A.................... | 3 | Teaching P182c.................................. | 8 |
| Teaching P1928 ................................. | 2 | Education 140.................................... | 8 . |
| Elective ............................................. | 3 | Phymical Eduoation 156a................... | $2{ }^{\prime}$ |
| Physical Education 30c...................... | 1 | Physical Education 30D...................., | 1 |
| Physical Education 156a.................... | 2 | Departmental Sequences.................. | 2 |
|  | 17 |  | 17 |

# GECONDARY SPEOIAI PHYSIOAL TRAINING OURRICULUM(WOMEEN) 

# Sugaested Four-Year Curiticulum Leadina to the Degree of Bachelor of Education and to Recommendation for the Secondary Special Credential in Physioal Education 



## VIII. ANNOUNCEMENT OF COURSES

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

1: Courses designated by a double number (i.e., Commerce 1a-18) are continued through two successive semesters. In registering for the course the student will use the first number for the first semester, and the other number for the second semester. 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 semester with final credit for the work completed.
2. The credit value of each course in semester units is indicated by a numeral in parentheses following the title.
3. The period during which a course is given is shown as follows: I., first semester; II., second semester; Yr., throughout the year.
4. 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.
5. 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.
(b) An italicized title enclosed in parentheses immediately following the course description; thus-Elementary Food (Houschold Soience 1B).
6. 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 trpen. subject in every case to the requirements of the carriculum selected.
(B) Courses which may be connted toward the bachelor's degree in. the Teachers College and toward appropriate recommendations for teaching.

[^23]
## ART

-Nrllif Huntington Gere, Associate Professor of Fine Arts.

- Helen Clark Chandler, Assistant Professor of Fine Arts.
-Louise P. Boy, Assistant Professor of Fine Arts.
-Anna P. Brooks, A.B., B.S., Assistant Professor in Fine Arts.
- Bessie E. Hazen, Ed.B., Instructor in Fine Arts.

Annita Delano, Associate in Fine Arts.

- Helen Howell, Associate in Fine Arts.
-Olive Newcomb, Associate in Industrial Arts.
-Birdie Kirk Smith, Associate in Fine Arts.
- Natalie White, Bes., Associate in Industrial Arts.
-Belle H. Wrimice, Associate in Industrial Arts.


Laboratory Fees.-The fee required for courses $4 \mathrm{~B}, 29 \mathrm{~A}, 29 \mathrm{~B}, 134 \mathrm{~A}, 20 \mathrm{~B}$, $10 \mathrm{~B}, 158 \mathrm{~A}, 158 \mathrm{~b}, 169 \mathrm{~A}, 169 \mathrm{~B}$ is 50 cents ; for courses $8 \mathrm{~A}, 8 \mathrm{~B}, 168,198 \mathrm{~A}, 198 \mathrm{~B}$, it is $\$ 1$; for courses $119 \mathrm{~A}, 119 \mathrm{~B}, 139 \mathrm{~A}, 139 \mathrm{~B}$, it is $\$ 2$; for course 134 B it is $\$ 4.50$; for course 154 it is $\$ 6$.

## Preparation for the Major

Required: $1 \mathrm{~A}-1 \mathrm{~B}, 4 \mathrm{~A}-4 \mathrm{~B}, 2 \mathrm{~A}-2 \mathrm{~B}, 12 \mathrm{~A}, 31 \mathrm{~A}-31 \mathrm{~B}, 32 \mathrm{~A}-32 \mathrm{~B}$. (16 units.) $\checkmark$ 1A-1B. Appreciation and History of Art. (1-1) Yr. (Credit A, B) Tu Th, 1.

Gre
$\checkmark$ 2a-28. Design. (2-2) Arid II A, B) toner Brooks, Hazes white MW F, 8,9 ; MW F, $2,3$.

Study of the foundation of all composition, spacing, massing and color harmony.
3. Costume Appreciation. (1) II. (Credit B) Soy Tn, 10, 11.

Discussion and demonstration of costume and its relation to the individual.

4A.. Freehand Drawing. (2) I. (Credit A, B)
Smith, Hazed
MW F, 8, 9; MW F, 2, 3.
©. Freehand Drawing. (f) II. (Credit A, B)


Making of working drawings and miniature sets. Construction and painting of stage setting. Study of processes used in decorating tad making costumes.

「. Elementary Construction.
(2) II. (Oredit B)

Whits
10s. Fine Arts Education. (2)
(2) Either ${ }^{\text {remester }}$ (Credit B) Tu Th, 1, 2.

1GB. Industrial Arts Education, (8)-II. (Credit_B) Th, 1, 8n
$\checkmark$ 12A. Lettering. (1) I. (Credit A, B)
whitrie swiyyStudy and appreciation of lettering as a part of the subject of design.

For home economics students. Appreciation and study of costume and original designing.
$\checkmark$ 16. House Furnishing. (1) II. (Credit B) Hazen, Grre Including history of furniture.

26. House Design and Furnishing. (2) III (Credit B)

Hazen
M W F, 10; M, 12; M W F, 2; F, 12; M W F, 3; W, 12.
For home economics students.
$\checkmark$ 29a-29b. Bookbinding. (2-2) Yr. (Credit B) Whitice
r 31s-31b. Appreciation and History of Art. (1) Yr. (Credit A, B) Grrr $\checkmark$ 32a-323. Design. (2-2) Yr. (Credit A, B) Delano whita Imaginative and industrial design.
$\checkmark$ 103. History of Costume. (1) II. (Credit B) Sooy Lectures on historical costume.

Hand building and glazing. Use of potter's wheel, making of molds and casting.
$\checkmark$ 134a. Drawing from Figure. (1) I. (Credit A, B) Chandler Imaginative figure drawing.
$\checkmark$ 134B. Drawing from Costumed Model. (2) II. (Credit A, B) Smith
135. Illustration. (2) II. (Credit B)
137A. Sketching. (1) I. (Credit B). Landscape.
$\sqrt{137 \mathrm{~B}}$. Sketching.
(2) II. (Credit B) Landscape.
$\sqrt{ } 139 \mathrm{~A}-139 \mathrm{~B}$. Weaving. (2-2) Yr. (Credit B)
Whirs
History of weaving and study of materials used. Tapestry and pattern weaving.
$\checkmark$ 149. Basketry. (2) I. (Credit B)Whimics$\checkmark$ 152A-152b. Design. (2-2) Yr. (Credit A, B)DelanoAdvanced imaginative and industrial design.
$\checkmark$ 154. Life Class. (2) II. (Credit B) Smith
$\checkmark$ 156a-156b. Interior Decoration. (2-2) Yr. (Credit B) ..... 
$\downarrow$ 158A. Textile Decoration. (1) I. (Credit B)
$\checkmark$ 158b. Textile Decoration. (2) II. (Credit B) Block printing, batik and tied dyeing.
$\checkmark$ 159. Advanced Pottery. (2) I.- I (Credit B) NewcombStudy of glazes. Stacking kiln and firing.
$\checkmark 160 \mathrm{~A}-160 \mathrm{~B}$. Principles of Art Education. (2-2) Yr. (Credit B)Brooks
$\sqrt{ } 161 \mathrm{~A}-161 \mathrm{~b}$. Appreciation and History of Art. (1-1) y $\gamma$. Gere (Credit A, B)
162. Poster Design (1) I. (Credit A, B) Smith
$\sqrt{ }$ 168. Stage Craft. (1) I. (Credit B) SootPrinciples of art studied through the medium of the stage, plusthe technical knowledge necessary to produce pantomimes, pageants,etc.



180. The Organization and Administration of Art Education. (2) II. (Credit B)

Soox
$\checkmark$ 183A-183b. Costume Design. (2-2) Yr. (Credit B) Soox
Designing of costumes for modorn use, also for pageants, pantomimes and plays.
 Study of the mediums of pen and ink, pencil and water-color.

- $V$ 186A-7thernterior Decoration. (2^R) FeI (Credit B) Soox

Composition and color harmony. Perspectives of interiors in various mediums.
$\checkmark$ 189. Bookbinding. (2*) II. (Credit B). Whitict
$\checkmark$ 193A-193b. Commercial Design. (2-2) Yr. (Credit B). Soox Composition plus technical requirements in advertising.
「198A-198b. Clay Modeling. (1-1) Yr. (Credit B) Newcomb

## BIOLOGY

-Lote Holmes Miller, Ph.D., Professor of Biology.
-Bennert Mills Allens, Ph.D., Associate Professor of Zoology.
-Frank E. Oldir, B.S., Assistant Professor of the Teaching of Agriculture.
-Sarah Rookrs Atsatt, M.S., Instructor in Biology.
-Pirie Davidson, M.A., Instructor in Zoology.
-Frederici M. Essia, Ph.D., Instructor in Botany.

- O. L. Sponsler, Ph.D., Instructor in Botany. Ruth G. Prrsons, B.S., Assistant in Zoology.

Laboratory Fees.-The fee for Bacteriology 10, Botany 2A, 2b, Physioology $I$, is $\$ 2.50$; for Zoology 1A, $1 \mathrm{~B}, 4,105,106$, a deposit of $\$ 5.00$ is required, of which a maximum of $\$ 2.00$ is returnable.

## AGRICULTURE

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

Lectures, three hours; laboratory, two hours.

## agricultural education

# 10. Elements of Agriculture. <br> (3) Either semester. (Credit B) Oider <br> Lectures, three hours; laboratory, two hours. <br> Lectures, W, 3; laboratory, M F, 3, 4. <br>  <br> <br> bacterioloay <br> <br> bacterioloay <br> 10. General Bacteriology. (3) II. (Credit-B) Essic Lectures and demonstrations. For home economics students only. 

## BOTANY

1. Fundamentals of Botany. (3) Either semester. (Credit A, B)

Essia
Elements of physiology, morphology, and taxonomy. Lectures and quizzes.

M W F, 8.
2a-2b. General Botany. (4-4) Yr. (Credit A, B) Sponsler Tu Th, 1.
Lectures, two hours; laboratory, six hours. Structure, relationships, origin, and activities of plants.
$\checkmark$ 104a-104b. Systematic Botany. (3-3) Yr. (Credit A, B)
Essig, Sponslemr
Six hours laboratory with informal lectures and fleld 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)

Mtllerr
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 aneient life of the earth, and some of the ways in which animals responded to such influences.

## PHYSIOLOGY

> $\sqrt{ }$ 1. General Human Physiology. (3) I. (Credit A, B) Atsatt
> Lectures, two hours; laboratory, three hours.
> Lectures, W F, 2; laboratory, M, 1, 2, 3.
> Prerequisite: Zoology 1A, Chemistry 2A-2B.
10. Physiology and Personal Hygiene. (3) mither-menter.-(Credit B)

Lectures, two hours; laboratory, three hours. Atsatt
Designed for those who plan to teach in the graded schools.

## zOOLOGY

1A-1b. General Zoology. (5-5) Yr. (Credit A, B)
Lectures, Tu Th S, 11 . Allen, Datiosornand-Anistantor
Lectures, three hours; laboratory, six hours; one required field trip.
4. Microscopical Technique. (2) Eithenternester: (Credit A) Pensons
Laboratory, six hours; assigned readings.
The preparation of animal tissues for microscopical examination.

$$
\begin{aligned}
& \text { 10. General Biology. (3) Either semester. (Credit A, B) DAvIDson } \\
& \text { Lectures, M W, } 8 \text {, and } 1 \text { hour quiz. } \\
& \text { An outline of the main facts and principles of animal biology with } \\
& \text { special reference to heredity and evolution. Lectures, sections, assigned } \\
& \text { readings, and reports. }
\end{aligned}
$$

12. Nature Study. (3) Either semester. (Credit B) Milurer
M W F, 0; M W F, 11.
Lectures, readings, reports on materials and methods.
${ }^{103 .}$ Experimental Zoology. (2) II. (Credit A, B) Allen
13. Advanced Vertebrate Embryology. (3) I. (Credit A, B) AllesLectures, one hour; laboratory, six hours.Prerequisite: Zoology 1A and either 1b or 35, and junior standing.
14. Comparative Anatomy of the Higher Vertebrates. ..... (4) II.(Credit A, B)DavidsonLectures, 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.
15. Zoology of the Higher Vertebrates. (3) II. (Credit A, B) MillerLectures, two hours; laboratory, three hours with field trips to bearranged.

Prerequisite: junior standing and Zoology 14.
Emphasis will be placed on the habits, distribution, and ecology of reptile, bird, and mammal.

## OHEMASTBY

- Whllam Conger Morgan, Ph. D., Professor of Chemistry.
- William R. Crowell, Ph.D., Assistant Professor of Chemistry.
- G. Ross Robirtson, Ph.D., Assistant Professor of Organic Chemistry.
- Hosmer W. Stons, Ph.D., Assistant Professor of Inorganic Chemistry.
- Max S. Dunn, Ph.D.; Instructor in Chemistry.
-Russhll W. Millar, Ph.D., Instructor in Chemistry.
- James B. Ramsey, A.B., Instructor in Chemistry.

Laboratory Fees-

| .Courses | Deposit | Maximum Returnable |
| :---: | :---: | :---: |
| 2A, 2B ............................. | \$12.00 | \$5.00 |
| 10, 107 .............................. | 13.00 | 6.00 |
| 5, 6A, 6B, $120 \ldots$ | 17.00 | 5.00 |
| 1A, 18 ............................... | 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-2s or 1A-1B (6); trigonometry, Mathematics $3 \mathrm{~A}-3 \mathrm{~B}$ (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 ( $4 \mathrm{~A}-4 \mathrm{~B}$ ) and in mathematics ( $4 \mathrm{~A}-4 \mathrm{~B}$ ) 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 at Berkeley 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 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.

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) 干 (Credit A, B)
Stone, Dunn and Staff.
Lectures: MW F, 11 (for those beginning in September); Tu Th S, 11 (for those beginning in January).

Both halves given each semester.
Lectures or recitations, three hours; laboratory, three hours.
This course (or $1 \mathrm{~A}-1 \mathrm{~B}$ ) is required of all home economics and thysical 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) Cowell

A course in gravimetric and volumetric analysis, shorter than 6A6B. Required of petroleum engineers and of sanitary and municipal engineers.

Prerequisite: Chemistry 1a-1b.
6A-6B. Quantitative Analysis. (3-3) Yr. (Credit A, B) Trowel Required of economic geologists and College of Chemistry students. Prerequisite: Chemistry 1a-18.


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

Prerequisite: Chemistry 8a.
10. Organic and Food Chemistry. (4) I. (Credit B) 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) I. (Credit B) DUNN
Lectures or recitations, three hours; laboratory, three hours. Required of fourth-year home economics students. Prerequisite: Chemistry 8a and 9, or 10.
$\checkmark$ 110. Physical Chemistry. (3). Hf Credit A, B)
Prerequisite: Course 5 or 6a; Physics 1a-1b or 2a-2b. Lectures and problems. Required for all later work in physical chemistry.Incelar

110b. Advanced Physical Chemistry. (3). (Credit A, B)
Prerequisite: Course 110.
Lectures and problems. A continuation of course $\mathbf{H 0}$.
111. Physical Chemistry -Laboratory.

Prerequisite: Course 110 and calculus. Physico-chemical problems and measurements.
120. Advanced Inorganic Chemistry. (3). (Credit A, B)

Prerequisite: Course 6- 6 6 and 110.
Preparation and experimental study of substances designed prowarily to illaxitrate the factors when influence equilibrium and the speed of chemical reactions. Correlations of material by meats of the periodic system.

## OLABSIOAL ILANGUAGES

- Arthur Patch McKinlay, Ph.D., Assistant Professor of Latin. -Edwin Moore Rankin, Ph.D., Lecturer in Greek.


## Preparation for the Major

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

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

## Thir Major

The requirements for the major at Berkeley are Latin 102, 106, and 12 units selected from upper division courses in Latin. The remaining 6 units may be chosen from upper division courses in Latin, Greek, English, French, German, Italian, Spanish or other langaages, Linguisties, Boman Law, Jurisprudence, Philosophy, Ancient or Medieval History with the approval of the Latin Department.

## GREEK

$V$ Iab-2ab. Beginning Greek, Attic Prose, and Homer. (5-5) Yr.
(Credit A, B).
M Tu W Th F, 12.

$\checkmark$ 101. Introduction to Plato: Apology and Crito. (3) II. Credit A, B
103. Historical Prose: Herodotus. (3) I. (Oredit A, B) Rankin
$\sqrt{104 .}$ Greek Drama: Euripides and Aristophanes. (3) I. (Credit A, B)
Prerequisite: Greek 101.
RANEIN
(105. Greek Drama: Sophocles and Aeschylus. (3) II. (Credit A, B) Prerequisite: Greek 104. •RANkin

## LATIN



## commeroe

- Howard 8. Noble, A.B., M.B.A., Assistant Professor of Accounting.
-C. A. Le Deuc, M.B.A., Ph.D., Assistant Professor of Accounting.
- Earl J. Millmr, Ph.D., Assistant Professor in Economics.
-Elmer s. Nelson, M.A., Associate in Commerce.
-Eva M. Allen, Associate in Commercial Practice.
-Estrella B. Plojgh, Associate in Commercial Practice.
-W. T. McGrate, A.B., Absociate in Economics.
-Herman Hilmer, Ph.D., Lecturer in Economics.
Fees.-A fee of $\mathbf{\$ 2 . 5 0}$ will be charged for Commerce 16-B.


## Preparation for the Major

Required: (Economics course) Commerce $1 \mathrm{~A}-1 \mathrm{~B}$, at least one of the following: Political Science 1A-1B, History 4A-4B, or History 8A-8B or Philosophy 3A-3B.

Required: (Secondary Teachers' course) Commerce 1A-1B, 14A-14B, Commerce 18a.
$\checkmark$
A. Typing. (No credit.)
Allen
B. Shorthand. (No credit.)

Allen

## 1s-1b. Principles of Economies. (3-3) (Credit A, B) Nelison miffoctit

Lectures, $\mathrm{Tu} \mathrm{Th}, 8$ and 1 hour quiz; Tu Th 10 and 1 hr quiz.

"131. Elementary Statistics.
(3) I. F(Credit A, B)

#  

$\checkmark$ 150. Accounting Practice. (3) I. (Credit A, B)
Le Deut
$\checkmark$ 151. Advanced Accounting. (3) II. (Credit A, B
Le Deus
$\checkmark$ (160A-160B. Money and Banking. (3-3) Yr. (Credit A, B).
$V_{161}$. Corporation Finance. (3) II. (Credit B) $A$
$\checkmark$ 170. Principles of Marketing. (3) I. (Credit B)
171. Principles of Advertising. (3) II. (Credit B) 172. Alatemanship. (3) II. (Cretit-D)

$\checkmark$ 180. Economics of Transportation. (3) II. (Credit B) Nelson
V185. Principles of International Commerce. (3) I. (Credit B) Nelson
$\checkmark$ 190. Business Organization. (3) I. (Credit A, B) Nobles
*191. Business Administration. (3) II. (Credit A, B) Noble
C198. Methods in Gumineseiat Education (o) (II. (Cheat B)
GobBLE and DiMly

## Courses in Other Departments

Economic History (History 176).
Economic Geography (Geography ia)
Commercial Law (Jurisprudence 10a-10b, 18a-18s) [under Political Science].

Business English (English 1c)
Business Mathematics (Mathematics 2, 18).

[^24]
## EDUCATION

- Ernest Carroll Moore, Ph.D., LL.D., Director of the Southern Branch and Professor of Education.
- Martin L. Darsie, M.A., Associate Professor of Education.
-Charles Welkin Waddle, Ph.D., Supervisor of Training and Professor of Education.
- Benjamin W. Johnson, Lecturer in Education and Supervisor of Classes in the Training of Trade and Industrial Teachers.
-Katherine L. McLaughlin, M.A., Associate Professor of 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.


## - DD, Assistant Professor of Education:

-Frederick P. Worllner, Ph.D., Leeturer in Civic Education.
-Harvey L. Ebert, A.B., Associate Professor of Education.

- Lewis Adams Maverick, M.A., Lecturer in Vocational Education.
-J. Harold Williams, Ph.D., Lecturer in Education.
-Helen M. Christlansen, Associate in Education.

11. Principles of Teaching. (3) Either semester. (Credit B) Staff Tu Th, S, 8; Tu Th S, 9; Tu Th S, 10; Tu Th S, 12. Prerequisite: Psychology 2.
12. Introductory Kindergarten-Primary Education. M W F, 11.
(3) I. F(Crodit B)
moLaughlin
13. Civic Education. (2) Either semester. (Credit B) Woellunkr Tr Th, 2. Prerequisite: Political Science 50.
/124. Kindergarten-Primary Curricula and Methods. $\mathbf{M}^{\mathbf{W}} \mathbf{F} \mathbf{F} \mathbf{2}$.
(3) $I \mathbb{I}_{(\text {Credit B) }}$
Prerequisite: Psychology 2.
14. History of Kindergarten and Primary Education. (Credit B.) Tu Th S, 9.
$x$ 127. Principles of Kindergarten-Primary Number.


15. Principles of Secondary Education.
(3) Either semester.
(Credit B) M W F, 4.
Smith

180a-180b. The Junior High School. (3-3) Yr. (Credit B) Smite M W F, 10.
$\checkmark$ 186. Educational Diagnosis. (3) II. (Credit B) Darsie M W F. 4 .
The use of standard tests in school, class and individual diagnosis. Elementary statistical methods.

Prerequisite: Education 142.
189. Hintory or Education. (3) II. (Credit B) Mfore
$\checkmark$ 195. Supervision of Teaching. (2) I. (Credit B) Waddur Open to principals, supervisors, training teachers and those preparing for supervision. Prerequisite: two or more years of teaching experience.

Philosophy of Education (see Philosophy and Psychology).

## ENTGIISH

- Frimbricic T. Blanciard, Ph.D., Professor of English.
-Hgrbiart F. Allien, Ph.D., Assistant Professor of English.
-Siquid Brinhard Hustvedt, Ph.D., Assistant Professor of English.
-Llewellyn Buell, Ph.D., Assistant Professor of English.
- Percy H. Houston, Ph.D., Assistant Professor of English.
-Almard E. Lonautin, Ph.D., Assistant Professor of English.
- Charles A. Marsh, B.S., Assistant Professor of Argumentation.
- "Alicr O. Hunnewell. Instructor in English.
- Efalyn Thomas, A.B., B.L.I., Instructor in English.
- Margarint 8. Cabhart, Ph.D., Instructor in English.
- Harriet MacKrinzie, M.A., Instructor in English.
-Lily B. Campimll, Ph.D., Instructor in English.
- Carl S. Downer, Ph.D., Instructor in English.
-Katherine Collins, M.A., Associate in English.
-Mary Derby, Associate in English.
- Lambencer C. Lockley, M.A., Associate in English.
-J. F. MoGrew, Associate in Public Speaking.
- Lu E. Prarson, M.A., Associate in English.
-Louts C. Valentine, A.B., Associate in English. F.T.


## Sdbiect A: Enalish 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 Bouthern Branch must, at the time of their first registration, present themselves for examination in Subject A: English Composition.
(1) Students who pass Subject A are not required, but are advised, to continue their training in oral and written composition. (2) All students must pass Subject A examination. (3) No student who has not passed Subject A will be admitted to any University course in oral or 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 stand-

[^25]ing Subject $A$ is a requirement for junior standing. (7) Failure in the examination does not prevent admission to the Southern Branch. (7) The examination will be given at the Southern Branch, at the opening of the fall and spring sossions.

The examination will be composed, set, and jpdged 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.

## Prerequisitic for ther Major

English: 12 units (English 1a-1b and English 56a-56b).
Public Speaking: 12 units chosen from Public Speaking 1a-1B (or English $1_{A}-1 B$ ), 2A-2B, 5A-5B.
1a-1b. First Year Reading and Composition. (3) Either semester. (Credit A, B)
Blanchard, Allen, Hustvedt, Buell, Houston, Lonauril, Carhart, MacKifnzif, Campbell, Downes, Collins, Lockley, Pearson, Valentine

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.
$\checkmark$ 1c. English in Business Practice. (3) Either semester. (Credit A, B) Prerequisite: 1a.

Lockley
4a-4b. World Literature. (1-1) Yr. (Gredit A, B) W, 3 Blanchard This course is given in series, each of which may be taken onee.

12A. Reading, and the Teaching of English. (2) Either semester. (Credit B)

Stivantuh,
Sawybr
$\checkmark$ 12b. Literature for the Primary Grades. (2) Either semester. (Credit B)

MacKinzie
14. Literature for the Middle Grades. (2) II. (Credit B) MacKenziz 130 American Literature (3) (Credit A,B). Bahen

52A－528．Types of English Literature．（3－3）Yr．（Credit A，B）
 Gotr～Ron．
56A－56B．Survey of English Literature．（3－3）要公（Credit A，B）Houston allen，Heotradt，Bibl，longubi，Carbart，


114a－114s．English Drama from the Beginning to 1900．（3－3）Yr． （Credit A，B）

Lonaukit，Bul
117J．Shakespeare．（3）Either semester．（Credit A，B）M W F， 10. Blanchard，Hosted allan
 ALlies，

125c－125d．The English Novel．（3－3）Yr．（Credit A，B）M W F， 9. Blanchard

125․ Nineteenth Century Prose．（3）Either semester．（Credit A，B） Houston

161．Junior High School English．（2）I．（Credit B）MacKenzie

## public speaking


MARSH, revest
$\sqrt{\text { as－2B．The Fundamentals of Expression and Interpretation．（3－3）} \mathbf{X}_{\text {－}} \text { sicken }}$ （Credit A，B．）MW F， 11.

Thomas
$\checkmark 5_{\text {A－5b．Principles of Argumentation．（3－3）Yr．（Credit A，B）Marsh }}$ Prerequisite：Public Speaking 1A－1B or English 1a－1b and the con－ sent of the instructor．

10a－10b．Dramatic Interpretation．（3）Yr．（Credit A，B）Thomas
－15b．The Art of Story Telling．

## GEOGRAPHY

-Grorge M. McBride, Ph.D., Associate Professor in Geography.

- Myrta Lisle McClrllan, B.S., Assistant Professor of Geography.
-Ruth E. Bauar, A.B., Associate in Geography.
-Ford Ashman Carpenter, LL.D., D.Sc., Lecturer in Meteorology

Priparation for the Major
Required: Geography 1A, 1b, 2b; Geology 10, 20.

## The Major

The major at Berkeley includes Geography 113, 115, 116a. Students may have a maximum of not more than eight units of closely related work in other departments approved as a part of the units required for graduation.
1s. Fundamentals of Modern Geography. (Credit A, B)
(3) Either semester. M W F, 8; M W F, 9; M W F, 2; Tn Th S, 10; Tu Th S, 11.
Underlying geographic principles which control life on the earth; the effeet of environment upon the activities of man; various forms of geographic environment and a study in detail of type regions; especial emphasis upon the achievements of men in mastering handicaps of environment.

1B. Flementary Meteorology. (3) I. (Credit A, B) study of the earth's atmosphere aria the-hanges in it which produce our weather and influence human affairs.
2B. Map and Instrumental Study of Weather ahd Climate. (2) II. (Credit A, B)

Prerequisite: course 1 lb . pr equivalent preparation.
The making and recording of meteorological obsentations; practical work with meteorological instruments; a study of weathor and weather maps.

3A. Introduction to Economic Geography. (3) Either semester.
(Credit. A, B.) Tu Th B, 10.

McBride, McClellan
I'rerequisite: Geography 1s or equivalent preparation.
A study of the influence exerted upon the economic activities of man by his physical invironment, particularly by the form and structure of the land, the climatic conditions which prevail upon it, and the place relations in which its different regions stand to one another. $A+B$
(Applied Meteorology. ( $\mathcal{1}$ ) \#I (Credit A, B) Carpenter
Prerequisite: Geography 1A or 18.
Descriptive lectures dealing with all forms of weather science applied to local and general environment.
113. Geheral Climatology. (2X II. (Credit A, B) McBrids
Prenequisite: course 1B on equivalent preparation.
A studx of the principles underlying 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 races
115. Geography of California.

Tu Th, 1. and handicaps; a tracing of the relations between the natural resources of the state and man's activities.

116a. Geography of North America. (2) I. (Credit A, B) BadaH
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 relations to man and to the distribution of population and the localization of industries.

「116c. Geography of Europe. (2) II. (Credit A, B) BaúaH
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 inter-actions, socially and economically, among the various groups.

116d. Geography of Latin-America. (2) I. (Oredit A, B) McBride
Prerequisite: Geography 1a or Geology 1 c.
This course aims to ascertain the physical conditions characterizing the countries of Latin-America, particularly in their relation to the life of the inhabitants.
$\checkmark$ 128. Geographic Influences in American History. (2) II. (Credit A, B) MoBride
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.
169. The Teaching of Geograghy. (3) Either semestlor. (Credit B)
 McClellian Prerequisife: Geography or equivalent preparation. The fundamantal purposes of goography as an instrument of instruction; the changing point of view; the basic principles; the various methods of presentation; the use of materials.

## GEOLOGY

- Frederick P. Vickrry, M.S., Assistant Professor of Geology.
-Arid R. Whitman, Ph.D., Assistant Professor of Geology.
Laboratory Fees. -Mineralogy 1A, Lb, \$5; 2AB, \$2.50.
Traveling Expense.-Geology id, \$5; 5, \$5; 6, \$7.50; 102A-B, $\$ 15$ per semester.


## Preparation for the Major

Required: Chemistry 1A-1b; Physics 2A-2B; Mathematics C; Civil Engineering Ila- lb, 1ra-1fb; Geology 1a-1b, 5; Mineralogy la, lb, mab; Mechanic Arts O and 9.

Recommended: French, German, Chemistry 5, Geology 6.

## The Major

All majors must include Geology 102a-102b and 103.

## geology

1A. General Geology: Dynamical and Structural. (3) Either semester. (Credit A, B.) M W F, 9; Tu Th S, 8. Who Vickie Three recitations per week and four field trips (half-day) per semester. Sections limited to thirty students. Prerequisite: Chemistry and Physics.
18. General Geology: Historical. (2) Either semester. (Credit A, B)

Prerequisite: Geology 1A, lc, or Paleontology 1.

10. Elementary Physiography. (3) Either semester. ' (Credit A, B)
M W F, 11.

A study of the surface of the earth.
20-2d. Map and Field Study of Physiography. (1-1) $\mathrm{Pa}_{\boldsymbol{m}}(\boldsymbol{I}) \boldsymbol{T}$. (Credit A, B)

20 may be taken after or concurrently with 1 c .
5. General Geology: Field Work: Dynamical and Structural.
(1) Either semester. (Credit A)

May be taken after or concurrently with Geology 1A. Field excursons and reports.
6 (Credit A)

May be taken after or concurrently with 1B.

102a-102b. Field Geology. (2-2) Yr. (Credit A)
Prerequisite: May be taken after or concurrently with Geology 103. Geology 5 recommended. Credit is given only to students who take the year's work.

Field work with supplementary lectures and exercises in mapping.


## MINERALOGY

r. 1a-1b. Determinative Laboratory. (2-2) Yr. Credit A. Whitman Prerequisite: Chemistry.

2ab. Crystallography and Crystallographic Laboratory. (3) I. (Credit A)

Whitman
May be taken concurrently with or after Mineralogy 1A. The former is recommended.

## GERMAN

- William Diamond, Ph.D., Assistant Professor of German.
- A. K. DoLce, Ph.D., Instructor in German.


## Preparation for the Major

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 24 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. (Credit A, B.) M Tu W Th F, $9 . \quad$ Diamond, <br> 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. (Credit A, B.) M Tu W Th F, 9.
Diamond,

Prerequisite: Course A or two years of high school German.
$\mathbf{A}^{\mathrm{n}}-\mathrm{B}^{\mathbf{s}}$. Elementary German. (3-3) Yr. (Credit A, B)
 MW F, 12.
Exclusively for students looking toward work in medicine, engipeering or along general scientific lines.

Prerequisite: Course B or three years of high school German.

SC-SD: Scientific German. (3-3) Yr. (Credit A)
Prerequisite: Course B or $\mathrm{B}^{3}$ or three years of high school German.
This course provides special training in the reading of more or less technical texts and is intended for scientific. and professional students.

104a. Introduction to Modern German-Literature. (3) II.
Selected works of Hauptmann and Sudermanim
(Credit A, B)
DIAMOND
V 105a-105b. German Classics of the Eighteenth Century. (3-3) Yr. (Credit A, B)

Diamond
Selected works of Lessing, Goethe, and Schiller.
106A-106B. Grammar, Composition, and Conversation. (2-2) Yraseh
(Credit A, B)

## HIBTORY

-Frank J. Kinnarirg, Ph.D., Associate Professor of History.

- John Carl Parish, Ph.D., Assistant Professor of History.
-Joseph B. Lockey, Ph.D., Assistant Professor of History.
- Melva Latham, A.B., Assistant Professor of History.
-David K. Bjori, Ph.D., Instructor in History.
- Luey M. Gaines, M.A., Instructor in History.
-L. K. Koontz, Ph.D., Instructor in History.

Priparation for the Major


Required: History $4 \mathrm{~A}-4 \mathrm{~B}$, or $7 \mathrm{~A}-7 \mathrm{~B}$, or $8 \mathrm{~A}-8 \mathrm{~B}$, or $2 \mathrm{~A}-2 \mathrm{~B}$ plus some other related History course, and either Political Science $1 \mathrm{~A}-1 \mathrm{~b}$ or Economics $1 \mathrm{~A}-1 \mathrm{~B}$.

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

## THE Major

The major at Berkeley is twenty-four units of upper division work in history, or eighteen upper division units in history and six upper division units in either political science or economics approved by the department.

2A-2b. History of England and Greater Britain. (2-2) Yr. (Credit A, B) Tu Th, 12; Tu Th, 1.

Kuncesmas, Koontz

- 4a-4b. Social and Political History of Modern Europe (Credit A, B)

M W F, $\mathbf{8} \mathbf{~ ; ~ M ~ W ~ F , ~} 9$; M W F, 11 ; Tu Th S, 9.


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.
7 7. History of the United States since 1876. (2) Either semester. (Credit A, B)

Parish
$\sqrt{8 \mathrm{~A}-8 \mathrm{~B} \text {. The History of the Americas. (3-3) (Credit A, B) Lockry }}$ M W F, 12; M W F, 2.

# 11. Social Studies in the Kindergarten-Primary Grades. semester. (Credit B.) Tu Th, 9; Tu Th, 3. <br> (2) Either Latham Treats of sources of material, curricula now in use, and projects. Prerequisite: Psychology 2. 

38. Contemporary History. (1) Either semester. (Credit B) Gannes
39. Peviffecoant-Hiatery. (2) Either eamester (Oredit-B) Gainrs
40. The Social Sciences for Junior High Schools. (2) (Credit B)

Latham
111A-111b. The Development of Ancient Civilizations. (3-3) $\sim$, (Credit A, B.) M W F, 10.
131. The Renaissance. (3) I. (Credit A, B.) M W F, 12 Klivabrag
142. The French Revolution. (3) IL (Credit A, B) Klingberg
176. The Industrial History of the United States. (2) Either semester. (Credit A, B)

181A-181b. The History of the Westward Movement. (3-3) Yr. (Credit A, B)

Parisil
a. Settlement of the Mississippi Valley.
b. Migration Across the Plains and Mountains to the Pacific.
$\checkmark$ 183a-183b. The Expansion of Europe Since the Fifteenth Century. (2-2) Yr. (Credit A, B.) Tu Th, 11.

Klinabiag

## HOME EOONOMHCS*

-Hrilen B. Thompson, Ph.D., Professor of Home Economics.
-Bernict Allenj, B.8., Ed.B., M.A., Instructor in Home Economics.

- Orabrl Chitron, B.s., Associate in Home Eeonomies.
-Matdi E. Jenkins, B.S., Associate in Home Economics.
-Madd D. Evans, Associate in Home Economics.
- Elizabiti Lathrop, Associate in Home Eeonomics.
- Florenci A. Wilson, A.B., B.S., Associate in Home Economics.
- Pauline Lynch, associate in Home Economics.

Laboratory Fees.-The fee required for courses $1 \mathrm{~A}, 1 \mathrm{~B}, 2,69,75,79$ is $\$ 1$; for courses 66, 71, is $\$ 1.50$; for courses 11A, 118, 33, 59, 83, 85 is $\$ 2.75$.
1A. Textiles and Clothing (Household Art 1A). (3) Either semester.
(Credit A, B)
Wtudy of textile fibres and principles of simple garment construction.
Prerequisite: Art 6A.
18. Elementary Dressmaking (Household Art 1B).
(3) II. (Credit A, B) Winson
Prerequisite: Home Economics 1a and Art 13a.

11A. Elementary Food (Household Science 14).
(3) Either semester. (Credit A, B) Alurn, Evans

Food principles, selection and preparation.
Prerequisite: Chemistry 2a.
11b. Elementary Food (Household Science 1B) (3) Either semester.
(Credit A, B)
Economic aspects and service of meals.
Prerequisite: Chemistry 2 B, Home Economics 11A.
22. Home Economics Objectives.
(2) I. IL (Credit B)
 $\mathbf{T u} \mathbf{T b}, 10$. Required of freshmen.

[^26]
## $\sqrt{24 .}$ Home Economics Survey. (3) Either semester. (Credit B) Crouch M W F, 11; M W F, 2. <br> For general professional and Kindergarten-Primary students.

33. Elementary Dietetics. (3) Either semester. (Credit B) CHiton toul

Principles of diet applied to individuals, the family and other groups.

Prerequisite: Chemistry 10, Biology 10 to parallel or to prceede Home Economics 11b.
43. Houdehotd Administration. (2) AF A (Credit B) ALLEN
Hor vocational students.

Prerequisite: Chemistry 2A, Commerce 1A.
46. Home Economies Education. (4) II. (Credit B) -
conesination of 47 s and 47 s . Tor vocational students.
Prerequisite: Psychology 2.
1474. Development of Home Economics Education. (Credit B)

M W F, 12.
(3) Either semester.

Prerequisite: Psychology 2.
147b. Principles of Home Economics Teaching. (2) Either semester. (Credit B) Tu Th, 12.

Study of typical courses and their presentation.
Prerequisites: Home Economics 47a, Psychology 2 and Education 11 or 78.
159. Food Problems. (3) II. (Credit B)

Allen
Special problems in food with review of literature of the subject. Prerequisite: senior standing.
166. Millinery. (2) Either semester. (Credit B) Lathrop

Prerequisite: Art 6A and Home Economics is or equivalent.
169. Household Administration. (3) I. (Credit B)


Economic organization and administration of the activities of the home.

Prerequisite: Chemistry 2a, Physics 11, Commerce 1A, Food and Clothing-1 year each.
$\checkmark$ 170. Home and Community.
(3) I. (Credit B)

Home and family life as modified by present social and cilice demands.

Prerequisite: senior standing.
171. Demonstration-Food and Clothing.
(1) II. (Credit B) -8inirr Prerequisite: senior standing.
175. Advanced Dressmaking. (3) Either semester. (Credit B) Latrirop
Prerequisite: Home Economics 1B.
179. Clothing Problems. (3) Either semester. (Credit B) Lathrop Special problems in clothing with review of literature. Prerequisite: senior standing.
183. Experimental Cookery. (3) Dithex-sentester. (Credit B) Ai min Prerequisite: senior standing. Prerequisite: H\&me Economics 33, Chemistry 57.

## MATHEMATICS

-George E. F. Sherwood, M.A., Associate 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.

- Euphemia R. Worthington, Ph.D., Instructor in Mathematics.
-Paul H. Dads, Ph.D., Instructor in Mathematics.
-Frederick C. Leonard, Ph.D., Instructor in Astronomy.
- W. E. Mason, Instructor in Applied Mathematics.

Fees. -The fee required for Civil Engineering 1ra-1fs is $\$ 5$ per semester; for Civil Engineering 3 there is a minimum fee of $\mathbf{\$ 2 0}$.

## Preparation for after Major

Required: Mathematics 3A-3b, 4A-4b, 6, 8.
Recommended: Physics, Astronomy, French, German.
CA. Plane Trigonometry. (2) Either semester. (Credit A, B) Tu Th, 12.


Prerequisite: elementary algebra and geometry.
CB. Spherical Trigonometry and Computation
(2) Either semester,
(Credit A, B) Tu Th, 12.
Prerequisite: plane trigonometry and solid geometry.
G. Solid and Spherical Geometry, (2) I. (Credit A, B)


Tu Th, 10.
Prerequisite: plane geometry.
$\checkmark$ 1. Advanced Algebra. (3) Either semester. (Credit A, B) MW F, $\mathbf{9} \mathbf{~ ; ~ M ~ W ~ F , ~ 1 1 ; ~ M ~ W ~ F , ~} \mathbf{3}$.


For students who have had $11 / 2$ years of high school algebra.
ic. Advanced Algebra. (3) Either semester. (Credit A; B) M Tu W Th F, 9; M Tu W Th F, 11.


For students requiring more drill than Mathematics 1 affords.
2. Mathematics of Finance. (3) Either semester. (Credit A, B)
 M W F, 11.
Prerequisite: Mathematics 1 or lc.

30．Differential and Integral Calculus．（5）I．（Credit A，B）
Prerequisite：Mathematics Ba．
For students beginning calculus in the second year．
＊4A－4b．Solid Analytic Geometry and Integral Calculus．（3－3）Yr． （Credit A，B．）M W F， 8.

Days
Prerequisite：solid geometry and Mathematics 3B．
40．Solid Analytic Geometry and Integral Calculus．（4）II． （Credit A，B）

Prerequisite：solid geometry and Mathematics 30.


This course with Mathematics BC is the equivalent of Mathematics


6．Introduction 涢Projective Geometry．（3）II．（Credit A，B）James
8．College Algebra．${ }^{(3)}$ mither－semester．$工$ SHOWMAN
（Credit A，B）$M$ F，8．
For students in the College of Letters and Science．
15c．First Course in Mechanics．（4）IL．（Credit A，B）


Prerequisite：credit or registration in either Mathematics 4B or Lc．
$\gamma$ 17．Arithmetic for Teachers．（3）Either semester．（Credit B）
Collier，Glazier，Wortiongion

74．The Teaching of Junior High SChool Mathematics ．－（8） $\mathbf{I I}^{\mathbf{I I}}$ （Credit B）

102．Elementary Algebra for Advanced Students．（3）I． （Credit A，B）

WORTHINGTON

Prerequisite：Mathematics 3B or its equivalent．
Selected topics in elementary algebra with particular reference to modern points of view．
109．Calculus（Advanced Course）． （Credit A，B）
（B）Dither half－year．
Demure
＊For students requiring more drill than 17 ．
$\checkmark$ 1114. Theory of Algebraic Equations. (3) I. (Credit A, B) Stimbwood

## 111b. Higher Algebra. (3) II. (Oredit A, B) Shmewood <br> Prerequisite: Mathematics 1 and 3 B . <br> $\because$ Infinite series and products, continued fractions, theory of numbers. <br> 114a-114b. Advanced Analytic Geometry. .(3-3) Yr. (Oredit A, B)

Graztif
Prerequisite: Mathematics 3B and 6.
Introduction to modern methods in analytic geometry.
Tilq. Difforential Equations (3) (Credit $A$, $B$ ) Ift phommen

## civil engineerina



## ASTRONOMY

- 1. Elementary Astronomy. (3) Either semester. (Credit A, B)
Tu Th S, 9.
$\quad$ Prerequisite: elementary algebra and plane geometry.

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

Th, 1-4. Leonard
Prerequisite: solid geometry, Oivil Engineering 1ra, and credit or registration in Civil Engineering Irs.
5. History of Astronomy. (3) I. (Credit A, B) M W F, 8. Leonard
Prerequisite: Astronomy 1 .
11. Modern Astronomy. (3) II. (Credit A, B) Lleonard

Prerequisite: Astronomy 1.
The stars and nebulae. Progress in astronomy through modern methods, especially spectroscopic and photographic.
103a-103b. General Astronomy. (3-3) Yr. (Credit A, B) Leonard
Prerequisite: Mathematics 3A and Physics 2A-2b, 3A-3b, or their equivalent.

The general facts and principles onderlying the science of astronomy in all its branches, developed and discussed in detail.

## MEOHANLO ARTS

-Harold William Mansfield, Assistant Professor of Mechanic Arts.
-JoHn B. Phillips, Associate in Mechanic Arts.
-James Willard Marsi, Associate in Mechanic Arts.

- Foss R. Brockway, Associate in Mechanic Arts.
- Adrian B. Kellait, Associate in Mechanic Arts.
- Charles F. Paxton, Associate in Mechanic Arte.

Laboratory Fees.-The deposit required for Mechanical Engineering 7, 8a, 8в, 9A, 9B; Mechanic Arts 10A, 10b, 24A, 24b, 151A, 151b, 60A, 61, 162A, $162 \mathrm{~B}, 75 \mathrm{~A}, 75 \mathrm{~B}$ is $\$ 3$.

## ENGINEERING DRAWING



## MECHANICAL ENGINEERING

$\gamma_{1 .}$ Elements of Heat, Power, Engineering.
(3) (Credit A).
Paxton
M W F 11.
2. Descriptive Geometry. (3) Either semester. (Credit A, B)
Lectures, Th, 12; Drawing, Tu Th, 2, 3, 4. Paxton, Mmamanabere
6. Machine Design. (5) Either semester. (Credit A, B)

Mansmando Paxton
Lectures, M W F, 10; Laboratory, W, 2, 3, 4; S, 9, 10, 11.
Principles of mechanism and elements of machine drawing.
$\checkmark$ 7. Automotive Construction. (2) Either semester. (Credit A, B)
$\checkmark$ 8A-8b. Shop Work. (2-2) ㅍ․ (Credit A, B) Senarsh, Brockway Lectures, M, 3, and 6 hours laboratory. Pattern making and foundry practice.

## mechanic arts

10a-10b. Shop Work. (3-3) 站贷(Gredit B) Kallik Bench work in wood.
 Pattern making and molding.
GOA-60.. Shop Work. (3-3) $\mathrm{F}_{2}$ (Credit B)
Foundty practice.
61. Ghop Whork. (3) Bitirer sameater. (Gredit B) Pimbips
/75A-75s. Shop Work. (3-3) Yr. (Credit B) Philups Elementary machine shop practice. .
150a-150b. Applied Electricity. (3-3) Yr. (Credit B) Marsi
$\checkmark$ 151A-Sthe_Applied Electricity. (3-3) Yr. (Credit B) Massh
Storage battery and bench work.
 153. Machine Drawing. (3) Either semeatgr. (Credit B) Mansfield 154. Arcittectreat Drawing-(3) I (Credit B) PAXFN, Masicpitid -162a-162b. Auto Mechanics. (3-3) Yr. (Credit B) Marsh, Bnowawhe

165A-165b. Home and Community Mechanics. (3-3) Yr. (Credit B) Manspirid, Brocysmetmanah
100. Organization and Administration of Industrial Education. (2) I. Mansfipid and Staff

# MTIITARY SOIENOE AND TAOYIOS 

- Guy G. Palmer, Colonel, U. S. Army, Retired, Professor of Military Science and Tactics.
-John E. Cried, Major, U. S. A., Assistant Professor of Military Science and Tactics.
- Leigh Bell, 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 Tacties.

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 jear 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 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.

Students who complete the advanced course are also eligible for a commission by the Governor of the State of California in the Univeraity Cadets.

The courses are divided into two groups: the basic course and the advanced course.

[^27]
## Basic Course

The basic course is prescribed for all first-year and second-year undergraduate male students who are citirens of the United States, able-bodied and under twenty-four years of age at the time of admission to the University. A first-year or second-year student claiming exemption because of non-citizenship, physical disability or age will present to the Department of Military Science and Tactics a petition on the prescribed form for such exemption. Pending action on his petition the student will enroll in and enter the course prescribed for his year.

Students who have received two years' previous military training in a junior unit of the R. O.T. C., and who have not qualified for commissions in the Officers' Reserve Corps may receive credit therefor not to exceed the first year's instruction of the basic course. Application for this credit must be made when registering and must be accompanied by a recommendation from the Professor of Military Science and Tactics at the sehool 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 credit may not be made the basis for exemption from taking the two years' work in Military Science and Tactics.

1s-1b. Basic Infantry Training. ( $1 \frac{1}{2}-1 \frac{1}{2}$ ) Yr. (Credit A, B)
Palmmr, Creed, Bell, Stari
M W F, 1; Tu Th, 12; W, 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. (12 $1 \frac{1}{2}$ ) $\mathbf{Y r}$. (Credit A, B)
Palmer, Cremd, Bell, Staric
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 fourthyear 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. $\qquad$
$\qquad$ (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 privatos of the Regular Army.

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 ${ }_{\mathbf{B}}$ ) Palmrr, Criemd, Bell, Staris
Instruction and practice in the duties of offlcers in connection with basic courses; instruction in field engineering, military sketching, tactics, command and leadership, machine guns, $\mathbf{3 7} \mathrm{mm}$. guns and light mortars.

104A-104b. Advanced Infantry Training. (3-3) Yr. (Oredit, ${ }^{\text {A }}$ B)
Palmer, Creed, Bell, Staris
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. O 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

- Squirz Coop, Lecturer in Music.
-Francls Wrigetr, Associate Professor of Public School Music.
-Y Virnon Spenger, Assistant Professor of Music.
-William J. Kbaft, Mus.Bac., F.A.G.O., Lecturer in Musie.
-Brertia C. Vadohn, Teacher in Voice.
Applicants for any music credential must show evidence of musical talent, including ability to read music equivalent in difficulty to the first three books of the State text series. Ability to play piano music of advanced grade is a prerequisite to the work of the junior year.


## Priparation for the Major

Required: Music 4A-4B (6), 155A-155B (4), 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) M F, 3; Tu Th, 12. <br> All students who sing are eligible. | Coor |
| :---: | :---: |
| 2A-2B. Orehestral Practice. (1-1) Yr. (Oredit A, B) W F, 12; Tu Th, 3. <br> All students who play any orehestral instrument | COOP <br> ible. |
| 3A-3b. Music History. (2-2) Yr. (Credit A, B) Tu Th, I A general survey of the development of music. <br> 4A-4B. Introductory Harmony. (2-2) Yr. (Oredit A, B) Tu Th, 11; Tu Th, 2. | Krampt Krajt |
|  <br> 74-7b. Voice. (1-1) Yr. (Gredit A, B) Tu Th, 9. Tone production repertoire. | vaife |
| 8a-8b. Voice. (1-1) Yr. (Credit A, B) Vocal ensemble (musicianship). Prerequisite: Music 7a-7b. | Vadghe |
| 9A-0B. Melodic Dictation. (2-2) Yr. (Credit A, B) M W F, 11. <br> Tone thinking. | Krapt. |
| $\frac{1}{2}$ First sem man |  |

*14 A -148. Counterpoint: (3-3) Yr. (Credit A, B)
 60. Teachers' Course in Music.
(2) Either semester.

Wright (Credit B) $\mathrm{M} \mathbf{W}, 3$.
$\checkmark$ 61. Kindergarten-Primary Music. $\stackrel{\sim}{2}_{\sim}^{2}$ Either semester. (Credit B) M $\boldsymbol{F}, 1$.

Wbiatt
$\checkmark_{102 A-102}$ Piano Ensemble. (1*) $I_{\text {(Credit A, B) }}$
105A-105B. Composition. '(2-2) Yr. (Credit A, B)

109. Conducting. (1) II. (Credit A, B)
cor Spec

111a-111b. History of Music. (3-3) Yr. (Credit A, B) Prerequisite: Musca $51=58$.

114. Instrumentation. (1) I. (Credit B)

133A-133B. Form and Analysis. (2-2) Yr. (Credit A, B) Spenokr alchim Harmonic and structural analysis of musical forms.

155A-1558. Advanced Harmony. (2-2) Yr. (Credit A, B) Spricirs alchin

185s-185s. Piano Methods. (2-2) Yr. (Credit B)
SPANCDN


[^28]
## PHILOSOPHY AND PEYOHOLOGY

-Charles H. Rreber, Ph.D., Professor of Philosophy.
-Grace M. Frernald, Ph.D., Associate Professor of Psychology.

- Kate Gordon, Ph.D., Associate Professor of Psychology.
-S. Carolyn Fisher, Ph.D., Assistant Professor of Psychology.
-Donald S. Magkay, A.B., Instructor in Philosophy.
- Nellife B. Sullivan, A.B., Instructor in Psychology.
-Cliffohd L. Barrett, A.B., M.A., Instructor in Philosophy.


## Preparation for the Major

Philosophy.-Twelve units chosen from courses 1A-1B, 3A-3B, 4A-4B. Psychology.-Required: Psychology 2, Philosophy 1A-1b, and either Physiology 1 and 2 or Zoology 1a-1b.

Recommended: French, German, Chemistry.

## PHILOSOPHY

1. Logic. (3) Either semester. (Credit A, B) M W F, 11.

Rimber, Barrety
Deductive logic. Division, definition, the forms and transformations of judgments, the syllogism.

1b. Logic. (3) Either somester. (Credit A, B) Riebirr, Barrett Inductive logic. The presuppositions and methods of inductive sciences.

Prerequisite: Philosophy 1A.
3a-3b. History of Philosophy. (3-3) Yr. (Credit A, B) Mackay M W Fi, 2.

4A-4B. Introduction to Philosophy. (3-3) Yr. (Oredit A, B)
Mackay M W F, 11.

## Upperi Division Courses

General Prerequisite.-Students enrolling in any upper division course must have completed six hours of work in the lower division courses, $1 \mathrm{~A}-1 \mathrm{~B}, 3 \mathrm{~A}-3 \mathrm{~B}, 4 \mathrm{~A}-4 \mathrm{~B}$.
$\checkmark$ 103a-103b. Philosophy of the Nineteenth Century. (3-3) Yr.
(Credit A, B)
Barrett
A study of the general ideas characteristic of the intellectual achievements of the century such as German idealism, French positivism, English ntilitarianism, and theories of evolution.

104A-104B, Ethics. (3-3) $\mathrm{Y}_{\mathrm{r}}$ (Oredit A, B)
112 Philos. of Religion (3) (Credit A, B) II 116. Plato. (3) II. (Oredit A, B)

ح, 21A Sacialo Flíticil Philot. (3) Crodit A, B) It
$\checkmark 136 a-136 \mathrm{~b}$. Esthetics. (3-8) Yr. (Oredit A, B)
Tu Th S, 10; Tu Th S, 11.
146. Literary Expressions of Philosophical Problems. (3) I. (Credit A, B) Prerequisite: course 3a-3b.

PSYCHOLOGY
X. The Psychology of Study. (1) Either semester. (Credit A, B) Tu, 8; Th, 8 .
*/2. Gencral Psychology. (3) Either semester. Tu Th S, 8; Tu Th \$, $\mathbf{1 0}$.
30. Educational Psychology. (3) I. (Credit B)

MW F, 10; M W F, 12.
83. Advanced Psychology.
(3) Either I

(Oredit A, B)
TheDTAFT
7r-b Tu Th S, 11.

Fismer, Sculiman
106. Introduction to Psychological Experiment.
(3) Either semester. (Oredit A, B)
107. Mental Tests and Measurements. (3) Either semester. (Credit A, B)

Furnald
132. Psychology of Elementary School Subjects.
(3) II. (Credit B)

Fernald
140A, Prycholdgical Experimont:-A avanced.
(1) Either semester.
(Credit A, B)
Houts to be arranged with instructor.
Prerequisite: Psychology 106.
143A-143b. Clinical Psychology. (3-3) Yr. (Oredit A, B)
Fernald

"2 $\left\{\begin{array}{l}\text { duphereated by } 2 A(1924-25) \\ 10\end{array}\right.$

## PHYSIOAL EDUOATION FOR MEN

-Frederick W. Cozens, M.A., Assistant Professor of Physical Education. -Albert W. Dowden, A.B., Associate in Physical Education.
-Jamess J. Cliné, A.B., Associate in Physical Education.
Harry Trottger, Assistant in Physical Education.
Paul Frampton, Assistant in Physical Education.

- Wiblum J. Norris, M.D., Physician for Men.
-E. R. Warr, 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.

Physical Tests.-Male students in the College of Letters and Science taking required physical education must pass a series of practical physical tests (see announcement on bulletin board in the Men's Gymnasium). 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 qualified for the athletic division may 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. 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).

Majors in the Teachers College.-Men whose major is physical education should consult the suggested schedules for Physical Education under the heading Curricula-The Teaehers College in this announcement.

Notiees 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．Norris $\times 1$ A－B－o－d．Gymnastics．（ $\frac{1}{2}$ ）Either semester．（Credit A，B）Frampion At of
（ 2X－G Special Gymnastics．（ $\frac{1}{2}$ ）Either semester．（Credit A，B） Corrective gymnastics．

Dowden X 3X－b－C－D＇．Track．（立）Either semester．（Credit A，B）Cozens，Trotters F 4is－D．Baseball．（立）II．（Credit A，B）Cozens Open to men enrolled on the varsity or freshman squads．

F 5A－s－CD．Basket－bail．（ $\frac{1}{2}$ ）Either semester．（Credit A，B）Dowdier 6 Men must have passed physical tests in order to enroll in this work． Tennis（ $/ 2$ ）（Credit A，B）
（ $\frac{1}{2}$ ）Either semester．（Credit A，B）
All men enrolled in tennis must pass the tests of the department．
 X 8X－6－exf．＇Wrestling．（ $\frac{1}{2}$ ）Either semester．（Credit A，B）Curse X．10X－B－C－D．Swimming．（1）Either semester．（Credit A，B）Downer $X_{13 A-c . ~ A m e r i c a n ~ F o o t b a l l . ~\left(\frac{1}{2}\right) ~ I . ~(C r e d i t ~ A, ~ B) ~}^{\text {A }}$ Cline，Cozens，Dowden，Trotter Open to men enrolled on the varsity or freshman squads．
15 － P － $\mathrm{C}-\mathrm{d}$ ．Handball． （1）Bit her semester．Credit A，B） Cozens it curnaments under supervision．Classes limited to 16 men ． Practice in Athletic Activities．（1－1）Yr．（Credit B）Cozens fired of physical education majors in their first and second （1 ）－b－c－d．Practice in Athletic Activities．（1－1）Yr．（Credit B）Cozens－ Required of physical education majors in their third and fourth years of work．
70．Theories of Play，School and Playground Games．（2）II．Cozens （Credit B）
155A－155B MEthods and Practice in Teaching Gymnasium Activities and
 Prerequisite：1A，7A，8A．
$\chi_{156 A-156 \mathrm{~B}}$ Methods and practice in Coaching Athletics．（2－2）Yr． （Credit B）

Cozens，Dowden
Prerequisite：3A，4A，5A，13A，30AB．
＊Not to be given，1923－24．
Mtg Kinesiengy（2）I


## PHYSICAL EDUCATION FOR WOMEN

- Ruth V. Atkinson, B.S., Director of Physical Education for Women.
- Lucile R. Grunewald; B.S., Associate in Physical Education.
-Dorothy S. Gibling; A.B., Associate in Physical Education.
- Bertha Hall, Associate in Physical Education.
- Emily D. Jameson, A.B., Associate in Physical Education.
- Belle H. Barry, B.S., Associate in Physical Education.
-Cora E. Eokerr, A.B., M.A., Associate in Physical Education.
- Edith Harshbergar, A.B., Associate in Physical Education.
- Marion Shepard, A.B., Associate in Physical Education.
- Effie Shambadge, Associate in Physical Education.
- Florence E. Sutton, Associate in Physical Education.
- Ina Thane, Associate in Physical Education.
- Katherine Close, M.D., Lecturer in Hygiene.
- Lillian Ray Titcomb, M.D., Physician for Women. Ruby I. Mokmang R.N., Nurse.
$X$

2. Hygiene: ${ }_{(2)}^{(2)}$ Either semester. (Credit A, B) MF, 1. Trrcom 65. First Aid (1) (credit B) II $X_{10}$. Physical Education. (2) Either semester. (Credit B) * 10 C Dancing (ForArtotudents) (2)(Credit B) IL K 11. Physical Education.
(2) Either semester. (Credit B) Jameson, Shepard,
12a-12b. Physical Education. (2-2) (
${ }_{.} \mathrm{HAL}^{\mathrm{I}}$


62A-62B. Rhythmic Dancing. (1-1) Yese (Credit B) M W Fir 3 ; M, 4 .
65A-65B. Gymnastics. ( $\left.\frac{1}{2}-\frac{1}{2}\right)^{\frac{1}{4}}$ (Credit A, B)
Harshberaer
2650 Gymnomstics ( $f_{2}$ ) (Cradit B) $Y_{1}$ —...
F70a-70b. Plays and Games. ( $\frac{1}{2}-\frac{1}{2}$ ) Yr. (Credit B) Grunewald, Hall
I. Tu Th, 10. II. Tu Th, 1.

K7oc Athletio Games $(1 / 2)$ (Credit B) $I I$
71A-B-O-D. Athletics. (享) Either semester. (Credit B)

75. Tennis. (h) Either semester. (Credit A, B)

Sutton, Eckert, Shambauge, ghmpabo-
7e. Swimming. (1) Either semesier. (Credit A, $\mathbf{P}$ )
-, Ghema, Eckert, AHimbati, Shambaugh
405. Fitst Aiz. (X) II. (Crodit A, B) M-P, 1. Momemem
(121. Special Methods. (2) I. (Credit B) Tu Th F, 11. Harshberaer
6149. Kinesiology. (2) I. (Credit B) Tu Th, 8.

Jameson
70 (wpeman)(2) II
 Prerequisite: Zoology 1A, Chemistry 2b.

192A-192B. Normal Diagnosis. (3-3) $\mathbf{Y r}$. (Credit B) Clo䍀 M W F; 10.
Prerequisite: Physical Education 190A-190b.

## PHYsIOs

- John Mead adams, Ph.D., Associate Professor of Physics.
- Laurencr Ellsworth Dodd, Ph.D., Assistant Professor of Physics.
-Hiram.W. Edwards, Ph.D., Assistant Professor of Physics.
-Vrarf O. Knudsen, Ph.D., Assistant Professor of Physics.
-J. W. Elurs, Ph.D., Instructor in Physics.
-"Arthur H. Warner, A.B., B.S., Associate in Physics.
-Fred L. Pooile, B.S., Associate in Physics.
Leo P. Delsasso, Assistant in Physics.
John D. Eldme, Assistant in Physies.
Howard F. Christenson, Assistant in Physics.
Laboratory Deposits and Fees.-The deposit for laboratory courses $1 \Delta-1 \mathrm{~B}, 3 \mathrm{~A}-3 \mathrm{~B}, 4 \mathrm{~A}-4 \mathrm{~B}, 11$, is at the rate of $\$ 5$ per half-year for each laboratory exercise a week; for courses 3c-3D, \$10. The fees are: for $1 \mathrm{~A}-\mathrm{Ib}_{\mathrm{r}}$ 3A-38, 4A-4B, \$4 per half-year; for 3c-3D, \$8 per half-year; and for other laboratory courses $\$ 3$ per half-year.


## Priparation for ther Major

Required: Physics $1 \mathrm{~A}-1 \mathrm{~B}, 4 \mathrm{~A}-4 \mathrm{~B}$, or $2 \mathrm{~A}-2 \mathrm{~B}, 3 \mathrm{C}-3 \mathrm{D}$; Mathematics C, 34-3B; Chemistry 14-1b.

Recommended: French or German.
Prerequisite for all lower division courses: either (1) the high sehool course in physics, or (2) three years of high school mathematies, including trigonometry, and the high school course in chemistry.

1a-1b. General Physies. (3-3) Yr. (Credit A) Adams and Stafr Lectures, Tu Th, 11; Tu Th, 1. 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) Edwards, Elder Lectures, M W, 11; quiz; 1 hour. Mechanics, sound, heat, light, electricity. For premedical students, open to other students who are taking Physics 3a-3b.

[^29]3A-3b. Physical Measurements. (1-1) Yr. (Credit A, B)
Edwards, Elder
For premedical students, open to other students who are taking Physics 2a-2b.

30-3D. Phypical Measurements. (2-2) Yr. (Gredit A)
For sthdents majorfng in physics.
/4A-4B. General Physics. (3-3) Yr. (Credit A) Adams, Dodd,
Lectures, Tu Th, 8; laboratory, 3 hours.
Electricity and light. For students in engineering.
Prerequisite: Physics 1d-1b.
5. Electrodynamics. (3) II. (Credit A) Knudsen

Preparatory to courses in electrical engineering.
Prerequisite: Physics 4a, Mathematics 4A.
11. General Physics. (3) I. (Credit B)

Dodd
Mechanics, sound, heat, light, electricity, with special attention to applications of physics in the household. Intended primarily for students in home economics.
12. The Physical Basis of Music. (2) II. (Credit A, B)

Dodd
Lectures and experimental demonstrations.
105a-105b. Analytic Mechanics. (3-3) Yr. (Oredit A) Edwards celen
Prerequisite: a course in phyaics, and a course in the differential and integral calculus. The statics and the dynamics of particles and rigid bodies.

108A. Physical Optics. (2) I. (Credit A)
DODD
Prerequisite: Course 2A-2b or Course 4B, and a course in the differential and integral calculus. Lectures and reading on selected topics in light.

110a-110b. Electrieity. (2-2) Yr. (Credit A) Kxudsín
Prerequisite: Physics 2a-2b or 4A, and a course in the differential and integral calculus. Elementary mathematical theory of electricity and magnetism.
111. Modern Physics: methods, results, and interpretations.
(2) II. (Credit A, B) Adams
Prerequisite: a course in general physics, and a course in the differential and integral calculus, A general view of the progress of physics in the last twenty-five years. Lectures and reading.

## POLITICAL SOIENTOE

-Charles E. Martin, Ph.D., Associate Professor of Government.

- Whliam H. Grorar, Ph.D., Instructor in Government.
- Claringee A. Dyistra, A.B., Leeturer in Government.
- Marshall Francis McComb, A.B., LL.B., Leeturer in Law.


## Prrparation for the Major

Students who desire to make political science their major subject in the upper division must take courses 1A, 18, and either Economics 1a-18 or History 4A-4b.

## The Major

Candidates for the bachelor's degree at Berkeley with political science as a major must offer at least 24 units in upper division courses, not more than 6 of which may be taken in some other department.

Instruction in the department falls into four main groups: I. Political Theory; II. International Relations; III. National Government; IV. Municipal and Local Government. Programmes at Berkeley must include 9 units in one of the main groups and at least 3 in each of the others. Courses in political theory and American government are required. The 24 major units should be evenly distributed through the junior and senior years.

Jurisprudence forms a separate section under the Political Science Department.

1A-1b. Government. (3-3) Yr. (Credit A, B) M W F, 10.
Martin, George
This course satisfies the State requirement for instraction in the Constitution of the United States.

## Group 1.-Political Theory

11. The Principles and Problems of Polities. (3) I. (Credit A, B) Grorge
12. The Problems of Democraey. (3) II. (Credit A, B) Grorai

112a-112s. Evolution of Government and Politieal Ideas. (3-3) Yr. (Credit A, B)

Grorge

## Group 11.-International Relations

25A-25s. Foreign Relations of the United States. (3-3) Yr. (Credit A, B) MW F, 11.

Martin
27. Th Goveramernaf Dependencies. (3) I_(Oradit_A, B) Martin

## Group 1II. -National Government

50. American Government. (3) Either semester. (Credit A, B)
Tu Th S, 9.
DyEstra
Required of students in the Teachers College.

Prerequisite: Political Science 1a-1b.

156. Principles of Public Administration. (2) If(Credit A, B) Mam en of bad

158a-158s. Latin-American Governments and Political Institutions. (2),
Yr. (Credit A, B) . Locker
Group IV.-Municipal and Local Government
 $\checkmark$ 162. The Government of Cities. (2) I. (Credit A, B) Dyxstra

## JURISPRUDENCE



38x-384. Advanced Commercial Law. (2-2) Yr. (Credi tiA, B)

$=53+101$ arete pare comers but rumblenced

## bomanto manguages

-Henry Raymond Brusi, Ph:D., Professor of Romance Language.
-S. L. Miclard Rosenberg, Ph.D., Assistant Professor of Spanish.

- Aurxindier Gries Fite, Ph.D., Assistant Professor of French.
-Nemours Honort Clrmirnt, Ph.D., Assistant Professor of Romance Languages.
- Maria Lopez deLowther, M.A., Lecturer in Spanish.
-Frmprbici E. Beckman, Ph.D., Associate in Romance Languages.
- Madileine M. L. Letessier, A.B., Associate in French.
-Evelyn Lesslim Loughead, A.M., Associate in French and Spanish.
-Aucr Hubard, Asbociate in French and Spanish.
-A. G. W. Cerrf, M.A., Litt.D., Honorary Lecturer in French.
- adolpo Jordí, Lic. en Fil. y Letras, Instructor in Spanish.


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

## The Major

The requirements for the major at Berkeley are French 101a-101s, 109a-109в, 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, Spanish, Italian, Latin or Philosophy.

## Assignmant to 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.
A. Elementary French. (5) Either semester. (Credit A, B) The Stafr M Tu F Th F, 8; M Tu W Th F, 10; M Tu W Th F, 12; M Tu W Th $\mathrm{F}_{\mathrm{z}} 3$.
B. Elementary French. (5) Either semester. (Credit A, B) The Starr M Tu W Th F, 8; M Tu W Th F, 10; M Tu W Th F, 12; M Tu W Th F, 3.

Prerequisite: Course A or one year of high school French.
/C. Intermediate French. (3) Either semester. (Credit A, B)
 Tu Th S, 9 ; M W F, 2. Clement in Charge Prerequisite: Course B or two years of high school French.
$\checkmark$ D. Intermediate French. (3) Either semester. (Credit A, B) Tu Th S, 9; Tu Th S, 11; MW F, 2. Clement in Charge Prerequisite: Course $\mathbf{C}$ or three years of high school French.
$\sqrt{14-1 b}$. Intermediate French. (3-3) Yr. (Credit A, B) Fire
Prerequisite: Course B with grade A or B. 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) -BNentis Letesisier Thorough review of the essentials of grammar; composition and reading of modern French authors.

Prerequisite: Course D or 1B, or four years of high school French.
$\checkmark_{\text {6a-6B. Scientific and Technical French. (2-2) Yr. (Credit A, B) }}$

(101A-101b. Composition, Oral and Written. (3-3) Yr. (Credit A, B)
Clement.
, Prerequisite: Courses 1a-1B or C and D with grade of $\mathbf{A}$ or B; otherwise 5A-5b.

107a-107b. Typical Comedies as Documents of Spoken French. (2-2) Yr. (Credit A, B) Wite

Prerequisite: an average grade in French courses higher than $\mathbf{O}$.
$\sqrt{109}$ A-109i. A Survey of French Literature and Culture. (3-3). Yr. (Credit A, B)

Brush
From the seventeenth century to the present time.
$\sqrt{112 A-112 b . ~ T h e ~ N i n e t e e n t h ~ C e n t u r y . ~(2-2) ~ Y r . ~(C r e d i t ~ A, ~ B) ~ B r u s h ~}$
A. From Chateaubriand to Balzac; B. From Balzac to Anatole France.
$\sqrt{ } 190$. Course for Teachers. (2) Either semester. (Credit B) Brush, man em
Prerequisite: 16 units of freshman and sophomore work, or equivalent, and French 101a-101b.

## SPANISH

## Priparation 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 $1 \mathrm{a}-1 \mathrm{l}$ or an equivalent.

The prerequisites for the various lower division courses are listed under these courses. Students whose record in high school seems to warrant it 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

The required courses at Berkeley are 101a-101b, 106a-106b, and 107a107b. The remaining 8 units may include not less than 6 units of apper division work in either French, Italian or Latin or may be made up from any two of the following year-courses: Spanish 103, 104, 105, and 110.

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.
A. Elementary Spanish
(5) Either semester. (Credit A, B)
Rosenberg in Charge

M Tu W Th F, $\mathbf{9}$; M Tu W Th F, 10; M Tu W Th F, 11; M Tu W Th F, 2.

The equivalent of the high school course in elementary Spanish. Students who complete A after having one year of Spanish in high school will receive two units in addition to their matriculation credit.
B. Elementary Spanish. (5) Either semester. (Credit A, B)

Rosenberg in Charge
 W Th F, 2.

Prerequisite: Course A or two years of high school Spanish. The equivglent of the high school course in intermediate Spanish.
C. Intermediate Spanish. (3) Either semester. (Credit A, B)
Tu Th S, 10; M W F, 3 . Rosenberg in Charge
Prerequisite: Course B or three years of high school Spanish, or the equivalent. The equivalent of the high school course in advanced Spanish.
$\qquad$
D. Intermediate Spanish.
(3) Either semester. (Credit A, B)
Tu Th S, 10; MW F, 3.
Rosenberg in Charge.

25a-25b. Commercial Spanish. (3-3) Yr. (Credit A) Beckman
For students in the Department of Commerce only.
Prerequisite: Courses $\mathbf{A}$ and $\mathbf{B}$ or their equivalents.
504-50B. Conversation and Composition. (3-3) Yr. (Credit A; B) Freda मowTHER
For lower division students only who have had $O-D$ or four years of high school Spanish. Designed especially for Spanish majors. Grade A, B, C, or equivalent in previous language work.

53a-53b. Advanced Spanish. (3-3) Yr. (Credit A, B) Rosenberg
Prerequisite: Course D or four years of high school Spanish or an equivalent. Advanced reading in modern Spanish; conversation and composition associated with reading.

101a-101b. Advanced Conversation and Composition. (3-3) Yr. (Credit A, B) Lowther

Prerequisite: the equivalent of 16 lower division units. A required course for the major.

104a-104b. Spanish-American Literature. (3-3) Yr. (Credit A; B)
Lowtike
Prerequisite: the equivalent of courses C, D, or four years of high school Spanish or an examination. A study of the principal authors of Hispano-America. Lectures and reading.

105a-105b. Modern Drama (2-2) Yr. (Credit A, B) Rosenberg
A study of the plays of Echegaray, Perez Galdos, Benavente, los Quinteros, Martinez Sierra, etc. Prerequisite: the same as for 104a-104b.
190. Course for Teachers. (2) Either semester. (Credit B)

Rosinamera, Lowtieke
Prerequisite: Spanish 51A-51b, 53a-53b.
SOAB +53AB are not duplicate courses. V. Courses.:orfice Rules - Procedure. 2-H-25.
$60 A B$ dupaisoten $5 A B(1922-23)$

## TRATNING DEPARTMENT

## Staft in Southern Branch Traning School

Charles Wlukin Waddle, Ph.D., Professor of Education and Director of the Training Schools.
Thomas E. Thompson, A.B., Assistant Supervisor of Training and VicePrincipal of the Junior High School.
Ether I. Sausbury, M.A., Assistant Supervisor of Training and Associate Profesor of Elementary Education.
Frances Giddings, A.B., Supervisor of Training.
Bertha E. Wells, Assistant Supervisor of Training.
Katherine Spirrs, M.A., Assistant Supervisor of Training.
Alma Barnity Sawyer, M.A., Assistant Supervisor of Training.
Madeline Crowell, B.S., Training Teacher in Home Economics.
Margaret M. Campbell, M.A., Training Teacher in Mathematics.
Katererine Kahley, A.B., Training Teacher in Social Sciences.
Mabri C. Jacesson, M.A., Training Teacher in English.
-_ Training Teacher of Mechanic Arts.
Eman J. Robinson, Training Teacher, Sixth Grade.
Heien F. Bouton, Ed.B., Training Teacher, Fifth Grade.
Corrine A. Seeds, B.S., Training Teacher, Fourth Grade.
Edith Hope Ringrr, Training Teacher, Third Grade.
Edith Wallop Swarts, Training Teacher, Second Grade.
Ether Britto, A.B., Training Teacher, First Grade.
Vivinn Etans, Training Teacher, First Grade.
Barbara Greknwood, Training Teacher, Kindergarten.
Elsie Rambo, Assistant, Kindergarten.
Luli M. Stedman, Training Teacher Opportunity Rooms.
*Helen B. Keller, Training Teacher, Adjustment Room.
Eluzabeti Bruene, School Counselor.
Blander Kells, Training Teacher in Physical Education.
Wilbur C. Johns, Assistant in Physical Education.
Aulge Hubard, Training Teacher in Spanish.
Janet Frekze, Librarian.

> *On leave.
> $\because$

## Staff in City Trainina Schools

Charles Wilkin Waddle, Ph.D., Professor of Education and Director of the Training Schools.
Bertif E. Wells, Assistant Supervisor of Training.
Katherine Spiers, M.A., Assistant Supervisor of Training.
Myrtle B. Geandler, 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, Le Conte Junior High School.
Nino Brown, Training Teacher, Eighth Grade, Lockwood.
Serena P. Christensen, Training Teacher, Seventh Grade, Lockwood.
Ruth M. Badar, Training Teacher, Sixth Grade, Dayton Heights.
————, Training Teacher, Sixth Grade, Lockwood.
————, Training Teacher, Fifth Grade, Dayton Heighte.
Lavirna Lossing, Training Teacher, Fifth Grade, Lockwood.
Aucr M. Gremr, Training Teacher, Fourth Grade, Dayton Heights. Glertruder Maloney, Training Teacher, Fourth Grade, Lockwood. Grace M. Tinglex, Training Teacher, Third Grade, Dayton Heights. Lura Sawyir Oak, Training Teacher, Third Grade, Lockwood. Elukn Toy, Training Teacher, Third Grade, Dayton Heights. Inga Martinson Lacy, Training Teacher, Second Grade, Lockwood. Hazel Glover, Training Teacher, Second Grade, Dayton Heights. Jessica M. Parks, Training Teacher, Second Grade, Lockwood. Margaret Rose Carnes, Training Teacher, First Grade, Dayton Heights. Bess Holdzкom, Training Teacher, First Grade, Lockwood.
S. Edna Willinus, Training Teacher, First Grade, Dayton Heights. Eluzabeth Whitcomb, Training Teacher, Kindergarten, Lockwood. Estrile Royke, Training Teacher, Kindergarten, Dayton Heighte.
Jeannerts Freman, Training Teacher, Primary Adjustment Room, Dayton Heights.
Edna Lee Roor, B.L., Training Teacher, Physical Education, Lockwood and Dayton Heights.
Helen Linkrns, Training Teacher, Home Economics, Lockwood and Dayton Heights.
Mary Frances Houlins, Training Teacher, Home Economics, LeConte Junior High.
Nellie Josephine Suttirb, A.B., Training Teacher, Home Economics, LeConte Junior High.
Susir K. Sandirson, Training Teacher, Non-English, First Grade, Bridge Street.

## THE TRAINING SCHOOL

Practice teaching is provided for all Teachers College students in either: (1) The University Training School, comprising a kindergarten, the elementary and junior high sehool 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.

## TrAinting Courses*

K190A. Kindergarten-Primary Teaching. ..... (5)
$\checkmark$ K190B. Kindergarten-Primary Teaching. ..... (5)
$\checkmark$ 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)
A190s. Elementary Art Teaching. ..... (3)
A191a. Junior High School Art Teaching. ..... (4)
A191b. Junior High School Teaching.A192. Secondary Art Teaching. (4)0192a. Secondary Commerce Teaching. (5)(5)
C192b. Secondary Commerce Teaching. ..... (5)

[^30]H1904. Elementary Home Economics Teaching. ..... (2)
H190b. Elementary Home Economics Teaching. ..... (2)
H191A. Junior High School Home Economics Teaching. ..... (2)
H192a. Secondary Home Economics Teaching. ..... (2)
H1928. Secondary Home Economics Teaching. ..... (2)
MA192A. Secondary Mechanic Arts Teaching. ..... (5)
MA192b. Secondary Mechanic Arts Teaching. ..... (5)
M1904. Elementary Music Teaching. ..... (3)
M190b. Elementary Music Teaching. ..... (2)
${ }^{\circ}$ M191. Junior High School Music Teaching. ..... (1)
M192. Secondary Music Teaching. ..... (4)
$\checkmark$ P190A. Elementary Physical Education Teaching. ..... (2)
P1908. Elementary Physieal Education Teaching. ..... (3)
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$\checkmark$ P192b. Secondary Physical Education Teaching. ..... (2)
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Eleotive Teaohing/ When elective teaching is taken it is to be designated as Teaching 195.

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Koulown perpty to the proper Dean or Registrar:
प) Al Ar the the Miadided Scheol, the College of Dentistry, and the Oalifornia Coln Tege of Pharmacy, in San Francisco; the Los Angele Medicial Drepartmemt, in Lios Angeler.
For the tollowing, apply to the Dean of the College of Agrioulture, Berkeley, California:

The Pipoppectus of the College of Agriculture.
The ininoundement of Courses in Forestry.
The Annual Announcement of Farmers' Short Courses.
The Annual Report of the College of Agricalture and the Agrioultural Experiment Station.
The Bulletins and Circulars of the Agricultural Experiment Station.
A circular Containing detailed information concerning the scientific publications of the University, with prices, will be sent on application to thie Manager of the University of California Press. The separate, numbers of the several series appear at irregular intervals, making, however, oniform volumes.



[^0]:    * The President of the Board of Reventa and the Preaident of the University are ax officio membars of all committees of the Board. In each committee the name of the ohairman is firat and the name of the vice-chairman is second.

[^1]:    * Absent on leave.

[^2]:    * Absent on leave, 1928-24.

[^3]:    * A standard secondary unit is the measure of a subject pursued throughont the school year of from thirty-six to forty weeks and constituting approximately one-quarter of a full gear's work.
    $\dagger$ If, however, candidate has completed all of his high school work in aceredited institutions, and if the principals of these several schoals 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.

[^4]:    * These are held at Berkeley only.

[^5]:    * No examination.
    $\dagger$ The dagger indicates subjecta 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.

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

[^6]:    *These curricula are outined to cover the requirements in all the colleges of the University of Oalifornia. Oertain requirements for the major must be completed at Berkeley.

[^7]:    * If it becomes necessary to limit the number of students receiving instruction iu chemistry in the University, preference will be given to those who enter with credit in any two of the following high school subjects: ohemistry, 1 unit; physics, 1 unit; plane trigonometry, $1 / 8$ unit.

[^8]:    * Students who plán to take library practice courses in 1923-24 or later should consult the Associate Librarian before making choice of a major gubject. It will no longer be possible to make library practice a major, but combination majors are planned for those who wish to become librarians.

[^9]:    * In and after August, 1924, the requirements for admission to the three-year course will be the eame as to the academic departments of the University. Until Augnst, 1924, preference will be given to those applicants who are able to meet this requirement.
    $\dagger$ 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, $y_{\text {g }}$ unit.

[^10]:    * Attendance in the summer session does not give standing as an "old student."

[^11]:    * An additional passing grade, $P$, may be given in certain gtated conrses where the individual work of the student cannot be determined with accuracy.

[^12]:    ${ }^{1}$ An examination in Subject A: English Composition is required of all intrants at the time of their first registration in the Southern Branch. See pages 41 and 97.

[^13]:    * An examination in Subject A: English Composition is required of all undergraduate intrants at the time of their first registration in the University. For further regulations concerning Subject A see first page of General Information.

[^14]:    - Etudents completing these curricula may also receive the general elementary credential upon the completion of a course in Principles of Elementary Education. Education 150 is designed to meet this need.

[^15]:    * The courses listed above are required for general elementary certification in the degree curricula. In various special curricula other professional courses are substituted.
    $\dagger$ Application for teaching assignments should be made some weeks before the opening of the semester in which the teaching is to be undertaken. Assignments are made in advance of the registration of students for other courses.

    Regular group conferences with supervisors or training teachers each week are a required accompaniment of each teaching assignment. The 8 o'clock period on Tuesday must be kept open for this purpose.

    Note.-Students entering the Teachers Oollege 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.

[^16]:    * Other courses in the same department may be substituted with written approval of chairman of department and adviser.

[^17]:    * Other courses in the same department may be substituted with written approval of chairman of department and adviser.

[^18]:    * Other courses in the same department may be substituted with written approval of chairman of depurtment and adviser.

[^19]:    * Other courses in the same department may be substituted with the written approval of chairman of department and adviser.
    $\dagger$ Fither two or three departmental sequences should be chosen by the stndent in conformance with the statement on page 62.

[^20]:    * Students may ordinarily qualify for the Elementary Special Teaching Credential upon the completion of the third year of this course.

[^21]:    *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 upplicants must be approved by the Department of Home Economics.

[^22]:    * Students completing the third year of this course will ordinarily qualify for the elementary special teaching oredential.

[^23]:    * The Southern Branch reserves the right to withdraw or modify these comsees, or to change the instructors.

[^24]:    * Only 12 units may be taken by students in the College of Letters and Science.

[^25]:    - Absent on leave.

[^26]:    * Upon the completion of the Junior Year atudents will ordinarily receive the Hlementary Special Home Feonomics Credential.

[^27]:    * Students who are members of the National Gusrd or of the United States Naval Reserve Force are authorized to wear their guard or naval uniform in their military training at the University, and, npon application to the Supply Officer at the Military Ecience Building, may be excused from paying the deposit for uniform. Euch students will pay a deposit of $\$ 3$ to cover cost of text bools issued to them.

[^28]:    * Not to be given 1928-24.

[^29]:    * Absent on leave, 1928-24.

[^30]:    - Oredit B. All courses offered either semester.

[^31]:    -* The italicizing of a name indicates that the courses in that field are fully described on the page stated.

