

**University of California Bulletin**

**SOUTHERN BRANCH**

**FOURTH SERIES. Vol. III, No. 1**

**ANNOUNCEMENT**

**OF THE**

**SOUTHERN BRANCH**

**FOR THE**

**ACADEMIC YEAR 1921-22**

**JULY, 1921**

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**Southern Branch, No. 1**

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**CIRCULARS OF INFORMATION**

For the Announcement of the Southern Branch of the University of California address the Recorder, Southern Branch, University of California, Los Angeles, California. Price 10 cents; by mail 15 cents.

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For the following circulars of information concerning the several colleges and departments of the University apply to the *Mailing Division, President's Office, University of California, Berkeley, California.*

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For the Annual Report of the President, apply to the *Manager of the University of California Press, at Berkeley.*

*(Continued on third page of cover)*

UNIVERSITY OF CALIFORNIA

ANNOUNCEMENT  
OF THE  
**SOUTHERN BRANCH**  
FOR THE  
ACADEMIC YEAR 1921-22

UNIVERSITY OF CALIFORNIA  
1921

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

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

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

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

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CALENDAR, 1921-1922

1921

- September 8, Thursday }  
September 10, Saturday } Registration of new students.  
September 12, Monday—Registration of old students.  
September 13, Tuesday—Instruction begins at 8 a.m.  
November 24, Thursday }  
November 26, Saturday } Thanksgiving recess.  
December 22, Thursday }  
December 31, Saturday } Christmas recess.

1922

- January 14, Saturday—Semester closes.  
January 23, Monday—Registration of students for the second half-year.  
March 23, Thursday—Charter Day.  
March 27, Monday }  
April 1, Saturday } Spring vacation.  
May 27, Saturday—Alumni Day.  
June 10, Saturday—Semester closes.  
June 26, Monday }  
August 5, Saturday } Summer sessions of the Academic Colleges in Los Angeles and Berkeley.

## REGENTS OF THE UNIVERSITY

NOTE.—The regular meetings of the Regents are held at 2 p.m. on the second Tuesday of each month, except July, and on the day before Commencement, at such places as may from time to time be determined, ordinarily at the California School of Fine Arts, California and Mason streets, San Francisco. The Los Angeles office of the Regents is in Room 831, Pacific Finance Building, Los Angeles.

## REGENTS EX OFFICIO

His Excellency WILLIAM D. STEPHENS  
Governor of California and President  
of the Regents  
Sacramento

CLEMENT CALHOUN YOUNG, B.L.  
Lieutenant-Governor of California  
Sacramento (276 Post st, San Fran-  
cisco)

HENRY W. WRIGHT  
Speaker of the Assembly  
1009 Fair Oaks av, South Pasadena

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State Superintendent of Public In-  
struction  
Sacramento

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Society  
Bakersfield

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President of the Mechanics' Institute  
250 Stockton st, San Francisco

WARREN GREGORY, A.B., LL.B.  
President of the Alumni Association  
Merchants Exchange bldg, San Fran-  
cisco

DAVID PRESCOTT BARROWS, Ph.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.

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RUDOLPH JULIUS TAUSSIG (1932)  
1521 Van Ness av, San Francisco

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(1924)  
Crocker National Bank, San Fran-  
cisco

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cisco

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First National Bank, San Francisco

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1100 Franklin st, San Francisco

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510 Lucerne blvd, Los Angeles

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Hamilton City

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Fresno

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Mrs. MARGARET SARTORI (1922)  
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Angeles



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Stephens  
President  
Sacramento

Robert Gordon Sproul, B.S.  
Comptroller, Secretary of Regents, and  
Land Agent  
220 California Hall, Berkeley

Mortimer Fleishhacker,  
Treasurer  
Anglo-California Trust Company, San  
Francisco

James M. Mannon, Jr., LL.B.  
Attorney  
1107 Merchants Exchange bldg, San  
Francisco

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FOR THE YEAR 1921-22\*

*Agriculture:*

Regents Foster, Jastro, Dickson, Mills,  
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*Committee on Conference with Faculty:*  
Regents Moffitt, Gregory, Taussig,  
Bowell, and Ramm.

*Committee on Educational Relations:*  
Regents Wood, Dickson, Rowell,  
Ramm, and Earl.

*Endowments:*

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tori, Bowles, Cochran, McEnerney,  
and Fleishhacker.

*Engineering:*

Regents Ramm, Fleishhacker, Britton,  
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*Executive Committee:*

This committee consists of the chair-  
men of all standing committees and  
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ciation.

*Finance:*

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*Jurisprudence:*

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*Library, Research and Publications:*

Regents Bowles, Moffitt, Gregory,  
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*Lick Observatory:*

Regents Fleishhacker, McEnerney,  
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*Medical Instruction and University*

*Hospitals:*

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Mrs. Sartori, Wood, Rowell, Taus-  
sig, and Wright.

*Wilmerding School:*

Regents Taussig, Earl, Moffitt, and  
Mauzy.

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

# University of California

## ADMINISTRATIVE OFFICERS

### IN BERKELEY

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Benjamin Ide Wheeler  
126 Library

*President of the University:*  
David P. Barrows  
217 California Hall

*Executive Secretary to the President:*  
Morse A. Cartwright  
217 California Hall

*Comptroller, Secretary of the Board of Regents, and Land Agent:*  
Robert Gordon Sproul  
220 California Hall

*Recorder of the Faculties:*  
James Sutton  
204 California Hall

### IN LOS ANGELES

*Southern Branch of the University of California—*

*Director of the Southern Branch:*  
Ernest C. Moore

108 Millspaugh Hall

*Assistant Director of the Southern Branch:*

Cloyd H. Marvin  
105 Millspaugh Hall

*Summer Session in Los Angeles:*

*Dean:* Baldwin M. Woods  
105 California Hall, Berkeley

†*Los Angeles Medical Department—*

*Dean:* \*George H. Kress,  
*Acting Dean:* E. K. Shumaker  
245 Bradbury Building

*Extension Division—*

*Representative in Southern California:*  
Miss Nadine Crump  
Metropolitan Building

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† Graduate instruction only is offered in the Los Angeles Medical Department.

\* Absent on leave, 1921-22.

## CIRCULAR OF INFORMATION

### I. THE UNIVERSITY

#### INTRODUCTION

The following general information concerning the University is important for students in all of its branches and is, therefore, published for the guidance of those interested in the Southern Branch.

#### HISTORY

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 Rev. Henry Durant. In 1853, under the auspices of the Presbytery of San Francisco, and of the Congregational Association of Oakland, Mr. Durant opened in Oakland the "Contra Costa Academy," but soon changed to the name 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 was secured five miles to the north, and 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 throwing in its buildings and four blocks of land in Oakland and its 160 acres of land in Berkeley, the federal government, the Congressional gift of 150,000 acres of public lands, and the state,

its property accumulated for the purpose, together with new legislative appropriations. The University of California was formally organized on March 23, 1868.

The University of California is governed by a Board of Regents of twenty-four members, sixteen of whom are appointed by the Governor and hold office for sixteen years, and eight are ex officio in character and tenure. The internal management is in the hands of the President and Academic Senate, consisting of the faculties and instructors of the University.

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

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

The Southern Branch of the University of California was established by an act of the Legislature which went into effect July 24, 1919. On that date the Regents of the University assumed control of the grounds, buildings, and equipment of the institution theretofore known as the Los Angeles State Normal School.

## DEPARTMENTS

### I. IN BERKELEY

#### The Colleges of

Letters and Science,

Commerce,

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

Mechanics,

Mining,

Civil Engineering,

Chemistry.

**The Schools of**

Architecture,

Education,

Jurisprudence,

Medicine (first and second years).

The University Extension Division (offering instruction wherever classes can be formed, or anywhere in California by correspondence, providing lectures, recitals, motion pictures and other material for visual instruction, etc., giving guidance and suggestions to debating clubs, and offering aid to communities through its Bureau of Information and Social Welfare).

The Summer Session.

The California Museum of Vertebrate Zoology.

**DEPARTMENTS OF INSTRUCTION IN THE COLLEGES AT BERKELEY**

Agriculture (including Agricultural Science, Agronomy, Animal Industries, Forestry, Horticulture, and Landscape Gardening), Anatomy, Anthropology, Architecture, Astronomy, Bacteriology and Experimental Pathology, Biochemistry, and Pharmacology, Botany, Celtic, Chemistry, Civil Engineering, Drawing and Art, Economics, Education, English, French, Geography, Geology, German, Greek, History, Household Art, Household Science, Hygiene, Irrigation, Italian, Jurisprudence, Latin, Library Science, Mathematics, Mechanical and Electrical Engineering, Military Science and Tactics, Mineralogy, Mining and Metallurgy, Music, Oriental Languages, Paleontology, Philosophy and Psychology, Physical Education, Physics, Physiology, Political Science, Public Speaking, Sanskrit, Semitic Languages, Slavic Languages, Spanish, Zoology.

**II. AT MOUNT HAMILTON**

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.

*University of California*

## V. IN LOS ANGELES

Los Angeles Medical Department, graduate instruction only.  
Southern Branch of the University.  
The Summer Session.

## VI. AT DAVIS

The University Farm School; college instruction and research in Agronomy, Animal Husbandry, Dairy Industry, Farm Mechanics, Olericulture, Poultry Husbandry, Pomology, Soils, and Veterinary Science.

## VII. AT RIVERSIDE

The Graduate School of Tropical Agriculture.

## VIII. AT LA JOLLA

The Scripps Institution for Biological Research.

## IX. AT SWANTON

The Summer School of Surveying.

## ORGANIZATION

The University of California is an integral part of the public educational system of the state. As such it completes the work begun in the public schools. Through aid from the state and the United States, and by private gifts, it furnishes facilities for instruction in literature and in science, and in the professions of art, law, medicine, dentistry, and pharmacy. In the colleges of Letters and Science, Commerce, Agriculture, Mechanics, Mining, Civil Engineering, and Chemistry these privileges are offered without charge for tuition to all residents of California who are qualified for admission. Non-residents of California are charged a tuition fee of seventy-five dollars each half-year. In certain professional colleges tuition fees are charged. 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.

## ADMINISTRATION

The government of the University of California is entrusted to a corporation styled THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, consisting of the Governor, the Lieutenant-Governor, the Speaker of the Assembly, the State Superintendent of Public Instruction, the President of the State Board of Agriculture, the President of the Mechanics' Insti-

tute of San Francisco, the President of the Alumni Association, and the President of the University, as members *ex officio*, and sixteen other regents appointed by the Governor and approved by the Senate. To this corporation the State has committed the administration of the University, including management of the finances, care of the property, appointment of teachers, and determination of the internal organization in all particulars not fixed by law.

### UNDERGRADUATE CURRICULA

The courses of instruction offered at the Southern Branch for the year 1921-22 are of three general types, as indicated below:

#### I. Curricula leading to teachers' certificates:

- (a) Two-year courses leading to the Elementary Teacher's Certificate or the Kindergarten-Primary Certificate.
- (b) Three-year courses leading to the Special Elementary Certificate in Commerce, Household Arts, Manual and Fine Arts, Music, or Physical Education.
- (c) Four-year courses, leading to the Special Secondary Certificate in Commerce, Household Arts, Manual and Fine Arts, Music, or Physical Education.

#### II. Four-year Courses for Teachers. Described on pages 79-88.

#### III. Junior College Curricula:

Instruction covering the work of the Freshman and Sophomore years of the University.

### ACADEMIC COLLEGES

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

The Colleges of Applied Science	}	to the degree of Bachelor of Science:
		in the College of Commerce;
		in the College of Agriculture—in any one of the following: agricultural science, agronomy, animal industries, forestry, horticulture, landscape gardening;
		in the College of Mechanics—(1) in mechanical engineering, or (2) in electrical engineering, or (3) in marine engineering and naval architecture, or (4) in aerodynamics;
		in the College of Mining—(1) in mining, or (2) in metallurgy, or (3) in economic geology, or (4) in petroleum engineering;
		in the College of Civil Engineering—(1) in railroad engineering, or (2) in sanitary engineering, or (3) in irrigation engineering;
		in the College of Chemistry—(1) in chemistry, or (2) in chemical technology.

There are permitted, in addition, courses at large and partial courses, not leading directly to any degree, but through each of which, by compliance with the conditions upon which it is conferred, credit toward a degree may be acquired.

The University has no preparatory department.

**PROFESSIONAL CURRICULA**

At Berkeley also are the Schools of

- Architecture, leading to the degree of Graduate in Architecture;
- Education, leading to the degree of Doctor in Education and to the high school teacher's recommendation;
- Jurisprudence, leading to the degree of Juris Doctor;
- Medicine, first year and part of the second year of the five-year curriculum leading to M.D. (the remainder of the work is given in San Francisco);

And the curricula in

- Public Health—three curricula, each leading to the degree of Graduate in Public Health; two of these are given wholly at Berkeley and the third (for candidates for M.D. and Gr.P.H.) is in part at Berkeley and in part in San Francisco;
- Home Economics, leading to the degree of Bachelor of Arts in the College of Letters and Science, with a major subject in Household Art or in Household Science.

The work of the Medical School (except that of the first year and part of the second year, as above), of the California College of Pharmacy, of the Hastings College of the Law, and of the College of Dentistry is conducted in San Francisco. The first year of work in the Schools of Education and Medicine, the first year of the three-year curriculum in the School of Jurisprudence, the first and second years in the School of Architecture, and the first and second years of the four-year curriculum in Jurisprudence, may be credited towards the degree of Bachelor of Arts in the College of Letters and Science. The work so credited is regarded as academic rather than as purely professional in character, and the student pursuing this work is enrolled not only in the appropriate school or curriculum but also in the College of Letters and Science, and is subject to all the regulations of that college.

In like manner students in the several curricula in Public Health may be simultaneously candidates for the professional degree of Gr.P.H. and also for the degree A.B. (College of Letters and Science), B.S. (College of Civil Engineering), or M.D. (Medical School).



## ADMISSION TO THE UNIVERSITY

### ADMISSION FROM ACCREDITED SCHOOLS IN CALIFORNIA

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

1. The school must have been accredited by the University of California.
2. The applicant must have completed a four-year high school course, aggregating at least 15 standard units of preparatory work (the equivalent of 45 units by the scale heretofore used), and he must be duly certified as a graduate of the school.
3. The candidate must be specially recommended for admission to the University of California.

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

The accrediting of secondary schools is regulated by an order of the Regents of the University passed March 4, 1884, and amended September 10, 1895, and January 10, 1905. Principals' applications for the accrediting of their schools must be in the hands of the Recorder of the Faculties at Berkeley on or before the first day of December of each school year.

The list of accredited schools is published by the University annually, in the month of June or July. Blank forms of application for accrediting and lists of accredited schools may be obtained from the Recorder of the Faculties at Berkeley.

*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 underlie the University work. A list of the curricula, with a statement of the preparatory work required and recommended, is given hereunder.

### ADMISSION FROM CALIFORNIA SCHOOLS NOT ACCREDITED

A graduate of a California secondary school not accredited by the University who is strongly recommended by the principal of his school will be admitted 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), 1½ units.
- (c) Foreign languages, 3 units in one, or 2 units in each of two.
- (d) Additional advanced science, 2 units.

#### ADMISSION FROM APPROVED HIGH SCHOOLS IN OTHER STATES

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

*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 underlie 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 upon the applicant's high school training, his age, and his proposed course of study in the University. The applicant must pass examinations in at least fifteen standard high school units.

#### MATRICULATION EXAMINATIONS AT BERKELEY

Matriculation examinations are held in Berkeley in August and in January of each year; but the examinations in January are primarily for the purpose of enabling students in the University to remove matriculation deficiencies. Applicants for admission who present certificates

from their teachers that they are prepared in the subjects they offer will be admitted to the January examinations. Such certificates must be filed with the Recorder of the Faculties in Berkeley 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, University of California, Berkeley, California.

MATRICULATION EXAMINATIONS AT LOS ANGELES

Applicants desiring to take matriculation examinations in Los Angeles may pass those conducted by the College Entrance Examination Board, described elsewhere.

List of Preparatory Subjects

A list of preparatory subjects, with the amount of matriculation credit assigned to each, is given below. 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:

New No.		Old of No. Credit	Units	New No.		Old of No. Credit	Units
1a	English, elem.....	(1)	2	75b <sup>d</sup>	Latin, adv., 4th yr.....	(7b,7c)	1
1b	English, adv. I.....	(14a)	1	75c <sup>d</sup>	French, elem., 1 yr. of 5c <sup>d</sup>	(15a <sup>d</sup> )*	1
1c	English, adv. II.....	(14b)	1	75c <sup>d</sup>	French, elem.....	(15a <sup>d</sup> )	2
2a	Algebra, elem.....	(3)	1	75c <sup>d</sup>	French, intermed.....	(15a <sup>d</sup> )	1
2b <sup>1</sup>	Algebraic Theory, I.....	(4a <sup>1</sup> )	1	75c <sup>d</sup>	French, adv.....	(15a <sup>d</sup> )	1
2b <sup>2</sup>	Algebraic Theory, II.....	(4a <sup>2</sup> )	1	75d <sup>1</sup>	German, elem., 1 yr. of 5 <sup>2</sup>	(15b <sup>1</sup> )*	1
2c	Plane Geometry.....	(2)	1	75d <sup>2</sup>	German, elem.....	(15b <sup>2</sup> )	2
2d	Solid Geometry.....	(4b)	1	75d <sup>3</sup>	German, intermed.....	(15b <sup>3</sup> )	1
2e	Plane Trigonometry.....	(12a <sup>3</sup> )	1	75d <sup>4</sup>	German, adv.....	(15b <sup>4</sup> )	1
2f	Plane Analytic Geometry.....	(12a <sup>4</sup> )	1	75e <sup>1</sup>	Spanish, elem., 1 yr. of 5e <sup>d</sup>	(15c <sup>d</sup> )*	1
3a	Physics.....	(11)	1	75e <sup>2</sup>	Spanish, elem.....	(15c <sup>d</sup> )	2
3b	Chemistry.....	(12b)	1	75e <sup>3</sup>	Spanish, intermed.....	(15c <sup>d</sup> )	1
3c	Physiology and Hygiene.....	(12f)	1	75e <sup>4</sup>	Spanish, adv.....	(15c <sup>d</sup> )	1
3d	Botany.....	(12c)	1	76a	Freehand Drawing.....	(16)	1
3e	Zoology.....	(12d)	1	76b	Geometrical Drawing.....	(17)	1
3f	Biology.....	(12h)*	1	7	Mechanic Arts.....	(18a)	1-3
3g	Physical Geography.....	(12e)	1	8	Agriculture.....	(19)*	1-3
3h	General Science.....	(12g)*	1	9	Domestic Science.....	(18a <sup>d</sup> )*	1-3
4a	History and Gov. of the U.S.....	(5)	1	10a	Music, Sight Singing and Dictation.....	(21a)	1
4b	History, Ancient.....	(10)	1	10b	Music, Elements of Composition.....	(21b)	1
4c	History, Med. and Mod.....	(13a)	1	10c	Music, Instrumental and Vocal Technique.....	(21c)	1
4d	History, English.....	(13b)	1	10d	Music, History of Modern European Music.....	(21d)	1
75a <sup>1</sup>	Greek, elem.....	(8a)*	1	11	Bookkeeping.....	(20c)	1
75a <sup>2</sup>	Attic Prose.....	(8b)	2	12	Stenography and Typewriting.....	(20d)	1-2
75a <sup>3</sup>	Attic Prose, adv.....	(9a)	1	13	Military Science and Tactics*.....	1	
75a <sup>4</sup>	Homer.....	(9b)	1				
75b <sup>1</sup>	Latin, elem., 1st yr.....	(6a <sup>1</sup> )*	1				
75b <sup>2</sup>	Latin, elem., 2d yr.....	(6a <sup>2</sup> , 6b <sup>2</sup> )	2				
75b <sup>3</sup>	Latin, adv., 3d yr.....	(7a,7c)	1				

\*No examination.

†The dagger indicates subjects for which equivalent courses are offered in the University. For further description of these courses reference should be made to the annual ANNOUNCEMENT OF COURSES.

*College Entrance Examination Board*

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

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

All applications for examination must be addressed to the College Entrance Examination Board, 431 West 117th street, New York, N. Y., and must be made upon a blank form to be obtained from the Secretary of the board upon application. The separate form for the certificate of recommendation (also to be obtained from the Secretary of the board) should be addressed to the Chairman of the Committee on Admission of the university, college, or scientific school that the candidate wishes to enter.

If the application is received sufficiently early, the examination fee will be \$6 for candidates examined in the United States or Canada and \$20 for candidates examined outside of the United States or Canada. The fee should be remitted by postal order, express order, or draft on New York to the order of the College Entrance Examination Board, and should accompany the application.

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

When the candidate has failed to obtain the required blank form of application for examination, the usual examination fee will be accepted if the fee arrive not later than the specified date accompanied by a memorandum containing the name and address of the candidate, the examination center at which he wishes to present himself, and a list of all the subjects in which he may have occasion to take the board's examinations.

Applications received later than the dates named will be accepted only upon payment of \$6 in addition to the usual fee.

A list of the places at which examinations are to be held by the board in June, 1922, 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, Nordhoff, Stanford University, Portland, Seattle, Spokane, Tacoma.

#### ADMISSION ON TEACHERS' 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 SCHOOL PROGRAM

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 must 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. Special attention is invited to the importance of high school instruction in the following subjects:

*Subject A: English Composition.*—All undergraduate entrants 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 continue class work in English composition in the University until such time as they reach a

satisfactory standard of expression. A leaflet containing further information concerning Subject A may be obtained from the Recorder of the Faculties.

*Foreign Language.*—In practically all colleges and departments of the University a reading knowledge of a modern foreign language will be helpful. In many departments such reading knowledge is indispensable for advanced work. Though the University gives instruction in the elements of modern foreign languages, high school pupils who are intending to enter the University should not neglect the study of foreign language in the high school if facilities for such study be offered there. This work can, as a rule, be more profitably undertaken by pupils of high school age than by older persons. If it becomes necessary to limit the number of students receiving instruction in the elements of foreign languages in the University, preference will be given to those who enter with two years or more of high school credit in a foreign language.

*Mathematics.*—If possible, provision should be made in the high school program for two years of work in mathematics, namely, elementary algebra and plane geometry.

#### PREPARATION FOR THE VARIOUS CURRICULA

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

A "curriculum" is understood to be either a technical or specialized program of studies, as in the Colleges of Engineering, Agriculture, and Commerce; or a more general program (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 recommendations" is addressed rather to the student who desires to be well prepared to complete a full undergraduate major—possibly as a candidate for honors—than to the student who wishes merely to satisfy 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 prerequisites 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; none in elementary algebra or plane geometry except in the Extension Division,

though, until further notice, resident instruction in plane geometry and elementary algebra will be provided for students who have not had this work in the high school. The equivalent of the high school courses in physics and chemistry is given in the summer session, not during the fall or spring session.

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

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

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

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

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

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

**Recommended:** foreign language, geography.

**Architecture:** leading to the degree of Bachelor of Arts in the COLLEGE OF LETTERS AND SCIENCE, at the end of four years, and to the degree of Graduate in Architecture in the SCHOOL OF ARCHITECTURE at the end of six years.

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

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

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

**Required:** same as for ENGINEERING, with French or German. See also SCIENCES, below.

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

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

**Recommended:** additional mathematics; natural sciences; modern foreign language.

**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.

**Drawing and Art:** leading to the degree of Bachelor of Arts.

**Engineering Drawing.**

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

*Recommended:* solid geometry ( $\frac{1}{2}$ ); plane trigonometry ( $\frac{1}{2}$ ); geometrical drawing (1); freehand drawing (1).

**Graphic Art.**

*Recommended:* freehand drawing (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.

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

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

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

*Recommended:* same as for ENGINEERING.

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

*Recommended:* foreign language.

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

*Required:* chemistry (1).

*Recommended:* freehand drawing (1); botany (1); domestic science (2).



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

*Required:* chemistry (1); domestic science (cooking) (1).

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

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

*Required:* Latin (2).

*Recommended:* advanced Latin (2); Greek (3); 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—Celtic, French, German, Italian, Oriental, Sanskrit, Semitic, Slavic, Spanish:** leading to the degree of Bachelor of Arts.

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

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

*Recommended:* physics (1) or chemistry (1); Latin (2); U. S. history (1) and English history (1).

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

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

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

*Recommended:* foreign language.

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

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

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

**Medicine:** leading to the degree of Doctor of Medicine in seven years; or to the degree of Bachelor of Arts in the COLLEGE OF LETTERS AND SCIENCE and Doctor of Medicine in the MEDICAL SCHOOL in a combined course of eight years.

*Required:* English (3); elementary algebra (1); plane geometry (1); physics (1); chemistry (1); French (2) or German (2); history (1).

*Recommended:* advanced mathematics; freehand drawing (1).

A full statement of the prerequisites for the course in medicine will be found in the announcement of the Medical School.

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

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

**Nursing:** leading to the degree of Bachelor of Science at the end of a five-year course, including two years' training in the University of California School of Nursing in San Francisco.

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

*Recommended:* foreign language.

**Pharmacy:** (A) leading to the degree of Ph.G. (Graduate in Pharmacy) at the end of a course of two years in the California College of Pharmacy.

*Required:* two years of approved high school work or its equivalent.

Beginning with the academic year 1922-23, the minimum entrance requirement will be graduation from an accredited high school or its educational equivalent.

(B) leading to the degree of Ph.C. (Pharmaceutical Chemist) at the end of a course of three years in the California College of Pharmacy.

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

(C) leading to the degree of Phar.B. (Bachelor of Pharmacy) at the end of a course of four years in the California College of Pharmacy.

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

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

*Recommended:* foreign language; mathematics; physics or chemistry.

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

*Required:* chemistry (1).

*Recommended:* foreign language, chemistry, physics, mathematics.

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

*Recommended:* foreign language.

**Public Health:** (1) leading to the degree of Bachelor of Arts in the COLLEGE OF LETTERS AND SCIENCE at the end of four years and to the degree of Graduate in Public Health (Gr.P.H.) in the GRADUATE DIVISION at the end of six years.

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

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

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

*Required:* same as for ENGINEERING; see above.

*Recommended:* same as for ENGINEERING; see above.

(3) leading to the degrees of Doctor of Medicine and Graduate in Public Health in seven years; or to the degrees of Bachelor of Arts and Graduate in Public Health in the COLLEGE OF LETTERS AND SCIENCE and Doctor of Medicine in the MEDICAL SCHOOL in a combined course of eight years.

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

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

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

*Recommended:* same as for English; see above.

**Sciences** (Anatomy, Astronomy, Bacteriology and Experimental Pathology, Biochemistry, Botany, Chemistry, Geography, Geological Sciences (Geology, Mineralogy and Paleontology), Hygiene, Physics, Physiology, Psychology, Zoology): leading to the degree of Bachelor of Arts.

*Required:* elementary algebra (1); plane geometry (1); chemistry (1); physics (1). Physics or chemistry and trigonometry are required for students who intend to specialize in physics.

*Recommended:* advanced mathematics (2); German (2) or French (2). Physics (1) is recommended but not required for students who intend to specialize in zoology or geography. Geometrical drawing (1) is recommended for students who intend to specialize in chemistry.

### ADMISSION WITH ADVANCED STANDING

#### ADMISSION FROM OTHER COLLEGES AND UNIVERSITIES

Applicants may be given advanced standing in the University of California on the basis of certificates from other colleges and universities upon the approval of the certificates by the proper committee. A form of statement of university work, which may be used for such certificates, will be furnished on application to the Recorder of the Faculties, University of California, Berkeley. 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 Faculties, in order that they may be placed before the Board of Admissions for an estimate of their value in terms of the requirements of the University of California. The committee, acting on behalf of the faculties, is empowered to reject the certificates, in whole or in part, and to require examination in any or all of the subjects offered.

Credit for Subject A (English expression) is not given upon certificate. An examination at the University is required in all cases.

#### ADMISSION FROM NORMAL SCHOOLS

A recommended graduate of a two-year academic course in a California state normal school, who is also a graduate (with University recommendation) of an accredited high school, receives in the University thirty-two units of credit and exemption from the prescribed work in physical education and hygiene. Further credit, depending upon subject matter and scope of the course taken in the normal school, may be allowed to the extent of sixteen units; but the normal school graduate will not be able to utilize the maximum of credit allowed unless his high school and normal school programme have been so planned as to make it possible to meet the junior certificate and degree requirements of the college in which he enrolls.

In the College of Letters and Science and in the College of Commerce the junior certificate requirements are largely prescribed, and allow only a limited amount of free elective credit. A normal school graduate who has had little or no training in foreign languages will ordinarily find it impossible to take advanced work in foreign languages in the University in a programme of study leading to the bachelor's degree in two and one-half years.

Similarly the premedical curriculum and the curricula of the colleges of engineering include a number of prescribed courses which are not paralleled in the normal school curriculum.

Graduates of California State normal schools or of other normal schools of equal rank who become candidates for a high school teacher's certificate may be exempted from the additional half-year of residence required beyond the bachelor's degree.

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.

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.

#### ADMISSION 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 will be tested by an oral and written examination set by the Board of Admissions. A brief circular concerning the rules of the Board of Admissions in the matter of assignment of credit in languages to foreign students may be obtained from the Recorder of the Faculties, University of California, Berkeley, California.

#### SURPLUS MATRICULATION CREDIT

With the adoption of the revised plan of admission to the University there is no longer provision for advanced standing in the University on the basis of surplus high school credit. Such credit may, by special action of the Board of Admissions, be given under the old rules to students who matriculated in the University before August, 1920.

## II. THE SOUTHERN BRANCH

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### INTRODUCTION

The following brief statements regarding the Southern Branch of the University are of interest to all who are in any way connected with it or with the parent institution.

### HISTORY

In March, 1881, the Los Angeles State Normal School was established by legislative act. A five-acre site at the corner of Fifth and Grand avenue was secured and the corner stone of the first building was laid December 17, 1881. The school opened in August, 1882, with a faculty of three members and an enrollment of sixty-one students.

The original site and buildings having become inadequate for the growing needs of the institution, in 1907 the Legislature authorized the sale of the property and in 1911 made an appropriation for the purchase of a more suitable location. In the following year the present site, a campus of twenty-four acres (later increased to twenty-five) was purchased, and on November 18, 1913, the cornerstone of the principal building, Millsbaugh 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 Los Angeles State Normal 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. Ernest C. Moore was appointed Director of the Southern Branch of the University of California.

This act provided for continuance of teacher training courses then being given and for the institution of freshman and sophomore work of the University.

### SITE AND BUILDINGS

The campus of the Southern Branch of the University of California 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.

## CLIMATE

The climate of Los Angeles is essentially maritime and is therefore well suited to college work at all seasons of the year. The mean annual temperature is 62° F. August, the warmest month, has a mean temperature of 71° F. The coldest month is January, the mean temperature of which is 54° F. The high percentage of sunshine and the invigorating sea breezes are conducive to both physical and mental vigor.

## ADMINISTRATIVE OFFICERS

DAVID PRESCOTT BARROWS, Ph.D., LL.D., President of the University.

- ERNEST CARROLL MOORE, Ph.D., LL.D., Professor of Education and Director of the Southern Branch of the University.

ADVISORY ADMINISTRATIVE BOARD, SOUTHERN BRANCH, UNIVERSITY OF CALIFORNIA:

- ERNEST C. MOORE, Ph.D., LL.D., Chairman,

BALDWIN M. WOODS, Ph.D.,

ROBERT J. LEONARD, M.A.,

THE COMPTROLLER OF THE UNIVERSITY.

- CLOYD H. MARVIN, Ph.D., Assistant Director.

- HELEN MATTHEWSON LAUGHLIN, Counsellor of Women.

- 2 / LEWIS A. MAVERICK, M.A., Recorder.

- 2 / WILLIAM J. NORRIS, M.D., Physician for Men.

- 2 / LILLIAN RAY TITCOMB, M.D., Physician for Women.

- 1 RUBY I. MCLEAN, R.N., Nurse.

- M. BURNLEY PORTER, Appointment Secretary and Supervisor of Teacher Training.

- ELIZABETH H. FARGO, Librarian.

- ELIZABETH P. STUBTEVANT, Assistant Librarian.

- BEATRICE M. HOLLOWAY, Assistant Librarian.

- ESTELLA D. LAKE, Assistant Librarian.

## FACULTY

- 2 / JOHN MEAD ADAMS, Ph.D., Associate Professor of Physics.

- 2 / BERNICE ALLEN, Instructor in Home Economics.

- 2 / EVA M. ALLEN, Associate in Commercial Practice.

- 2 / HERBERT F. ALLEN, Ph.D., Assistant Professor of English.

- 2 / SARAH ROGERS ATSATT, M.S., Instructor in Biology.

- 1 MABEL O. BARNHART, Associate in Music.

- 2 / RUTH E. BAUGH, A.B., Associate in Geography.

- 2 / FREDERICK E. BECKMAN, Ph.D., Associate in French and Spanish.

- 2 / ISABEL BEVIER, Ph.M., D.Sc., Lecturer in Home Economics.

- W. G. BINGHAM, Captain, U. S. A., Assistant Professor of Military Science and Tactics.
- 1 FREDERIC T. BLANCHARD, M.A., Associate Professor of English.
- 2 1 ETHEL BRITTO, Training School Teacher in charge of First Grade.
- 1 FOSS R. BROCKWAY, Associate in Mechanic Arts.
- 2 1 ANNA P. BROOKS, A.B., B.S., Instructor in Fine Arts.
- 2 1 H. R. BRUSH, Ph.D., Associate Professor of Romance Languages.
- 2 1 MARGARET M. CAMPBELL, B.S., Training School Teacher in charge of the Ninth Grade.
- 2 1 MARGARET CARHART, Ph.D., Instructor in English.
- 1 FORD ASHMAN CARPENTER, LL.D., D.Sc., Lecturer in Meteorology.
4. <sup>not</sup> 2 1 A. G. W. CEEF, M.A., Litt.D., Honorary Lecturer in French.
- 2 1 Mrs. A. G. W. CEEF, Teacher of French in the Training School. *also French C.*
- 2 1 HELEN C. CHANDLER, Assistant Professor of Fine Arts.
- 2 1 ORABEL CHILTON, B.S., Associate in Home Economics.
- 2 1 KATHERINE CLOSE, M.D., Lecturer in Hygiene.
- 2 1 MYRTIE COLLIER, B.S., Assistant Professor of Mathematics.
- 2 1 KATHERINE COLLINS, M.A., Associate in English.
- 1 ~~F. M. COUCH, Lecturer in Credits and Collections.~~ *apparently not here*
- 2 1 FREDERICK W. COZENS, M.A., Assistant Professor of Physical Education.
- ok <sup>not</sup> 1 JOHN E. CREED, Major, U. S. A., Assistant Professor of Military Science and Tactics.
- 2 1 WILLIAM R. CROWELL, Ph.D., Assistant Professor of Chemistry.
- 2 1 MADELINE CROWELL, Teacher of Home Economics in the Training School.
- 1 MARVIN L. DARSIE, M.A., Assistant Professor of Education.
- 2 1 PIRIE DAVIDSON, M.A., Instructor in Zoology.
- 2 1 ANNITA DELANO, Associate in Fine Arts.
- ok <sup>not</sup> 1 LEO DELSASSO, Assistant in Physics.
- 2 1 L. E. DODD, Ph.D., Assistant Professor of Physics.
- 1 JAMES ROY DOUGLAS, Ph.D., Lecturer in Administration.
- MARY E. DOUGLASS, M.A., Assistant Teacher in the Kindergarten. *o.d. v. N. 42.*
7. <sup>not</sup> 2 1 ALBERT W. DOWDEN, A.B., Associate in Physical Education for Men.
- 2 1 FRED M. ESSIG, Ph.D., Instructor in Botany.
- 2 1 MAUD <sup>D.</sup> EVANS, Associate in Home Economics.
- 2 1 GRACE M. FERNALD, Ph.D., Associate Professor of Psychology.
- 2 1 S. CAROLYN FISHER, Ph.D., Assistant Professor of Psychology.
- 2 1 LUCY M. GAINES, M.A., Instructor in History.
- GEORGE W. GALBRAITH, Supervisor of Classes for the Training of Trade and Industrial Teachers. *Vol. Educ.*
- 2 1 NELLIE H. GERE, Associate Professor of Fine Arts.
- 2 1 HARRIET E. GLAZIER, M.A., Assistant Professor of Mathematics.
- ok <sup>not</sup> 1 NORMA GOULD, Assistant in Gymnastics.
- 2 1 AUSTIN K. GRAY, M.A., Assistant Professor of English.
- 2 1 BARBARA GREENWOOD, Teacher in charge of the Kindergarten.



- 2 | LUCILE B. GRUNEWALD, Associate in Physical Education.
- 2 | FLORENCE M. HALLAM, A.B., Associate in Home Economics.
- 2 | EDITH HARSBERGER, A.B., Associate in Physical Education for Women.
- 2 | BESSIE E. HAZEN, A.B., Instructor in Fine Arts.
- 2 | KATHERINE HERSEY, Associate in Physical Education.
- 2 | ALICE HUBARD, Teacher of Spanish in the Training School. *also Span LIA*
- 2 | ALICE O. HUNNEWELL, Instructor in English. *also French B*
- 2 | GUY H. HUNT, C.E., Instructor in Surveying. *Span L18*
- 2 | SIGURD HUSTVET, Ph.D., Assistant Professor of English.
- 2 | MABEL C. JACKSON, A.B., Training School Teacher in charge of the Seventh Grade.
- 2 | EMILY D. JAMESON, Associate in Physical Education.
- 2 | RAYMOND JENKINS, Ph.D., Instructor in English.
- 2 | KATHERINE KAHLEY, A.B., Training School Teacher in charge of the Eighth Grade.
- 2 | ADRIAN D. KELLAR, Associate in Mechanic Arts.
- 2 | HELEN B. KELLER, Supervisor of Adjustment Room.
- 2 | BLANCHE KELLS, Training School Teacher in charge of Physical Education.
- 2 | FRANK J. KLINGBERG, Ph.D., Associate Professor of History.
- 2 | WILLIAM J. KRAFT, Mus. Bac., Lecturer in Music.
- 2 | ANNA KRAUSE, A.B., Associate in Spanish.
- 2 | MELVA LATHAM, A.B., Assistant Professor of History.
- 2 | ELIZABETH LATHROP, Associate in Home Economics.
- 2 | C. A. LEDEUC, M.B.A., Ph.D., Assistant Professor of Accounting.
- 2 | MADELEINE LETESSIER, Associate in French.
- 2 | LAWRENCE C. LOCKLEY, A.B., Associate in English.
- 2 | LAWRENCE T. LOWREY, Ph.D., Assistant Professor of History.
- 2 | MARÍA LÓPEZ DE LOWTHER, B.S., Lecturer in Spanish.
- 2 | PAULINE LYNCH, Associate in Home Economics.
- 2 | MYRTA L. McCLELLAN, B.S., Assistant Professor of Geography.
- 2 | MARSHALL F. McCOMB, A.B., LL.B., Lecturer in Business Law.
- 2 | ARTHUR P. MCKINLAY, Ph.D., Assistant Professor of Latin.
- 2 | KATHERINE L. McLAUGHLIN, M.A., Associate Professor of Education.
- 2 | DONALD MACKAY, A.B., Associate in Philosophy.
- 2 | HARRIET MACKENZIE, M.A., Instructor in English.
- 2 | AGNES E. MACPHERSON, Associate in Home Economics.
- 2 | HAROLD W. MANSFIELD, Assistant Professor of Mechanic Arts.
- 2 | JAMES W. MARSH, Associate in Mechanic Arts.
- 2 | CHARLES E. MARTIN, Ph.D., Assistant Professor of Government.
- 2 | CLOYD H. MARVIN, Ph.D., Associate Professor of Commerce.
- 2 | LOYE H. MILLER, Ph.D., Associate Professor of Biology.
- 2 | ERNEST CARROLL MOORE, Ph.D., LL.D., Professor of Education.
- 2 | WILLIAM CONGER MORGAN, Ph.D., Professor of Chemistry.

- 2 / E. S. NELSON, A.B., Associate in Commerce.
- 2 / OLIVE NEWCOMB, Associate in Industrial Arts.
- 2 / FRANK E. OLDER, B.S., Assistant Professor of the Teaching of Agriculture.
- 2 / GLADYS PALMER, A.B., Associate in Physical Education.
- 2 / GUY H. PALMER, Colonel, U. S. A., Retired, Associate Professor of Military Science and Tactics.
- \*ALMA M. PATTERSON, M.A., Instructor in Education.
- 2 / JOHN B. PHILLIPS, Associate in Mechanic Arts.
- 2 / CARLYLE F. PIERSON, Teacher of Manual Arts in the Training School.
- 2 / ESTELLA B. PLOUGH, Associate in Commercial Practice.
- 2 / EDITH H. RINGER, Training School Teacher in charge of Third Grade.
- 2 / G. R. ROBERTSON, Ph.D., Instructor in Chemistry.
- 2 / EMMA J. ROBINSON, Training School Teacher in charge of Sixth Grade.
- 2 / CLARENCE H. ROBISON, Ph.D., Assistant Professor of Education.
- 2 / ETHEL I. SALISBURY, M.A., Associate Professor of Elementary Education.
- 2 / MRS. ADELAIDE A. SAMUELS, Teacher in charge of the Sub-Primary Class.
- 2 / GEORGE E. F. SHERWOOD, M.A., Associate Professor of Mathematics.
- 2 / HARRY M. SHOWMAN, E.M., M.A., Assistant Professor of Mathematics.
- 2 / BIRDIE K. SMITH, Associate in Fine Arts.
- 2 / WILLIAM A. SMITH, Ph.D., Assistant Professor of Education.
- 2 / LOUISE P. SOOY, Assistant Professor of Fine Arts.
- 2 / VERNON SPENCER, Assistant Professor of Music.
- 2 / KATHERINE SPIERS, B.L., Training School Teacher in charge of Fourth Grade.
- 2 / LULU M. STEDMAN, Training School Teacher in charge of Fifth Grade.
- 2 / H. W. STONE, Ph.D., Instructor in Chemistry.
- / NELLIE B. SULLIVAN, A.B., Instructor in Psychology.
- 2 / FLORENCE SUTTON, Assistant in the Department of Physical Education for Women.
- 2 / EVALYN THOMAS, A.B., Instructor in English.
- 2 / HARRY TROTTER, Assistant in Physical Education.
- 2 / BERTHA VAUGHN, Teacher of Voice.
- 2 / FREDERICK P. VICKERY, B.S., Instructor in Geology.
- 2 / C. W. WADDLE, Ph.D., Professor of Education, in charge of Training.
- 2 / EDITH WALLOP, Training School Teacher in charge of Second Grade.
- 2 / BERTHA A. WARDELL, Associate in Physical Education.
- 2 / ETHEL B. WARING, M.A., Assistant Professor of Education.
- 2 / A. H. WARNER, A.B., B.S., Associate in Physics.
- 2 / BERTHA E. WELLS, Assistant Supervisor of Practice Teaching.
- 2 / NATALIE WHITE, Associate in Industrial Arts.
- 2 / BELLE H. WHITICE, Associate in Industrial Arts.
- 2 / FLORENCE WILSON, A.B., B.S., Associate in Home Economics.
- 2 / FRANCIS A. WRIGHT, Associate Professor of Public School Music.

\* Absent on leave 1921-22.

**COURSES OF INSTRUCTION FOR THE YEAR 1921-1922**

**JUNIOR COLLEGE**

**THE REGULAR JUNIOR COLLEGE COURSE OF TWO YEARS**

In accordance with the authorization of the State Legislature, a limit of 1200 has been placed for admission to junior college courses for the academic year 1921-22.

In order to avoid possible failure to secure admission, applicants should register with the Recorder of the Southern Branch as early as possible. Credentials should be filed as soon as they are obtainable from the school authorities, in order that they may be passed upon not later than September 8. A fee of two dollars is charged for late registration, i.e., registration after September 13.

**TEACHERS' CURRICULA**

In accordance with the authorization of the State Legislature, a limit of 1200 has been placed for admission to the teachers' courses.

In order to avoid possible failure to secure admission, applicants should register with the Recorder as early as possible. Complete credentials should be filed as soon as they are obtainable from school authorities, in order that they may be passed upon not later than September 8. A fee of two dollars is charged for late registration, i.e., registration after September 13.

The following courses will be offered:

1. A two-year course for the training of elementary teachers, which leads to recommendation for the elementary teachers' certificate.
2. A two-year course in preparation of candidates for the kindergarten-primary certificate.
3. Three-year curricula which meet the requirements of the State Board of Education for the elementary teachers' certificate and those of a special certificate in one of the following departments, viz.: Fine Arts, Home Economics, Music, Mechanic Arts, or Physical Education.
4. Four-year curricula leading to recommendation for special certification of secondary grade in Commerce, Household Arts, Music, Manual and Fine Arts, Physical Education.
5. Four-year Courses for Teachers. The Regents of the University, at their meeting on February 8, 1921, authorized the establishment of four-year courses for teachers at the Southern Branch. The third year of these curricula will be offered for the first time in 1921-22, and the specific

courses composing the first three years of the curricula are stated in detail on pages 79-88. The fourth year's work will be announced early next year, and the instruction will be given for the first time in 1922-23. A limited number of students will be admitted to the third year of the courses in September, 1921; applications for admission should be filed with the Recorder of the Southern Branch.

#### ADVANCED WORK

Students who complete the regular two-year course for the elementary teachers' certificate have the opportunity to qualify for the junior high school certificate (grades 7-9) by an additional year of resident work during which, in accordance with the rules of the State Board of Education, they must complete the following requirements:

Thirty semester hours of work, at least ten semester hours of which must be taken in each of two of the following subjects: English, mathematics, French, Spanish, Latin, social sciences, physical sciences, or biological sciences.

Opportunity will be afforded such students to do practice teaching in the University Junior High School in the subjects of their choice. In a limited number of cases practice in supervision and administration may be afforded.

#### ADMISSION WITH ADVANCED STANDING

Applicants presenting credit earned in normal schools, colleges or universities, as well as those presenting evidence of successful experience in teaching covering a period of one or more years, will be given such advanced standing as individual cases merit.

Applicants for advanced standing should file credentials with the Committee on Advanced Standing.

#### TEACHING CREDENTIALS

Teachers' certificates are issued by city, county, and state boards of education in accordance with the provisions of the Political Code of California, Section 1519a; Section 1771, Subdivision 3; Section 1775, Subdivision 1, and Section 1792. The Southern Branch of the University of California is empowered, under the provisions of Section 1507, Subsection 3, of the Political Code, and in accordance with rules laid down by the State Board of Education, to grant recommendations for teachers' certificates, valid in this state, in each of the following grades: (1) Kindergarten-Primary, (2) Elementary, (3) Junior High School, (4) Special Elementary, (5) Special Secondary in Art, Commerce, Home Economics, Mechanic Arts, Music, and Physical Education. Preliminary certificates,

entitling the holder to do cadet teaching without salary, are also issued to student teachers upon recommendation of the Southern Branch. These certificates are granted under the following conditions:

1. Temporary Preliminary Certificates. (Valid for practice teaching without salary in such public school grades and subjects as may be indicated by the grade of certificate or definitely specified therein.)

No student teacher is permitted to teach in any public school without one of the following types of preliminary certificate. These may be arranged for by the Department of Practice Teaching:

- (a) Preliminary Certificate, Kindergarten.
- (b) Preliminary Certificate, Elementary.
- (c) Special Certificate, Elementary.
- (d) Special Certificate, Secondary.

2. The Kindergarten-Primary Certificate. (Valid in any public kindergarten or in the first grade of any elementary school of the state.)

- (a) The completion of the two-year kindergarten-primary curriculum.

3. The Elementary Teachers' Certificate. (Valid in the eight grades of the elementary schools.)

- (a) The completion of the two-year teachers' course.

4. The Junior High School Teachers' Certificate. (Valid in grades seven, eight, and nine when organized as intermediate schools.)

(a) The recommendation of the University to the County Board of Education upon the completion of the two-year elementary teachers' curriculum and thereafter of thirty additional semester hours of college or teachers' course work at least twenty-two semester hours of which must be in two of the following subjects: English, mathematics, French, Spanish, Latin, social sciences, physical sciences, biological sciences.

5. Elementary Special Certificate. (Valid for special subjects only in the eight grades of the elementary schools.)

(a) The completion of the three-year teachers' curriculum in preparation of elementary teachers in one of the following special fields: Household Arts, Manual and Fine Arts, Music, Physical Education.

6. Secondary Special Certificate. (Valid for the special subjects in high schools.)

(a) The completion of the four-year teachers' curriculum in preparation of secondary teachers of one of the following special types: Commerce, Household Arts, Manual and Fine Arts, Music, Physical Education.

## THE JUNIOR COLLEGE CURRICULA

As a guide to junior college students in the arrangement of their study lists the following requirements for junior standing in the various colleges of the University are presented:

NOTE.—For further information concerning the courses referred to in the following curricula reference should be made to the Announcement of Courses beginning on page 99 of this bulletin or (for courses not herein described) to the Announcement of Courses for 1921-22, published July, 1921; for sale by the Coöperative Book Store, Southern Branch, University of California, Los Angeles. Price, 25 cents.

### COLLEGE OF LETTERS AND SCIENCE

#### LOWER DIVISION

The work of the lower division comprises the studies of the freshman and sophomore years. The junior certificate marks the transition from the lower division to the upper division (junior-senior years).

The junior certificate in the College of Letters and Science will be required for admission to the upper division in and after August, 1921, of all candidates for the bachelor's degree except those who in August, 1920, had completed more than 12 units, or who in August, 1921, shall have completed more than 44 units in the lower division of the College of Letters and Science. It will be required of all students for admission to the upper division in and after January, 1922.

Students transferring from other colleges of the University of California or from other institutions will be required to meet substantially the junior certificate requirements, but will not be held strictly to the time distribution of requirements.

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

matics, and natural science. This makes his program more flexible, gives him a greater freedom of choice, and prepares him to pass more quickly into advanced work or into new fields of study. In no case, however, does the satisfaction of junior certificate requirements in the high school reduce the minimum amount of work required in the University for the junior certificate (60) or for the degree (124).

The degree requirements of 124 units is calculated on the basis that the student will normally take 64 units of work in the lower division including the prescribed work in military and physical education and 60 units in the upper division. However, the junior certificate will be granted on the completion of not less than 60 units of college work and the fulfillment of the following specific requirements:

(a) *General University Requirements.*

Subject A.\*

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. Each year of high school work in a foreign language will be counted in satisfaction of 3 units of this requirement. Courses given in English by a foreign language department will not be accepted in fulfillment of this requirement.

(c) *Mathematics.* Elementary Algebra and Geometry. These subjects are not regularly given in the University except in the Extension Division, but for the academic year 1921-22, a course covering these subjects may be organized for students who have not completed this requirement in the high school.

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

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

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

Astronomy 1, 2A-2B, 4, 5, 11.

Bacteriology 1.

Botany 1, 2A-2B.

Chemistry 1A-1B, 5, 6A-6B, 8.

Geography 1C, 2C.

Geology 1A, 1B, 6.

Mineralogy 1A-1B, 2AB.

Paleontology 1.

Physics 2A-2B, 3A-3B, or 3C-3D.

Zoology 1A-1B, 10.

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\* An examination in Subject A: English Composition is required of all intrants at the time of their first registration in the University. Date of next examination: Thursday, September 8, 1921, 2:30 p.m.

(e) *Additional.* At least 9 units (a year sequence plus enough to make at least 9 units) from one of the following groups and at least a year course in each of two others:

- (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:

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

*Group 1.—English and Public Speaking*

*Year Course:* English 1A-1B, 1X-1B.

Public Speaking 1A-1B.

*9-unit Option:* A year sequence plus 3 units from the following:

English 4A, B, C, D, E, or F, 51A, 51B, 52A, 52B, 53A, 53B.

Public Speaking 2A, 2B, 5A, 5B, 10A, 10B.

*Group 2.—Foreign Language*

*Year Course:* Celtic 1A-1B.

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

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

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

Italian: Any two consecutive courses of A, B, C, D, or any upper division year-sequence.

Latin: Any year-sequence from the following: C-D; LA-LB; 1, 5, 2, 6.

Oriental Languages: 3A-3B; 3C-3D; 9A-9B; or 9C-9D.

Sanskrit: 101A-101B.

Semitic Languages: 3A-3B.

Slavic Languages: 1A-1B; 6A-6B; 10A-10B or 14A-14B.

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



**9-unit Option:** 9 units selected from the courses offered in any department, except that courses given in English, or courses not requiring a study of the language or literature in the original will not be accepted. High School Latin may be used to satisfy this requirement in part or in whole, each year of High School Latin counting as 3 units.

*Group 3.—Mathematics*

**Year Course:** Any two consecutive courses of C, 5, 9, 3A-3B.

**9-unit Option:** Any 9 units selected from C, 5, 9, 3A, 3B, 4A, 4B. High school plane trigonometry (2e) and plane analytic geometry (2f) will each count for 2 units.

*Group 4.—History, Economics, Political Science*

**Year Course:** History 4A-4B; or 8A-8B.

Economics 1A-1B; or 10-11.

Political Science 1A-1B.

**9-unit Option:** A year sequence plus 3 units from the following:

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

Economics 1A-1B, 10, 11.

Political Science 1A-1B, 2.

*Group 5.—Philosophy*

**Year Course:** Philosophy 1A-1B; 3A-3B; or 4A-4B.

**9-unit Option:** A year course plus enough to make 9 units, selected from the following:

Philosophy 1A-1B, 3A-3B, 4A-4B.

**Credit by examination.** Provision will be made for the satisfaction of requirements (b) to (e) inclusive, by examination in lieu of the completion of the usual course requirements. Applicants for such examination must give notice of their intention to the Recorder of the Faculties and secure the authorization of the Executive Committee of the College of Letters and Science by written petition. Such authorization will not be given if the preparation for the examination be based on course instruction received at the University of California.

**Honorable mention with the junior certificate.** 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 upper division.

## UPPER DIVISION

In and after August, 1921, except as noted above under Lower Division, only those students who have been granted the junior certificate, signifying their completion of lower division requirements, will be registered in the upper division.

The degree of Bachelor of Arts will be granted upon the following conditions:

1. The total number of units in college courses in the lower and upper division offered for the degree must be *at least* 124.

2. To receive the A.B. degree in and after May, 1923, the student must attain at least as many grade points as units in all work undertaken in the University in or after August, 1921.

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

4. At least 36 units of work done in the upper division must be in upper division or graduate courses in the following departments or subjects:

Agriculture	Household Science, M
Anatomy, M	Hygiene (for major see Public Health curriculum)
Anthropology, M	Irrigation
Architecture	Italian, M
Astronomy, M	Jurisprudence (for major see School of Jurisprudence)
Bacteriology (in Department of Bacteriology and Experimental Pathology), M	Latin, M
Biochemistry (in Department of Biochemistry and Pharmacology), M	Library Practice
Botany, M	Mathematics, M
Celtic, M	Mechanical and Electrical Engineering
Chemistry, M	Medical Sciences (for major see School of Medicine)
Civil Engineering	Military Science
Engineering	Mining and Metallurgy
Drawing (in Department of Drawing and Art)	Music, M
Economics, M	Oriental Languages, M
Education, M	Philosophy, M
English, M	Physical Education for Men
French, M	Physical Education for Women
General Literature, M	Physics, M
Geological Science, M	Physiology, M
Geography, M	Political Science, M.
German, M	Psychology, M
Graphic Art (in Department of Drawing and Art), M	Public Speaking, M
Greek, M	Sanskrit, M
History, M	Semitic Languages, M
Household Art, M	Slavic Languages, M
	Spanish, M
	Zoology, M

Students may major in any of the departments the names of which are followed by the letter "M".

5. Candidates for graduation in May or December, 1922, must take at least 12 of the required upper division units in a single department exclusive of courses in Agriculture, Civil, Mechanical and Electrical Engineering, General Literature, Irrigation, Library Practice, Mining and Metallurgy. The choice of the 12 units must be approved by the department concerned.

6. Candidates for graduation in or after May, 1923, must complete a major of 24 upper division units according to the rules given below.

7. The final or senior year, including at least 24 units, must be taken in resident courses of instruction at this University. This work can most satisfactorily be done during the regular (not summer) sessions.

#### CANDIDACY FOR HONORS

The attention of juniors and seniors is called to the fact that the only requirement for registration as honors students is the formal approval of the department of their choice. Serious students who have done reasonably well in the lower division are strongly recommended to avail themselves of the advantages which they can derive as honors students from the personal guidance and supervision of the members of the department in which they choose to do their major work. In the College of Letters and Science, juniors and seniors who wish to register as honors students use a special form of study-list which may be obtained at the time of registration.

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

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

The several departments have full freedom in determining the most efficacious methods for the training of candidates for honors; but no student will be required to take more than 24 units of upper division

work in the department of his major. Departments may offer special honors courses in reading and research, with credit to be determined by the instructors in charge, according to the performance of the individual student, subject to such general restrictions as may be imposed by the department and by the Committee on Courses of Instruction. The work of the student in such an honors course may consist of additional work in connection with regular courses of instruction, or may be independent of such courses.

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

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

## COLLEGE OF COMMERCE

### UNDERGRADUATE CURRICULUM

The course leads to the degree of Bachelor of Science and is mainly devoted to elementary and technical studies as a broad preparation for business life. While some specialization is provided for in the senior year, those who wish to prepare for some particular commercial career are advised to extend their course beyond the usual four years. Courses have been outlined as a preparation for the work of the certified public accountant, of the actuary, for the consular service, for banking, for the real estate business, and for railroading. Graduation from this college requires the completion of 124 units of college credit (with 124 grade points), of which 64 units constitute the amount required in the University for the junior certificate.

The requirements for the junior certificate are as follows:

Subject A: English Composition. Examination required of all.\*

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—

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

Geography—

Geography 1A (Physical Geography) and Economics 3A (Commercial Geography) ..... 7

Natural Sciences ..... 9

Mathematics—

Mathematics B (Plane Geometry) ..... 3

Mathematics 1 (Advanced Algebra) ..... 3

Mathematics 2 (Mathematical Theory of Investment) 3

Economics—

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

Military Science, Physical Education, Hygiene ..... 9

Electives ..... 18

Total ..... 64 units

The course in science may be taken in high school. The course in algebraic theory must be studied in high school, as this subject is not offered in the University except during the summer sessions. The specified work in history, political science, geography, economics and in the mathematical theory of investment must be taken in college. Students are warned that the college courses are advanced in character, and they are earnestly advised to lay a solid foundation in high school for their college work.

#### COLLEGE OF AGRICULTURE†

The prospective student should consult the requirements and recommendations for matriculation, as stated on page 21. *Failure to take the proper subjects in high school may delay graduation.*

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

\* Date of next examination, Thursday, September 8, 1921, 2:30 p.m. For regulations governing this requirement see General Regulations of the Faculties.

† The statements on pages 43-46 refer to curricula in the College of Agriculture other than in Forest Utilization. For the curriculum in Forest Utilization, see page 47.

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE

(1) Four years of residence.

(2) One hundred and thirty semester units of university work (with 130 grade points), in addition to matriculation, and in addition to Subject A.\* These 130 units must be chosen in accordance with the provisions set forth hereinafter. Ordinarily at least 64 units will be completed during the freshman and sophomore years, 6 units during the six weeks summer practice course, and at least 60 units during the junior and senior years.

(3) Including work presented for matriculation,† all students must have completed—ordinarily before the end of the sophomore year—English, 12 units; mathematics, including trigonometry, 12 units; physics, 3 units; history or economics, 9 units. Students without credit for matriculation physics may take the equivalent course in the summer session; or they may take Physics 2A in the first half-year provided they have credit in trigonometry or are taking it concurrently. If the student has entered with two years each of English and mathematics and one year of history he must complete in the University, six units each of English, mathematics, and history or economics.

(4) A summer course in special work connected with the proposed major subject. This course is taken immediately before or immediately following the junior year, as may be arranged by the adviser in the major subject concerned. The course is six weeks in length; credit, 6 units. Information concerning the summer practice work may be obtained from the adviser. Students in certain major subjects may offer practical experience in lieu of the summer practice course, but no credit in units will be granted for the practice course in such cases. Such substitution must be approved by the major subject adviser.

(5) The following courses must be completed before graduation:

Botany 3 .....	½ year
Chemistry 1A-1B .....	1 year
‡Drawing C .....	½ year
Geology 1A .....	½ year
Hygiene .....	½ year
‡Mathematics C .....	½ year
Military Science .....	2 years
Physical Education .....	2 years
Zoology 1A .....	½ year

\* An examination in Subject A: English Composition is required of all undergraduate intrants at the time of their first registration in the University. Date of next examination, Thursday, September 8, 1921, 2:30 p.m. For further regulations concerning Subject A see General Regulations of the Faculties.

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

‡ Students with matriculation credit in these subjects are not required to complete these courses.

And two or more of the following four subjects, according to the requirements of the major subject chosen by the student:

Agricultural Chemistry 1 and 2 .....	½ year
Bacteriology 1 .....	½ year
Genetics 1 .....	½ year
Soil Technology 1 .....	½ year

(6) Among the 60 units of work normally taken in the junior and senior years there must be 36 units in upper division courses (i.e., those numbered 100 to 199), at least 26 units of which must be in the Department of Agriculture.

(7) Each student should select a major subject not later than the middle of the sophomore year. There are six major subjects in the College of Agriculture: agricultural science, agronomy, animal industries, forestry, horticulture, and landscape gardening. In each major subject certain prescribed courses will be required in addition to the general college requirements (Nos. 1-6) listed above. These are:

I. *Agricultural Science.* Agricultural Chemistry 1; Bacteriology 1; Botany 5; Genetics 1; at least one upper division course in botany, zoology, or chemistry, and a thesis or advanced course in an agricultural science.

II. *Agronomy.* Agricultural Chemistry 1 and 2; Bacteriology 1; Botany 5; Civil Engineering 1A or 1E; Genetics 1; Soil Technology 1; farm mechanics, 3 units; Farm Management 118; Irrigation Practice 120 (Irrigation 113 prerequisite); animal husbandry, 3 units; pomology, 3 units; agronomy, 7 units, including Agronomy 130. Recommended courses fulfilling the above options—Animal Husbandry 105 or 106; Pomology 101 or 103, Agronomy 106, 107, 120, Farm Mechanics 101 or 103, 104.

III. *Animal Industries.* Twenty-six units of upper division courses in animal husbandry, farm machinery, dairy industry, poultry husbandry, veterinary science (a thesis of four units may be included). At least two semesters residence at the University Farm.

IV. *Forestry.* Civil Engineering 1A-1B; 6 units of economics; Forestry 10, 20, 99A, 99B; 20 units in upper division forestry courses. For Forest Utilization, see Announcement of Courses in Forestry.

V. *Horticulture.* Farm Mechanics 101 or 103 and 104; Civil Engineering 1E; Entomology 124; Irrigation 113; Irrigation Practice 120; Plant Pathology 120; Pomology 101, 103. At least six units of economics, political science or rural institutions. At least two of the following courses: Citriculture 101; Olericulture 103 or 104; Pomology 106, 120; Viticulture 116; Landscape Gardening 101.

VI. *Landscape Gardening.* Drawing 3ABC; Soil Technology 1; Genetics 1; Civil Engineering 1E and 28 units upper division courses in landscape gardening, with thesis.

## FRESHMAN YEAR

During the freshman year, the following schedule will normally be followed; but for those who upon entrance to the University have definitely selected their major subject this programme may be modified with the approval of the major subject adviser. It is not necessary for students to choose the major subject in the freshman year, but they may do so.

## EXAMPLE OF PROGRAMME

FIRST HALF-YEAR	Units	SECOND HALF-YEAR	Units
Military Science 1A .....	1½	Military Science 1B .....	1½
Physical Education .....	½	Physical Education .....	½
Hygiene .....	1	Chemistry 1B .....	5
Chemistry 1A .....	5	Botany 8 .....	4
Zoology 1A .....	5	*Pomology 1 (Horticulture) .....	3
*Agronomy 1 or Animal Husbandry 1 .....	8	Optional .....	4
Optional .....	2		<hr style="width: 100px; margin-left: auto; margin-right: 0;"/>
	<hr style="width: 100px; margin-left: auto; margin-right: 0;"/>		18
	18		

## SOPHOMORE, JUNIOR, AND SENIOR YEARS

The schedule for the sophomore, junior and senior years is determined by the major subject requirements, as listed above, supplemented with optional courses selected by the student with the advice and consent of the major subject adviser.

## APPROVAL OF STUDY-LISTS AND THESES

The study-lists of freshmen and sophomores must bear the written approval of a member of the Lower Division Advisory Committee if the student has not yet chosen his major subject. If the major subject has been selected, study-lists must be initialed by the major subject adviser. Study-lists must then be countersigned by the Secretary of the College of Agriculture.

The study-lists of juniors and seniors must first be endorsed by the major subject adviser and then be countersigned by the Director of Resident Instruction of the College of Agriculture.

If thesis work is taken, it will be arranged with an instructor in the major subject. The student will submit his plan of thesis work to the Director of Resident Instruction at the beginning of the senior year, and upon approval by the Director, will file his thesis card with the secretary of the college. For further procedure follow the rules governing theses as stated in the Circular of Information.

\* Recommended, but not required for graduation.



AMOUNT OF WORK

Regular students who are free from deficiencies in their university work may register for not to exceed 18 units of new work. Regular students with deficiencies will be limited to 16 units, including repeated work. Students with deficiencies taking the prescribed courses in physical education, hygiene, or military science may, with the approval of the Study-Lists Committee, add these courses to the maxima as stated herein.

CURRICULUM IN FOREST UTILIZATION

Matriculation requirements are the same as for the curricula in engineering. See Admission to the University: Requirements and Recommendations for the various curricula.

Full details regarding the work in forestry are given in the Announcement of Courses in Forestry, which may be obtained from the Division of Forestry, University of California, Berkeley, California.

FRESHMAN YEAR

*Subject A .....	----	----
Mathematics 8A-8B, Differential Calculus .....	8	8
Physics 1A-1B, General .....	8	8
C. E. 1A-1B, Surveying .....	8	8
Chemistry 1A-1B .....	5	5
Military 1A-1B .....	1½	1½
Hygiene 1 .....	1	----
Physical Education 1A-1B, Gymnasium .....	½	½
C. E. 3 (S. S.), Surveying....	(8)	----
	(8)	----
	17	16

SOPHOMORE YEAR

Mathematics 4A-4B, Integral Calculus .....	8	8
Physics 4A-4B, General .....	8	8
Drawing 8D, Descriptive Geometry .....	8	----
Mechanics 8A, Shop Work (wood) .....	2	----
Mechanics 1, Steam Engineering .....	3	----
Electrical Engineering 1 .....	----	8
Forestry 10, Mensuration .....	----	3
Military 2A-2B .....	1½	1½
Physical Education 1C-1D, Gymnasium .....	½	½
Elective .....	2	8

18 17

Summer following sophomore year: Forestry 99A, 99B, Practice in Mensuration, Management, Grazing, Logging, and Sawmilling; 13 weeks. 10 units.

## COLLEGE OF MECHANICS

## UNDERGRADUATE CURRICULA

For matriculation requirements see Admission to the University: Requirements and Recommendations for the various curricula.

FRESHMAN YEAR			SOPHOMORE YEAR		
*Subject A .....	....	....	Mathematics 4A-4B .....	3	3
Mathematics 3A-3B .....	3	3	Mechanical Engineering 2 or		
Chemistry 1A-1B .....	5	5	Drawing 3D .....	3	....
Physics 1A-1B .....	3	3	Mechanics 6A .....	....	5
C. E. 1A-1B .....	3	3	Mechanical Engineering 1.....	3	....
Physical Education 1A-1B....	$\frac{1}{2}$	$\frac{1}{2}$	Electrical Engineering 1.....	....	3
Hygiene 1 .....	1	....	Physics 4A-4B .....	3	3
Military 1A-1B .....	$1\frac{1}{2}$	$1\frac{1}{2}$	Physical Education .....	$\frac{1}{2}$	$\frac{1}{2}$
M. E. 18 (S. S.) .....	(3)	†	Military 2A-2B .....	$1\frac{1}{2}$	$1\frac{1}{2}$
Elective .....	1	2	Mechanics 8A-9B .....	2	2‡
	18	18	Elective .....	2	....
				18	18

\* An examination in Subject A: English Composition is required of all undergraduate intrants at the time of their first registration in the University. Date of next examination, Thursday, September 8, 1921. 2:30 p.m. For further regulations concerning Subject A see General Regulations of the Faculties.

† Three units of the shop work requirement must be taken in Summer Session. (Six weeks, 4 days of 6 hours each; 144 hours.) Credit, 3 units.

‡ May be any two of 8A, 8B, 9A, 9B.

## COLLEGE OF MINING

NOTE.—Students in the College of Mining may elect one of four curricula: (1) Mining Engineering; (2) Metallurgy; (3) Economic Geology; and (4) Petroleum Engineering. Each is a four-year curriculum and leads to the degree of Bachelor of Science in mining with the completion of 147 units of work.

These four curricula have a common requirement for the first year, after which the student is expected to elect the one in which he wishes to specialize. In the second, third and fourth years, the courses listed at the beginning of the column are common requirements for all students in the College of Mining. In addition to these, each student is required to take the courses listed under his particular option.

FRESHMAN YEAR		<i>Mining</i>	
*Subject A .....	.....	Metallurgy 2 .....	8
Mathematics 8A-8B .....	3 3	Mining 1A-1B .....	3
Physics 1A-1B .....	3 3	Mechanics 1 .....	3
Chemistry 1A-1B .....	5 5		19 19
C. E. 1A-1B .....	3 3		
Physical Education 1A-1B ....	$\frac{1}{2}$ $\frac{1}{2}$		
Mining 5 .....	2		
Hygiene 1 .....	1		
Military 1A-1B .....	1 $\frac{1}{2}$ 1 $\frac{1}{2}$		
C. E. 8A (S. S.) .....	(3)		
	17 18		
SOPHOMORE YEAR		<i>Metallurgy</i>	
Mathematics 4A-4B .....	3 3	Chemistry 6A, Metallurgy 2 ..	3 3
Physics 4A-4B .....	3 3	Mechanics 1 .....	3
Mineralogy 1A, 1B .....	2 2		19 19
Mineralogy 2AB .....	3		
Drawing 3D or			
Mechanics 2 .....	3		
Geology 1A .....	3		
Physical Education 10-1D....	$\frac{1}{2}$ $\frac{1}{2}$		
Military 2A-2B .....	1 $\frac{1}{2}$ 1 $\frac{1}{2}$		
		<i>Economic Geology</i>	
		Chemistry 6A-6B .....	3 3
		Paleontology 1 .....	3
			19 19
		<i>Petroleum Engineering</i>	
		Chemistry 5 .....	3
		Chemistry 8 .....	3
		Chemistry 9 .....	3
			19 19

\* An examination in Subject A: English Composition is required of all undergraduate intrants at the time of their first registration in the University. Date of next examination, Thursday, September 8, 1921, 2:30 p.m. For further regulations concerning Subject A see General Regulations of the Faculties.

## COLLEGE OF CIVIL ENGINEERING

## UNDERGRADUATE CURRICULA

For matriculation requirements see Admission to the University: Requirements and Recommendations for the various curricula.

FRESHMAN		SOPHOMORE	
*Subject A .....	----	Mathematics 4A-4B .....	3 3
Mathematics 3A-3B .....	3 3	Physics 4A-4B .....	3 3
Physics 1A-1B .....	3 3	Drawing 3D or	
Chemistry 1A-1B .....	5 5	Mechanics 2 .....	3
C. E. 1A-1B .....	3 3	Astronomy 3 .....	1
Physical Education 1A-1B....	$\frac{1}{2}$ $\frac{1}{2}$	C. E. 8 .....	2
Hygiene 1 .....	1	Physical Education 1C-1D....	$\frac{1}{2}$ $\frac{1}{2}$
Military 1A-1B .....	1 $\frac{1}{2}$ 1 $\frac{1}{2}$	Military 2A-2B .....	1 $\frac{1}{2}$ 1 $\frac{1}{2}$
C. E. 3 (S. S.) .....	(3)	Geology 1A .....	3
Elective .....	2		
	<hr/>		
	17 18		
		<i>Railroad and Irrigation</i>	
		Mechanics 1 .....	3
		Mineralogy 1A-1B, or	
		Mechanics 8A-8B, or	†
		Mechanics 9A-9B,	2 2
		Mechanics 6A	
		Elective .....	5
			<hr/>
			19 18
		<i>Sanitary and Municipal</i>	
		Chemistry 8 .....	3
		C. E. 25 .....	2
		Bacteriology 1 .....	4
		Elective .....	3
			<hr/>
			19 18

## COLLEGE OF CHEMISTRY

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

\* An examination in Subject A: English Composition is required of all undergraduate intrants at the time of their first registration in the University. Date of next examination, Thursday, September 8, 1921, 2:30 p.m. For further regulations concerning Subject A see General Regulations of the Faculties.

† Any four units in this group may be elected.

the equivalents of high school physics and chemistry are given in the University during the summer session only, not during the fall or spring sessions.

**Electives.**—The total number of units required for graduation is 136 (with 136 grade points). Of the elective units, 35 must be approved electives in chemistry or allied subjects; the remainder are free electives, but may not include the preparatory subjects listed above.

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

**Honors Students.**—Students who in the first two years of their college work have received the grade of A or B in 48 units of accepted courses will receive honorable mention with junior standing. These students are entitled and urged to enter as candidates for honors. The Committee on Candidates for Honors of the College of Chemistry will determine what students shall remain in the honors group and what students shall be promoted thereto. Candidates who, in the judgment of the faculty, display marked superiority in scholarship receive the special distinction of highest honors. The list of students upon whom honors, and highest honors, are conferred, with mention of their major department, appears in the annual Commencement Programme. Further information for honors students will be found in the Announcement of Courses.

## FRESHMAN

*Subject A .....	.....	.....
Mathematics 8A-8B .....	3	3
Physics 1A-1B .....	3	3
Chemistry 1A-1B .....	5	5
German A <sup>1</sup> -B <sup>2</sup> .....	3	3
Military 1A-1B .....	1½	1½
Physical Education 1A-1B....	½	½
Hygiene 1 .....	1	.....
Elective .....	.....	2
	<hr/>	
	17	18

## SOPHOMORE

Mathematics 4A-4B .....	3	3
Physics 4A-4B .....	3	3
Chemistry 6A-6B .....	3	3
Chemistry 8 .....	3	.....
Chemistry 9, 100 .....	3	3
Chemistry 110 .....	.....	3
Military 2A-2B .....	1½	1½
Physical Education 1C-1D....	½	½
	<hr/>	<hr/>
	17	17

**Courses in Chemical Technology:** Students in the College of Chemistry who wish to specialize in Chemical Technology must take all the prescribed courses in the College of Chemistry and will be expected to include in their electives for their freshman year Mechanics 8B.

\* An examination in Subject A: English Composition is required of all undergraduate intrants at the time of their first registration in the University. Date of next examination, Thursday, September 8, 1921, 2:30 p.m. For further regulations concerning Subject A see General Regulations of the Faculties.

## CURRICULUM FOR NURSES

In November, 1917, the Academic Senate established a curriculum for the training of nurses and appointed a committee to administer the curriculum. The curriculum is designed to meet the need for scientifically trained women to fill administrative and teaching positions in schools of nursing and to go into the many branches of public health work.

This course leads to the B.S. degree and a certificate in nursing. The first two and a half years† are spent in the departments at Berkeley, then two years at the University Hospital School of Nursing in San Francisco, and the final half-year again in the departments at Berkeley.

The course as prescribed by the University of California follows:

## COURSE FOR THE FIRST TWO AND ONE-HALF YEARS AT THE UNIVERSITY

Required: matriculation in the College of Letters and Science, including high school chemistry and either trigonometry or physics.

A minimum programme of 80 units must be completed in the first two and a half years. The Junior Certificate requirement in the College of Letters and Science must be met at the end of two years, during which period the student's study card is subject to the approval of that college. The following special subjects must be included in the work of the first two and a half years:

	Units
Chemistry (1A-1B) .....	10
Anatomy (102) .....	4
Bacteriology (1) .....	4
Dietetics (Household Science 102) .....	4
Hygiene (2 and 3) .....	5
Physiology 1 .....	4
Zoology (1A) .....	5
Economics (1A-1B; 180-181) .....	12
Psychology 2A (General Psychology) .....	3

Students in this curriculum should plan to spend ten weeks of their preparatory period at the University Hospital during the summer vacation following their first year at the University. This will not only afford the student an opportunity to learn whether she cares to continue the study of nursing and for what particular branch of nursing she wishes to prepare, but it will enable the faculty to judge of her qualifications for the profession of nursing.

† Students entering this curriculum may find it necessary to remain for three years in the departments at Berkeley in order to complete the special requirements as well as the requirements for the Junior Certificate. Such students will complete a minimum programme of 90 units (including 18 upper division units) in the departments at Berkeley and will receive the bachelor's degree after completing the additional years at the School of Nursing.

## SCHOOL OF ARCHITECTURE

The requirements for admission to the technical course in architecture are junior standing (64 units) in the College of Letters and Science and the following specific courses at the University. The matriculation requirements are set forth in earlier pages of this circular. If the course is to be completed in six years these courses must be completed in the lower division: Mathematics 3A-3B, 4A-4B; Graphic Art 14 (two semesters), 127; Drawing 3A, 3B, 3C; Physics 1A-1B; Civil Engineering 8; Architecture 5A-5B, 11, 12A-12B, 13A-13B.

NOTE.—Students who do not wish to follow the technical curriculum in architecture may choose architecture as a major subject in the College of Letters and Science.

THIRD YEAR			FIRST GRADUATE YEAR		
	1st half- year Units	2nd half- year Units		1st half- year Units	2nd half- year Units
Architecture 101A-101B .....	8	8	Architecture 203A-203B .....	4	4
Architecture 5A-5B .....	1	1	Architecture 206E-206F .....	1	1
Architecture 105A-105B .....	1	1	Architecture 299A-299B .....	2	2
Architecture 106A-106B .....	1	1	Architecture 209A-209B .....	2	2
Architecture 12A-12B .....	1	1	Civil Engineering 1A .....	3	---
Architecture 18A .....	1	---	Civil Engineering 116 .....	---	1
Architecture 14A-14B .....	1	1	Elective .....	2 or 3	2 or 3
Drawing 110 .....	2	---		2	3
Civil Engineering 117 .....	---	3		12	18
Civil Engineering 118A-118B	3	3			
Graphic Art 128A-128B .....	2	2			
	16	16			
FOURTH YEAR			SECOND GRADUATE YEAR		
Architecture 102A-102B .....	4	4	Architecture 204 .....	6	---
Architecture 5E-5F .....	1	1	Architecture 216 .....	---	8
Architecture 105E-105F .....	1	1	Electives .....	6	4
Architecture 106C-106D .....	1	1		12	12
Architecture 12A-12B .....	1	1			
Architecture 14A-14B .....	1	1			
Architecture 108A-108B .....	3	3			
Civil Engineering 107E-107F	3	3			
Civil Engineering 108F .....	---	1			
	15	16			

The foregoing curriculum leads to the Degree of Bachelor of Arts at the end of the fourth year of undergraduate work, and to the degree of Graduate in Architecture at the end of the second graduate year.

The requirement for entrance to the School of Architecture (as distinguished from the Department of Architecture) is the A.B. degree with a major in architecture or the equivalent of this. The degree of Graduate in Architecture is conferred upon students in the School of

Architecture who shall have remained in residence at least one year after obtaining the A.B. degree and who shall have satisfactorily completed the following courses of study:

Architecture 5ABCDEF, 11, 12AB (six half-years), 13AB (three half-years), 14AB (four half-years), 101AB, 102AB, 105CDEF, 106ABCD, 108AB, 203AB, 206EF, 299AB, 209AB, 204, 216.

Civil Engineering 1A, 8, 107EF, 108F, 116, 117, 118AB.

Drawing 3ABC, 110; Graphic Art 14, 127, 128AB.

Electives.

To obtain the degree of Graduate in Architecture in the shortest possible time, students will find it necessary to anticipate the required studies as much as possible before obtaining the A.B. degree.

The division of the classes in architectural design is based upon a system of progressive values, instead of half-years, as follows:

Stage I—(Architecture 101A, Elementary Design) 3 projects during the half-year:

First Grade .....	12 values
Second Grade .....	8
Third Grade .....	4
Fourth Grade .....	0

Esquisse-Esquisse (3 required each half-year out of 8 programmes):

First Grade .....	12 values
Second Grade .....	2
24 values required.	

Stage II—(Architecture 101B, Elementary Design) 3 projects during the half-year:

First Grade .....	12 values
Second Grade .....	8
Third Grade .....	4
Fourth Grade .....	0

Esquisse-Esquisse (3 required each half-year out of 8 programmes):

First Grade .....	4 values
Second Grade .....	2
24 values required.	

Stage III—(Architecture 102A-102B) 3 projects each half-year:

First Grade .....	12 values
Second Grade .....	8
Third Grade .....	4
Fourth Grade .....	0



Esquisse-Esquisse (3 required each half-year out of 8 programmes):

First Grade .....	4 values
Second Grade .....	3

48 values required.

Stage IV—(Architecture 203A-203B Planning and Composition) 3 projets each half-year:

First Grade .....	12 values
Second Grade .....	8
Third Grade .....	4
Fourth Grade .....	0

Esquisse-Esquisse (3 required each half-year out of 8 programmes):

First Grade .....	4 values
Second Grade .....	2

48 values required.

Stage V—(Architecture 204, Advanced Design) 3 projets during the half-year):

First Grade .....	12 values
Second Grade .....	8
Third Grade .....	4
Fourth Grade .....	0

Esquisse-Esquisse (3 required each half-year out of 8 programmes):

First Grade .....	4 values
Second Grade .....	2

24 values required.

Total 168 values required.

No student may count, toward his total values, more than 4 values on Esquisse-Esquisse each half-year. No excess values in a given stage may be applied to credit in a higher stage. In stages IV and V a medal may be granted for a specially fine projet, but no additional value is attached thereto. Projets which are handed in late receive the grade next below their rank.

Students who have fulfilled all other requirements of the curriculum of the School of Architecture are eligible to begin the thesis for the degree of Graduate in Architecture on, and only on, the completion of one hundred and sixty-eight values, regardless of the time covered, provided that the minimum time is two and one-half years after having completed the requisite preparatory work for Architecture 101.

Students may begin the thesis and seminar required for the degree of Graduate in Architecture upon the completion of one hundred and sixty-eight values (with above minimum proviso), whether it be at the end of a half-year or not, and present the work at the end of a time equal to a regular half-year.

## SCHOOL OF EDUCATION

The term "School of Education" designates the professional courses intended:

1. For students preparing to become teachers in secondary schools and colleges;
2. For graduates of normal schools, who are making further preparation for teaching in elementary schools;
3. For students preparing to engage in school administration or to teach in normal schools or in university departments of education or to carry on research in the field of education.

*Admission.*—To be admitted to the School of Education students must have junior standing and must normally have completed the requirements for the Junior Certificate.

*Length of Professional Courses.*—The minimum time requirement for the recommendation for the regular high school certificate is three years; for the higher professional degree, four years. Seniors and graduates applying for admission to the School of Education will be credited with one or two years respectively, subject to the foregoing requirements. For certain exemptions see the regulations of the State Board.

For further information concerning the School of Education see the annual announcement of the school, to be obtained from the Recorder of the Faculties.

## SCHOOL OF JURISPRUDENCE

The following persons will be admitted without examination, as candidates for the degree of Juris Doctor:

A. To the Three-year Curriculum:

- (1) Graduates of any college of the University of California, and of other colleges and universities of approved grade;
- (2) Students of the University of California who have attained at least senior standing in the College of Letters and Science or in the College of Commerce.

B. To the Four-year Curriculum:

Students eligible to the Three-year Curriculum and students of the University of California who have attained at least junior standing in the College of Letters and Science or in the College of Commerce.

For further information see the annual announcement of the school, to be obtained from the Recorder of the Faculties.

## MEDICAL SCHOOL

*Matriculation.*—For matriculation in the Medical School—the five years' course leading to M.D.—in and after 1922 the student must have attained senior standing in the College of Letters and Science.\*

For those who enter the Medical School in or after August, 1923, senior standing in the College of Letters and Science requires the attainment of the junior certificate (see this circular, under College of Letters and Science), and the subsequent completion of at least 27 units of work of which 18 shall normally be in upper division courses. The total number of college units presented must be at least 94. On the completion of the first year's work in the Medical School, the degree of A.B., College of Letters and Science, will be granted.

In addition to the above general requirements, the student must give evidence of sufficient training in physics, chemistry, biology, English literature and composition to enable him to pursue with profit the curriculum of the school and must possess a reading knowledge of French or German. The following courses now offered represent the minimum of satisfactory preparation in the subjects named (numbers refer to the Announcement of Courses for 1920-21): English 1A-1B (6 units); Chemistry 1A-1B, 8, 9; Physics 2A-2B and 3A-3B; Zoology 1A-1B. Ten units credit in French or German will be accepted as fulfilling the requirement of a reading knowledge in these subjects.

By a resolution of the Academic Senate the faculty of the Medical School is authorized to refuse admission to applicants with a low record in the required academic subjects.

*The State law governing the practice of medicine* in California prescribes that every person before practicing medicine or surgery must produce satisfactory testimonials of good moral character and a diploma issued by some legally chartered medical school, the requirements of which shall have been at the time of granting such diploma in no particular less than those prescribed by the laws of the State, and which shall have received the approval of the Board of Medical Examiners that year. The requirements for matriculation in the University of California Medical School as above stated cover also the requirements of the Association of American Medical Colleges, provided that the high school programme includes the subjects listed in the following paragraphs.

\* NOTE.—Students who enter the Medical School in August, 1922, will be matriculated with the above requirements or may present at least 94 units of work in the College of Letters and Science, including normally 18 units of upper division work taken in the third year, according to the plan outlined in the 1919-20 Circular of Information, pages 54-56 under caption *Premedical Curricula*. On completion of the first year's work in the Medical School the degree of A.B., College of Letters and Science, will be granted.

Students entering the Medical School in August, 1921, may follow the 94-unit plan, receiving the A.B. on the completion of the first year's work in the Medical School, or the 64-unit plan (see 1919-20 Circular of Information, pages 53-56), omitting the bachelor's degree.

## PREMEDICAL CURRICULUM—THREE YEARS

The following tabulated curriculum represents the most satisfactory arrangement of work to meet the medical prerequisite courses, as prescribed for those entering the Medical School in or after August, 1923. The student should, however, make certain that his course is so arranged as to satisfy the junior certificate and other requirements of the College of Letters and Science so that his entrance to the Medical School and the attainment of his A.B. and M.D. may not be delayed. Certain variations in the chronological arrangement may be necessitated if the high school course include the minimum of foreign language work.

This curriculum assumes the completion of the following subjects in the high school: English, three years; history, one year; mathematics, two years (algebra and plane geometry); chemistry, one year; physics, one year; foreign language (French or German), 2 years. The junior certificate requirements will be more easily met if foreign language study has been pursued four years in the high school.

## MEDICAL SCHOOL—PREMEDICAL CURRICULUM

	FIRST YEAR		Total units
	Units first-half	Units second-half	
*Subject A (examination in English expression).....	.....	.....	.....
Military Training .....	1½	1½	
Physical Education .....	½	½	
Hygiene Lectures .....	2 or 1	.....	
General Inorganic Chemistry and Qualitative Analysis, with laboratory (Chemistry 1A-1B).....	5	5	
English 1A-1B .....	3	3	
Electives .....	4 or 5	6	
	16	16	32
	SECOND YEAR		
Military Training .....	1½	1½	
Physical Education .....	½	½	
Elements of Organic Chemistry (8) .....	3	.....	
Elements of Organic Chemistry laboratory (9)....	3	.....	
General Zoology, including Embryology (1A-1B).....	5	5	
Electives .....	3	9	
	16	16	32
	THIRD YEAR		
General Physics 2A-2B .....	3	3	
Physics 3A-3B physical measurement laboratory.....	1	1	
Electives .....	11	10	
	15	15	30
			94

\* An examination in Subject A: English Composition is required of all intrants at the time of their first registration in the University. Date of next examination: Thursday, September 8, 1921, 2:30 p.m. For further regulations concerning Subject A see General Regulations of the Faculties.

In order to exhibit the distribution of the time between laboratory and class exercises, the following table will be found useful:

	"Hours" per week (50 minute periods)		Credit in semester units
	Recitation or lecture	Laboratory	
Chemistry 1A .....	3	6	5
Chemistry 1B .....	3	6	5
Chemistry 8 .....	3	----	3
Chemistry 9 .....	----	8	3
Physics 2A .....	3	----	3
Physics 2B .....	3	----	3
Physics 3A-3B .....	----	6	2
Zoology 1A-1B .....	3	6	5
Hygiene 2 .....	2 (women)	----	2 (women)
Hygiene 1 .....	1 (men)	----	1 (men)
Military 1A .....	1	2	1½
Military 1B .....	1	2	1½
Military 2A .....	1	2	1½
Military 2B .....	1	2	1½
Physical Education A .....	----	2	½
Physical Education B .....	----	2	½
Physical Education C .....	----	2	½
Physical Education D .....	----	2	½
English 1A .....	3	----	3
English 1B .....	3	----	3
*Foreign Language .....	10	----	10
Subject A: examination in English expression .....	----	----	0
	----	----	----

#### MEDICAL CURRICULUM—FIVE YEARS

In the fifth or intern year the student is required to act as intern in an approved hospital or as special worker in a department of the Medical School. By arrangement with the department concerned this may be done at any time after the completion of the first year and a half of medical work.

For further information see the annual announcement of the Medical School, to be obtained from the Secretary of the Medical School, Parnassus and Third avenues, San Francisco.

#### THE JUNIOR AND SENIOR YEARS

For information concerning the work of the Junior and Senior years in the various schools and colleges of the University address the Recorder of the Faculties, University of California, Berkeley, California, indicating the particular school or college in which you are interested.

\* See requirements for the Junior Certificate, College of Letters and Science.

## TEACHERS' CURRICULA

- |                                 |                            |
|---------------------------------|----------------------------|
| I. Kindergarten-Primary Course. | V. Commerce Course.        |
| II. Elementary Course.          | VI. Home Economics Course. |
| III. Junior High School Course. | VII. Mechanic Arts Course. |
| IV. Art Course.                 | VIII. Music Course.        |
| IX. Physical Education Course.  |                            |

## I

## KINDERGARTEN-PRIMARY COURSE

## TWO-YEAR COURSE LEADING TO THE KINDERGARTEN-PRIMARY CERTIFICATE

NOTE.—For admission to the Kindergarten-Primary course the applicant must show ability to play simple melodies, songs and marches upon the piano.

	Units
Education L2A (Introductory Educational Psychology) .....	3
Education L2B (Genetic Psychology) .....	3
Education LX (Psychology of Study) .....	1
Education E12 (Elementary Administration and School Law) .....	3
Education E1 (Introductory Kindergarten-Primary Education) .....	3
Education E2 (Kindergarten-Primary Curricula and Methods) .....	3
Education E13 (Kindergarten-Primary Practices, Standards, Goals and Measurements) .....	3
Education E16 (History of Kindergarten-Primary Education) .....	3
Teaching K-P 10A and 10B (Kindergarten-Primary Teaching) .....	10
Art E20A-E20B (Structural Design and History of Industrial Arts) ....	6
English L1A or L1B (Oral and Written Composition) .....	3
English E10A (Primary Reading) .....	3
English E15A (Children's Literature) .....	3
Biology E12 (Nature Study) .....	3
Commerce E18A (Penmanship) .....	2
History E11 (Primary History: Materials and Methods) .....	2
Mathematics E10A (Primary Number) .....	3
Music E10A (Kindergarten-Primary Music) .....	2
Physical Education E12A-E12B (Kindergarten-Primary Plays and Games) .....	4
Recreation .....	2
Assemblies .....	1
Electives .....	3
Total .....	68½

KINDERGARTEN-PRIMARY COURSE

(Suggested Schedule)

FRESHMAN YEAR

I		II	
	Units		Units
Art E20A .....	3	Art E20B .....	3
Education E1 .....	3	Biology E12 .....	3
Education L2A .....	3	English L1A .....	3
Education LX .....	1	English E10A .....	3
History E11 .....	2	Mathematics E10A .....	3
Music E10A .....	2	Physical Education E12B .....	2
Physical Education E12A .....	2	Recreation .....	$\frac{1}{2}$
Recreation .....	$\frac{1}{2}$		
	<hr/>	Total .....	<hr/>
Total .....	16 $\frac{1}{2}$		17 $\frac{1}{2}$

SOPHOMORE YEAR

I		II	
	Units		Units
Education E12 .....	3	Education E2 .....	3
Education E16 .....	3	Education E18 .....	3
English E15A .....	3	Teaching K-P, 10A and 10B .....	10
Education L2B .....	3	Assemblies .....	$\frac{1}{2}$
Commerce E18A .....	2	Recreation .....	$\frac{1}{2}$
Electives .....	3		
Recreation .....	$\frac{1}{2}$	Total .....	<hr/>
	<hr/>		17
Total .....	17 $\frac{1}{2}$		

## II

**ELEMENTARY COURSE****TWO-YEAR COURSE LEADING TO ELEMENTARY CERTIFICATE**

NOTE.—A term-hour or unit represents one period per week, for one semester of eighteen weeks. For obtaining the Elementary Certificate, 70 units distributed as follows, are required:

	Units
Biology E10 (Physiology) or E12 (Nature Study) .....	3
Commerce L1A (Principles of Economics) .....	3
Education E11 (Methods of Teaching) .....	3
Education E12 (Elementary Administration) .....	3
Education E25 (Educational Sociology) .....	3
English L1A (Advanced Composition) .....	3
English E10 (Teaching of English) or E10B (Reading) .....	3
Geography L1A (Fundamentals of Geography) .....	3
History L7A or L7B (History of the United States) .....	3
Mathematics E10 (Teaching of Arithmetic) .....	3
Commerce E18A (Penmanship) .....	2
Physical Education E10 and E11 .....	4
Political Science L8 (The Government of the United States) .....	3
Education L2A (Introductory Psychology) .....	3
Education L2B (Genetic Psychology) .....	3
Teaching 10A .....	5
Teaching 10B .....	5
Group Z .....	6
Art .....	2 (or more)
Agriculture .....	2 (or more)
Home Economics .....	2 (or more)
Industrial Arts .....	2 (or more)
Music .....	2 (or more)
Physical Education .....	2 (or more)
Education LX (Psychology of Study: first term in attendance) .....	1
Assemblies (last term in attendance: five meetings) .....	½
Recreation (2 hours per term, ½ unit credit) .....	2
Electives .....	5½
<b>Total</b> .....	<b>70</b>



ELEMENTARY COURSE

(Suggested Schedule)

FRESHMAN YEAR

I		II	
	Units		Units
English L1A .....	3	*Biology E10 or E12 .....	3
Commerce L1A .....	3	*English E10 or E10B .....	3
Education LX .....	1	Mathematics E10 .....	3
*Geography L1A .....	3	Physical Education E11 .....	2
Commerce E18A .....	2	Political Science L8 .....	3
Physical Education E10 .....	2	Education E11 .....	3
Education L2A .....	3	Recreation .....	$\frac{1}{2}$
Recreation .....	$\frac{1}{2}$		
	<hr/>	Total .....	<hr/>
Total .....	17 $\frac{1}{2}$		17 $\frac{1}{2}$

SOPHOMORE YEAR

I		II	
	Units		Units
Education L2B .....	3	Education E25 .....	3
History L7A or L7B .....	3	Education E12 .....	3
Teaching 10A .....	5	Teaching 10B .....	5
Recreation .....	$\frac{1}{2}$	Assemblies .....	$\frac{1}{2}$
†Electives from Z Group .....	4	Recreation .....	$\frac{1}{2}$
Electives .....	2	Electives from Z group .....	2
	<hr/>	Electives .....	<hr/>
Total .....	17 $\frac{1}{2}$	Total .....	17 $\frac{1}{2}$

\* Courses thus prefixed are alternative, due regard being had for prerequisites.

† Group Z—6 units must be taken:

Art .....	2	Industrial Arts .....	2
Biology .....	2	Music .....	2
Home Economics .....	2	Physical Education .....	2

## III

## JUNIOR HIGH SCHOOL COURSE

Graduates of the Elementary Course or of Junior Colleges will be certified to the County Boards of Education for their Junior High School Certificate upon meeting the following requirements:

1. The completion of a third year of work of college grade consisting of 32½ semester hours.

2. The completion, by the end of the third year, of two academic majors of 22 units each—at least 10 of these units to be of college grade.

3. The completion of 26 units of professional work to be distributed as follows:

	Units
(1) Education L2A (Introductory Psychology) .....	3
(2) Education L25 (Educational Sociology) .....	3
(3) Education E59 (Junior High School Methods) .....	3
(4) Education E65 (School Administration) .....	3
(5) A 2-unit Teachers' Course for each of two majors elected* .....	4
(6) Practice Teaching J11A and J11B .....	10

4. The completion of 6 units of elective work to be chosen with the advice and upon the consent of the adviser, the latter to be guided by the student's needs.

## JUNIOR HIGH SCHOOL COURSE

## (Suggested Schedule)

JUNIOR YEAR			
I	Units	II	Units
Education L2A (Introductory Psychology) or Elective .....	3	Education E25 (Educational Sociology) or Elective .....	3
Education E59 (Junior High School Methods) .....	3	Practice Teaching J11B or Elective .....	5
Education E65 (School Administration) .....	3	*Teachers' Course in Elected Major .....	2
Practice Teaching J11A or Elective .....	5	Electives .....	6
*Teachers' Course in Elected Major .....	2	Assembly .....	½
	<hr/>		<hr/>
Total .....	16		16½

† Group Z—6 units must be taken.

\* Teachers' courses for junior high school majors must be elected from the following group of courses:

Education E68. General Science for Junior High School.  
 English E61. Junior High School English.  
 History E60. Social Sciences for Junior High School.  
 Mathematics E62. Junior High School Mathematics.  
 Romance Languages (as prescribed by department).

## IV

**ART COURSES**

The department of Art offers four lines of work, any one of which may be of major interest in a four years' professional course leading to certification.

A. Fine Arts Education.

B. Industrial Arts Education.

C. Drawing, Painting, and Illustration.

D. House Design and Furnishing.

A three-year course in A, B, C, or D leads to an elementary certificate.

A four-year course in A or B leads to a secondary certificate.

**REQUIRED COURSES**

The following courses are required of all who specialize in Art: Design 2A, 2B, 32A; Drawing and Painting 4B; Art Appreciation and History 1A, 1B.

**A. Fine Arts Education.**

General courses: Psychology and Education (12); Physical Education (4); Theory and Practice of Teaching (24); Assemblies ( $\frac{1}{2}$ ); free electives or general subjects leading to certification (45).

Technical courses: Art 1A, 1B, 2A, 2B, 3, 4A, 4B, 5, 8A, 8B, 12A, 16B, 32A, 34A, 34B, 57A, 57B, 62, 69, 75A, 83A.

Fourth year: Students working for secondary certificate elect 18 units from the following: 52A, 56, 57B, 58B, 75B, 81, 84A, 84B, 93.

**B. Industrial Arts Education.**

General courses: Same as Fine Arts Education.

Technical courses: Art 1A, 1B, 2A, 2B, 4A, 4B, 8A, 9, 12A, 19A, 19B, 29A, 29B, 32A, 32B, 39A, 49, 58A, 69A, 79A.

Fourth year: Students working for a secondary certificate elect 18 units from the following: 8B, 39B, 52A, 58B, 69B, 79B, 81, 89A, 98.

**C. Drawing, Painting, and Illustration.**

Students working for certification are required to take 53 units of the following technical courses and 50 $\frac{1}{2}$  general subjects.

Technical courses: Art 1A, 1B, 2A, 2B, 3, 4A, 4B, 5, 8A, 8B, 12A, 12B, 16B, 32B, 34A, 34B, 38A, 44, 52A, 52B, 56, 57A, 57B, 62, 68, 75A, 75B, 77A, 77B, 81, 83A, 83B, 84A, 84B, 86A, 86B, 93.

**D. House Design and Decoration.**

Students working for certification are required to take 53 units of the following technical courses and 50 $\frac{1}{2}$  general subjects.

Technical courses: Art 1A, 1B, 2A, 2B, 4A, 4B, 8A, 8B, 12A, 12B, 16A, 16B, 19A, 19B, 29A, 32A, 32B, 39A, 39B, 52A, 52B, 56, 57A, 57B, 58A, 58B, 68, 77A, 81, 84A, 84B, 86A, 86B.

## ART EDUCATION COURSE

## (Suggested Schedule)

## FRESHMAN YEAR

I		II	
	Units		Units
Art L1A (Art Appreciation and History) .....	2	Art L1B (Art Appreciation and History) .....	2
Art L2A (Design) .....	2	Art L2B (Structural Design) .....	2
Education LX (Psychology of Study) .....	1	Education L2B (Genetic Psychology) .....	3
Art L4A (Freehand Drawing) .....	2	Art E3 (Costume Appreciation) ....	2
Art E8A (Stage Craft) .....	2	Art E16B (House Furnishing) ....	2
Art L12A (Lettering) .....	2	Art L4B (Freehand Drawing) .....	2
Education L2A (Introductory Psychology) .....	3	Electives .....	3
Electives .....	2	Recreation .....	$\frac{1}{2}$
Recreation .....	$\frac{1}{2}$	Total .....	16 $\frac{1}{2}$
Total .....	16 $\frac{1}{2}$		

## SOPHOMORE YEAR

I		II	
	Units		Units
Art L84A (Drawing) .....	2	Art E5 (Illustration) .....	2
Art E8B (Stage Craft) .....	2	Art E30B (Theory and Practice Teaching) .....	5
Art E57A (Sketching, Landscape) ..	2	Art L84B (Drawing) .....	2
Art E30A (Theory and Practice Teaching) .....	5	Physical Education E11 .....	2
Physical Education E10 .....	2	English L1A (English Composition) 3	
Education E11 (Methods of Teaching) .....	3	Recreation .....	$\frac{1}{2}$
Recreation .....	$\frac{1}{2}$	Electives .....	2
Total .....	16 $\frac{1}{2}$	Total .....	16 $\frac{1}{2}$

## JUNIOR YEAR

I		II	
	Units		Units
Art 83A (Costume Design) .....	2	Art E75A (Illustration) .....	2
Art E68 (Stage Craft) .....	2	Education E25 (Educational Sociology) .....	3
Art L82A (Industrial Design) .....	2	History L81 (The Renaissance) ....	3
Art E58A (Textile Decoration) ....	2	Practice Teaching A10 .....	5
Art L62 (Posters) .....	2	English L4B (Public Speaking) ....	3
History E1A (History of the United States) .....	3	Total .....	16
English L4A (Public Speaking) ....	3		
Total .....	16		

## SENIOR YEAR

I	Units	II	Units
Art L81 (Art Appreciation and History) or		Art E57B (Landscape, Sketching) or	
Art L52A (Imaginative Design) or		Art E75B (Advanced Illustration) or	
Art E98 (Fashion Drawing) or		Art E84B (Drawing and Figure) or	
Art L84A (Drawing and Figure) or		Art E58B (Textile Decoration) in the amount of .....	6
Art E56 (Furniture) in the amount of .....	6	Art E80B (Theory and Practice Teaching) .....	5
Art E80A (Theory and Practice Teaching) .....	5	Education L4 (Introduction to Philosophy) .....	2
Education L1B (Inductive Logic)..	3	Electives .....	3
English L80 (American Literature)	3		
	17		16
Total .....		Total .....	

## V

## COMMERCE COURSES

The Department of Commerce offers two types of professional courses:

A. A two-year course leading to the Junior Certificate.

B. A four-year course leading to the Secondary Certificate in Commerce.

Business experience: Students entering course B should have had at least one year's successful business experience. One summer assignment in placement training under the supervision of the staff in Commerce will fulfill this requirement.

COMMERCE COURSE  
(Suggested Schedule)

I		II	
	Units		Units
Commerce L21A (Elementary Law)	3	Commerce L21B (Elementary Law)	3
Commerce E18A (Penmanship)	2	English L1A (English Composition)	3
Geography L4 (Introduction to Economic Geography)	3	Commerce E18B (Penmanship)	2
Education L2A (Introductory Psychology)	3	Geography L5 (Geography of International Trade)	3
Commerce E16A (Typing)	2	Education E11 (Methods of Teaching)	3
Education LX (Psychology of Study)	1	Commerce E16B (Typing)	2
Mathematics E12 (Business Mathematics)	2	Recreation	$\frac{1}{2}$
Recreation	$\frac{1}{2}$	Military Training L1B (Basic Training)	$1\frac{1}{2}$
Military Science L1A (Basic Training)	$1\frac{1}{2}$	Total	$16\frac{1}{2}$ or $17\frac{1}{2}$
Total	$16\frac{1}{2}$ or $17\frac{1}{2}$		

## SOPHOMORE YEAR

I		II	
	Units		Units
Commerce L14A (Accounting Principles)	3	Commerce L14B (Accounting Principles)	3
Commerce L15A (Accounting Practice)	3	Commerce L15B (Accounting Practice)	3
Commerce L1A (Principles of Economics)	3	Commerce L1B (Principles of Economics)	3
Commerce L11A (Commercial Law)	2	Commerce L11B (Commercial Law)	2
English L10 (English in Business Practice)	2	Commerce E24 (Office Organization and Administration)	2
History E45 (Industrial History)	3	English L80 (American Literature)	3
Recreation	$\frac{1}{2}$	Recreation	$\frac{1}{2}$
Military Science L2A (Basic Training)	$1\frac{1}{2}$	Military Science L2B (Basic Training)	$1\frac{1}{2}$
Total	$16\frac{1}{2}$ or $17\frac{1}{2}$	Total	$16\frac{1}{2}$ or $17\frac{1}{2}$

## JUNIOR YEAR

I	Units	II	Units
Political Science L1A (Government)	3	Political Science L1B (Government)	3
Commerce L51A (Elements of Money and Banking)	3	Commerce L51B (Elements of Money and Banking)	3
Practice Teaching C11 (Junior High School Teaching)	5	Practice Teaching C60A (Senior High School Teaching)	5
Commerce E17A (Shorthand) or Commerce L50A (Intermediate Accounting) or		Commerce E17B (Shorthand) or Commerce L50B (Intermediate Accounting) or	
Commerce E55A (Psychology of Salesmanship) or		Commerce E55B (Psychology of Salesmanship) or	
Commerce L57 (Ocean Transportation) or		Commerce L58 (Railroad Transportation) or	
Commerce L54A (Principles of Marketing)	3	Commerce L54B (Principles of Marketing)	3
Electives	2	Electives	2
<b>Total</b>	<b>16</b>	<b>Total</b>	<b>16</b>

## SENIOR YEAR

I	Units	II	Units
English L4A (Public Speaking)	3	English L4B (Public Speaking)	3
Commerce E97 (Organization and Administration of Commercial Education)	3	Commerce E96 (Curricula and Methods in Commercial Education)	3
Practice Teaching O60B (Senior High School Teaching)	5	Commerce E95 (Part-Time Work Placement Training)	5
Education E65 (School Administration)	3	Education E85 (Vocational Education)	3
English L1B (Advanced Composition) or		Romanic Languages E6B (Spanish in Business Practice) or	
Romanic Languages E6A (Spanish in Business Practice) or		Romanic Languages D (Intermediate Spanish) or	
Romanic Language C (Intermediate Spanish) or		Commerce L76 (Auditing) or	
Commerce L75 (Cost Accounting) or		Commerce E79 (Store Organization and Service) or	
Commerce E78 (Problems of Retail Merchandising) or		Commerce L93 (Latin American Trade) or	
Commerce L65 (Marketing Methods in Foreign Trade) or		Commerce L94 (Asiatic Trade) or	
Commerce L99A (Business Organization and Administration)	3	Commerce L99B (Business Organization and Administration)	3
<b>Total</b>	<b>17</b>	<b>Total</b>	<b>17</b>

## VI

## HOME ECONOMICS COURSES

The Department of Home Economics offers three types of professional courses:

A. A two-year vocational course leading to the Secondary Home Economics Certificate.\*

B. A three-year combination course leading to two certificates:

(a) Elementary Home Economics;

(b) Elementary.

C. A four-year course leading to the Secondary Home Economics Certificate. The first three years' work in this course leads to:

(a) Elementary Home Economics Certificate;

(b) Junior High School Home Economics Certificate.

Technical courses required of all who specialize in Home Economics: Home Economics 1A, 9A, 49.

Required courses:

A. Two-year course:

General courses: Education 2A, 11, 12, 28, Education 25, Commerce 1A, Political Science 8, English 1A.

Technical courses: Art 2A, 26A; Chemistry 2A, 2B, 10; Biology 21 or 1, 10, or Physical Education 9; Physics 11; Home Economics 2, 25, 10, 43; Practice Teaching H10A, H60A, H60B, 34.

B. Three-year course:

General courses: Education 2A, 11, 12, 28; History 1B; Mathematics 10; Geography 1A; English 12; Commerce 1A; Physical Education 10, 11; Biology 12 or 11; Recreation; Electives; Practice Teaching 10A.

Technical courses: Art 2A, 26A, 53A; Chemistry 2A, 2B, 10; Biology 10, 11; Physical Education 9; Home Economics 1B, 58, 9B, 59, 33, 47; Practice Teaching H10A, H10B.

C. Four-year course:

Elementary Home Economics and Junior High School (three years).

General courses: Education X, 2A, 11, 12, 28; History electives; English 1A; English electives (6 units); Commerce 1A; Assembly.

Technical courses: Art 2A, 26A, 53A; Chemistry 2A, 2B, 10; Biology 21, 1, 10; Physical Education 9; Physics 11; Home Economics 1B, 25, 58, 9B, 33, 69, 47; Teaching H10A, H10B, H11A, H11B.

Fourth year:

General courses: Education 4, Education elective, 1A; Political Science 8.

Technical courses: Group I—Chemistry 11; Home Economics 83 or 84, 85, 75, 78; Practice Teaching H60A, 60B; Group II—Chemistry 11; Commerce 54; Home Economics 83, 84, 85; Practice Teaching H60A, 60B; Group III—Art 53B; Commerce 54; Home Economics 75, 78, 77; Practice Teaching H60A, H60B; free elective.

\* This course is open only to women who have had at least four years' schooling beyond the elementary school, or its equivalent in private instruction, and have had at least four years' experience after the age of eighteen in managing a home and performing all the duties of a housekeeper. The course conforms to the requirements of the State Board of Education, as specified in Bulletin 10.



**HOME ECONOMICS COURSE**  
(Suggested Schedule)

**FRESHMAN YEAR**

I	Units	II	Units
Education LX (Psychology of Study) .....	1	Education E11 (Methods of Teaching) .....	3
Education L2A (Introductory Psychology) .....	3	Biology E1 (Bacteriology) or Biology L21 (General Biology) or English L1A (Advanced Composition) or	
Commerce L1A (Principles of Economics) or		English E12 (Teaching of English) in the amount of .....	3
English L1A (Advanced Composition) .....	3	Chemistry L2B (Inorganic and Household Chemistry) .....	4
Chemistry L2A (General Inorganic Chemistry) .....	4	Home Economics E2 (The Study of Dress) or	
Home Economics 1A (Elementary Clothing) or		Home Economics 1B (Elementary Dressmaking) or (Art Elective) in the amount of .....	3
Home Economics 1C (Elementary Clothing) in the amount of .....	3	Home Economics 9B (Elementary Food) or (Free Elective) or	
Home Economics 9A (Elementary Food) or		Home Economics E10 (Family Food) in the amount of .....	3
Home Economics 9C (Elementary Food) in the amount of .....	3	Recreation .....	$\frac{1}{2}$
Recreation .....	$\frac{1}{2}$	Total .....	$16\frac{1}{2}$
Total .....	$17\frac{1}{2}$		

**SOPHOMORE YEAR**

I	Units	II	Units
Art L29 (Design) .....	2	Art E53A (Costume Appreciation and Design) .....	2
Home Economics E49 (Home Economics Education) .....	3	Chemistry L10 (Organic and Food Chemistry) .....	4
Physics E11 (Application of Physics to the Household) .....	3	Home Economics E47 (Home Economics Demonstration) or	
Home Economics E25 (Elementary Millinery) or		Home Economics E48 (Household Administration) .....	2
Physical Education E10 or		Biology L21 (General Biology) and (History Elective) or	
Teaching H10A (Home Economics Elementary Teaching) in the amount of .....	2	Mathematics E10 (Arithmetic) and Physical Education E11 and	
(English Elective and History Elective) or		Biology E11 (Elements of Agriculture) or	
History E13 (History of the United States) and		Biology E12 (Nature Study or Education E12 (Elementary School Administration) and	
Geography L1A (Fundamentals of Geography) or		Education E28 (Kindergarten-Primary Plays, Games and Stories) in the amount of .....	6
Education E25 (Education Sociology) or		Teaching H10A (Home Economics Elementary Teaching) .....	2
Political Science L8 (Government of the United States) or		Recreation .....	$\frac{1}{2}$
Commerce L1A (Principles of Economics) in the amount of .....	6	Total .....	$16\frac{1}{2}$
Recreation .....	$\frac{1}{2}$		
Total .....	$16\frac{1}{2}$		

## JUNIOR YEAR

I		II	
	Units		Units
Art E26A (House Design and House Furnishing) .....	2	Home Economics E59 (Family Food) .....	3
Physical Education L9 (Hygiene)..	2	Biology E1 (Bacteriology) .....	3
Biology E10 (Physiology and Hygiene) .....	2	Education E12 (Elementary School Administration) .....	3
Home Economics E58 (Textiles) ....	3	Home Economics E69 (Household Administration) .....	3
Home Economics E88 (Elementary Dietetics) and		or	
Teaching H10B (Home Economics) or		Commerce E18A (Penmanship) ....	2
Teaching H11A (Junior High School Teaching) .....	4	Education E28 (Kindergarten-Primary Plays, Games and Stories) or (Elective) (General Professional) .....	3
or		Teaching H11B (Home Economics Junior High School Teaching)....	2
Education E28 (Kindergarten-Primary Plays, Games and Stories) and	3		
Teaching Elem. 10A (General Elementary Grade Teaching) .....	5	Total .....	17
Total .....	17		

## SENIOR YEAR

I		II	
	Units		Units
Education L4 (Introduction to Philosophy) .....	3	Political Science L8 (Government of the United States) .....	3
Chemistry L11 (Physiological Chemistry) or		Education E5 (Ethics) .....	3
Art E58B (Costume Appraisal and Design) and (Free Elective)	4	(Education Elective) .....	3
Home Economics E78 (Advanced Textiles) or		Home Economics E85 (Advanced Dietetics) or	
Commerce L54 (Principles of Marketing) .....	3	Home Economics E77 (Advanced Millinery) .....	3
Home Economics E75 (Advanced Dressmaking) or		Teaching H60A (Home Economics) and	
Home Economics E88 (Experimental Cookery) or		Teaching H60B (Secondary Teaching) .....	4
Home Economics E84 (Lecture-Demonstration Cookery) in the amount of .....	6	Total .....	16
Total .....	16		

NOTE.—In addition to the above schedule, Home Economics Vocational students will be expected to include Art L2A (first semester); Art E26A (second semester); Home Economics E84 (Elementary Dietetics), Home Economics E25, Teaching H60A (fourth semester). Where these courses are required in other terms they will be omitted.

## VI

## MECHANIC ARTS COURSES

The Department of Mechanic Arts offers the following courses:

A. Four-year Mechanic Arts teacher training courses that prepare the graduates to teach or supervise industrial work in the elementary and secondary schools of the state.

B. Vocational courses that prepare students in the particular trade elected. Credentials will be issued for the work completed.

## MECHANIC ARTS COURSE

## (Suggested Schedule)

## FRESHMAN YEAR

I	Units	II	Units
Mechanic Arts L1A (Engineering Drawing) .....	8	Mechanic Arts L1B (Engineering Drawing) .....	8
Physics L1A (General Physics) ...	8	Physics L1B (General Physics) ....	8
Mathematics L1 (Advanced Algebra) .....	8	Mathematics OC (Trigonometry) ....	8
Mechanic Arts E10A (Shop Work) .....	8	Mechanic Arts E24A (Shop Practice) .....	8
Education LX (Psychology of Study) .....	1	History E54 (Industrial History of the United States) .....	8
Military Science L1A (Basic Training) .....	1½	Military Science L1B (Basic Training) .....	1½
Recreation .....	½	Recreation .....	½
Commerce 54A (Principles of Marketing) .....	8		
	<hr/>	Total .....	17
Total .....	18		

## SOPHOMORE YEAR

I	Units	II	Units
Mechanic Arts L2D (Drawing) ....	8	Mechanic Arts L8 (Mechanical Engineering) or	
Chemistry L1A (General Chemistry) ..	8	Mechanic Arts E4 (Architectural Drawing) .....	8
Mechanic Arts E61 (Shop Work) ..	8	Chemistry L1B (General Chemistry) ..	8
English L1A (English Composition) ..	8	Mechanic Arts L7 (Automobile Construction) or	
Mathematics L8A (Plane Analytic Geometry) .....	8	Mechanic Arts E60A (Shop Work) ..	8
Military Science L2A (Basic Training) .....	1½	English L10 (English in Business Practice) .....	8
Recreation .....	½	Mathematics L8B (Differential Calculus) .....	8
	<hr/>	Military Science L2B (Basic Training) .....	1½
Total .....	17	Recreation .....	½
		Total .....	17

## University of California

## JUNIOR YEAR

I	Units	II	Units
Education L2A (Introductory Psychology) .....	3	Education L2B (Genetic Psychology) .....	3
Mechanic Arts E50A (Applied Electricity) .....	3	Mechanic Arts E50B (Applied Electricity) or	
Mechanic Arts L10 Mechanical Engineering) .....	3	Mechanic Arts E51A (Applied Electricity) .....	3
Mechanic Arts E75A (Shop Work)	3	Mechanic Arts L57 (Automotive Laboratory) .....	3
Commerce L1A (Principles of Economics) .....	3	Mechanic Arts Teaching MA10A.....	5
English L4A (Elements of Public Speaking) .....	3	Commerce L1B (Principles of Economics) .....	3
Total .....	18	Total .....	17

## SENIOR YEAR

I	Units	II	Units
Mechanic Arts E52A (Applied Mechanics) .....	2	Mechanic Arts E52B (Applied Mechanics) .....	2
Mechanics Arts Teaching MA10B or MA11A .....	5	Mechanic Arts Teaching MA60A.....	5
Education E59 (Junior High School Methods) .....	3	Education E65 (School Administration) .....	3
Commerce L99A (Business Organization and Administration) .....	3	Commerce L99B (Business Organization and Administration) .....	3
Mechanic Arts (Shop Work Elective) .....	3	Mechanic Arts (Shop Work Elective) .....	3
Electives .....	2	Electives .....	2
Total .....	18	Total .....	18

## VIII

## MUSIC COURSES

The Department of Music offers three types of professional courses:

- A. A three-year course leading to the Elementary Music Certificate.
- B. A three-year combination course leading to two certificates:
  - (a) Elementary Music;
  - (b) Elementary.
- C. A four-year course leading to the Secondary Music Certificate.

NOTE.—Candidates for elementary and secondary music certificates and students who expect to major in music must be proficient in (a) sight reading, (b) dictation, (c) piano.

## MUSIC COURSE

(Suggested Schedule)

FRESHMAN YEAR		FRESHMAN YEAR	
I	Units	II	Units
Education L2A (Introductory Psychology) .....	8	Education L2B (Genetic Psychology) .....	8
Education LX (Psychology of Study) .....	1	Music L12B (Melodic Dictation)....	8
Music L12A (Melodic Dictation)....	8	Music E11B (Voice) .....	2
Music E11A (Voice) .....	2	Music E18B (Orchestral Instruments) .....	1
Music E18A (Orchestral Instruments) .....	1	Music L2D (Piano Ensemble) .....	2
Music L2C (Piano Ensemble) .....	2	English L1B (Advanced Composition) .....	8
English L1A (Advanced Composition) .....	8	Electives .....	2
Electives .....	1	Military Science L1B (Basic Training) .....	1½
Military Science L1A (Basic Training) .....	1½	Recreation .....	½
Recreation .....	½	Total .....	16½ or 17½
Total .....	16½ or 17½		
SOPHOMORE YEAR			
I	Units	II	Units
Music L4A (Harmony) .....	8	Music L4B (Harmony) .....	8
Music E59A (Conducting) .....	2	Music E59B (Conducting) .....	2
Music E8A (Music Education) .....	8	Music E8B (Music Education) .....	8
Music E21A (Music Observation) ..	1	Music E21B (Music Observation) ..	1
English E10B (Primary Reading) ..	8	Education E11 (Methods of Teaching) .....	8
Electives .....	2	Recreation .....	½
Military Science L2A (Basic Training) .....	1½	Electives .....	2
Recreation .....	½	Military Science L2B (Basic Training) .....	1½
Elective .....	2	Elective .....	2
Total .....	16½ or 17½	Total .....	16½ or 17½

## University of California

## JUNIOR YEAR

I		II	
	Units		Units
Education E12 (Elementary Administration) .....	3	Mathematics L1 (Algebra) .....	3
Music L8A (Music Literature) .....	3	Music L8B (Music Literature) .....	3
Mathematics L0 (Trigonometry) ....	3	Teaching M10B (Elementary Teaching) .....	5
Teaching M10A (Elementary Teaching) .....	5	Music E60B (Composition and Orchestration) .....	2
Music E60A (Composition and Orchestration) .....	2	Electives .....	3
	<hr/>		<hr/>
Total .....	16	Total .....	16

## SENIOR YEAR

I		II	
	Units		Units
Music E91 (Music Observation) ....	3	Music E64B (Form and Analysis)..	2
Music E64A (Form and Analysis)..	2	Music E68B (Music Literature) ....	2
Music E68A (Music Literature) ....	2	Music E55B (Composition) .....	3
Music E55A (Composition) .....	3	Music E65B (Piano) .....	2
Music E65A (Piano) .....	2	Teaching M60B (Secondary Teaching) .....	5
Teaching M60A (Secondary Teaching) .....	5	Electives .....	2
	<hr/>		<hr/>
Total .....	17	Total .....	16

## IX

## PHYSICAL EDUCATION COURSES

The Department of Physical Education for Women offers three types of courses:

A. A two-year course leading to the Junior Certificate.

B. A three-year course leading to the Elementary Physical Education Certificate.

C. A four-year course leading to the Secondary Physical Education Certificate.

Required courses:

A. Two-year course.

General courses: Chemistry 2A-2B; Biology 11A-11B, 35.

Technical courses: Physical Education 5, 52ABCD, 71ABCD.

B. Three-year course.

General courses: Biology 2A-2B, 10, 35; Commerce 1A; Education 2A-2B, 11, 12, 25, X; English 1A; Teaching P10A-P10B.

Technical courses: Physical Education 5, 15, 16, 25, 31A-31B, 35, 40A-40B, 42A-42B, 45, 46, 48, 50, 52ABCD, 60ABCD, 61ABCD, 65ABCD, 70AB, 71ABCD, 72ABCD, 73ABCD.

C. Four-year course.

(See requirements for B.)

Technical courses: Practice in Physical Training Activities, 20 units.

NOTE.—Additional courses required for Elementary Certificate: Commerce 18A; Geography 1A; History 1A; Mathematics 10; Political Science 1A; Teaching E10A.

## PHYSICAL EDUCATION COURSE

(Suggested Schedule)

## FRESHMAN YEAR

I	Units	II	Units
Education L2A (Introductory Psychology) .....	3	Education L2B (Genetic Psychology) .....	3
English L1A (Advanced English Composition) .....	3	English L1B (Advanced English Composition) .....	3
Chemistry L2A (General Chemistry) .....	4	Chemistry L2B (General Chemistry) .....	4
Education LX (Psychology of Study) .....	1	Physical Education E45 (History of Physical Education) .....	2
Physical Education L2 (Hygiene) .....	2	Physical Education Practice Courses .....	2½
Physical Education Practice Courses .....	2½	Electives .....	2
Electives .....	2		
<hr/>		<hr/>	
Total .....	17½	Total .....	16½

## SOPHOMORE YEAR

I		II	
	Units		Units
Education E11 (Methods of Teaching) .....	3	Education E25 (Education Sociology) .....	3
Commerce L1A (Principles of Economics) .....	3	Biology L85 (General Human Anatomy) .....	5
Biology L11A (General Zoology) .....	5	Physical Education E29 (Methods in Leadership) .....	2
Physical Education Practice Courses .....	2½	Physical Education E46 (Nature and Functions of Play) .....	3
Electives .....	3	Physical Education Practice Courses .....	2½
		Electives .....	2
<b>Total</b> .....	<b>16½</b>	<b>Total</b> .....	<b>17½</b>

## JUNIOR YEAR

I		II	
	Units		Units
Biology E10 (Physiology) .....	3	Education E12 (Elementary Administration) .....	3
Physical Education L5 (Hygiene) ..	2	Physical Education E16 (Therapeutic Gymnastics) .....	3
Physical Education E15 (Kinesiology) .....	3	Physical Education E40A (Physiology) .....	3
Physical Education E31A (Special Methods) .....	2	Physical Education E31B (Special Methods) .....	2
Physical Education E48 (Child Development) .....	2	Teaching P10B .....	2
Teaching P10A .....	2	Physical Education Practice Courses .....	2½
Physical Education Practice Courses .....	2½	Electives .....	2
Electives .....	2		
<b>Total</b> .....	<b>18½</b>	<b>Total</b> .....	<b>17½</b>

## SENIOR YEAR

I		II	
	Units		Units
Education E30 (Secondary Education) .....	3	Physical Education E35 (Administration of Physical Education) .....	3
Physical Education E50 (Principles of Physical Education) .....	3	Physical Education E25 (Therapeutic Gymnastics) .....	3
Physical Education E42A (Normal Diagnosis) .....	3	Physical Education E42B (Normal Diagnosis) .....	3
Physical Education E40B (Physiology) .....	3	Teaching P60B .....	2
Teaching P60A .....	2	Physical Education E27 (Therapeutic Gymnastic Clinic) or	
Physical Education Practice Courses .....	2½	Teaching P70 .....	4
Electives .....	1	Physical Education Practice Courses .....	2½
<b>Total</b> .....	<b>17½</b>	<b>Total</b> .....	<b>17½</b>



**FOUR-YEAR COURSES FOR TEACHERS†****KINDERGARTEN-PRIMARY EDUCATION**

A course for teachers, supervisors and specialists in  
Primary Education

NOTE.—The work of the first two years leads to the Kindergarten-Primary Certificate. It is expected that those who plan to undertake the four-year course will spend at least two years in teaching before entering upon the course herein outlined.

**THIRD YEAR***First Semester*

	Units of credit
Mathematics .....	3
Physics or Chemistry, depending upon the student's preparation.....	3
American Literature .....	3
Psychology .....	3
School Tests and Measurements .....	3
Fine and Industrial Arts in Public Education .....	3

*Second Semester*

Mathematics .....	3
Physics or Chemistry, depending upon the student's preparation.....	3
Advanced Composition .....	3
Psychology .....	3
School Administration .....	3
Music or Fine and Industrial Arts in Public Education .....	3

**ELEMENTARY EDUCATION**

A course for teachers, supervisors and specialists in the work  
of the Elementary School

NOTE.—The first two years of this course lead to the Elementary School Certificate. It is expected that those who plan to undertake the four-year course will spend at least two years in actual teaching before entering upon the courses herein outlined.

**THIRD YEAR***First Semester*

	Units of credit
Mathematics .....	3
Physics or Chemistry, depending upon the student's preparation.....	3
American Literature .....	3
Psychology .....	3
Tests and Measurements .....	3
Music or Fine or Industrial Arts .....	3

† For a general statement concerning these courses see page 88.

<i>Second Semester</i>		Units of credit
Mathematics .....		3
Physics or Chemistry, depending upon the student's preparation.....		3
Advanced Composition .....		3
Psychology .....		3
School Administration .....		3
Music or Fine or Industrial Arts .....		3

FOR RURAL SCHOOL TEACHERS, SUPERVISORS AND  
SPECIALISTS IN RURAL EDUCATION

THIRD YEAR

<i>First Semester</i>		Units of credit
Mathematics .....		3
American Literature .....		3
Elements of Agriculture .....		3
Practical Arts .....		3
Psychology .....		3
School Administration .....		3

*Second Semester*

Mathematics .....	3
Modern European History .....	3
Agriculture—Animal Husbandry with Field Work .....	3
Practical Arts .....	3
Clinical Psychology .....	3
Comparative Rural Education .....	3

FOR TEACHERS OF HISTORY AND ENGLISH IN THE  
INTERMEDIATE SCHOOL

NOTE.—The work of the first two years is identical with that for the Elementary Teacher's Certificate. It is expected that those who plan to undertake the four-year course will spend at least two years in teaching before entering upon the courses herein outlined.

THIRD YEAR

<i>First Semester</i>		Units of credit
Geography .....		3
Mathematics .....		3
History .....		3
Psychology .....		3
School Tests and Measurements .....		3
Education, the Junior High School .....		3

<i>Second Semester</i>		Units of credit
Mathematics .....		3
History .....		3
English Literature .....		3
Educational Psychology .....		3
A Study of Vocations .....		3
Education, the Junior High School .....		3

### FOR TEACHERS OF SCIENCE AND MATHEMATICS IN THE INTERMEDIATE SCHOOL

NOTE.—The work of the first two years is identical with that for the Elementary Teacher's Certificate. It is expected that those who plan to undertake the four-year course will spend at least two years in teaching before entering upon the courses herein outlined.

#### THIRD YEAR

##### *First Semester*

	Units of credit
Mathematics .....	3
American Literature .....	3
Physics, Chemistry, or Biology .....	3
Psychology .....	3
School Tests and Measurements .....	3
Education, the Junior High School .....	3

##### *Second Semester*

Mathematics .....	3
Physics, Chemistry, or Biology .....	3
Economic Geography .....	3
Educational Psychology .....	3
A Study of Vocations .....	3
Education, the Junior High School .....	3

### FOR TEACHERS OF ADULTS IN EVENING SCHOOLS AND SPECIALISTS IN AMERICANIZATION

NOTE.—The work of the first two years is identical with that for the Elementary Teacher's Certificate. It is expected that those who plan to undertake the four-year course will spend at least two years in teaching before entering upon the courses herein outlined.

#### THIRD YEAR

##### *First Semester*

	Units of credit
Mathematics .....	3
Literature .....	3
Political Science .....	3
Economic Geography .....	3
Psychology .....	3
School Tests and Measurements .....	3

	<i>Second Semester</i>	Units of credit
Mathematics .....		3
Literature .....		3
Psychology .....		3
Immigration and the Countries from which the Immigrants Come.....		3
A Study of Vocations .....		3
A Critical Study of the Beginnings of U. S. History .....		3

## ART

## FIRST YEAR

	<i>First Semester</i>	Units of credit
Biology .....		3
Art Appreciation and History .....		2
Design .....		2
Freehand Drawing .....		2
Stage Craft .....		2
Lettering .....		2
Introductory Psychology .....		3
Psychology of Study .....		1
Recreation .....		½

*Second Semester*

Biology .....	3
Art Appreciation and History .....	2
Structural Design .....	2
Costume Appreciation .....	2
House Furnishing .....	2
Freehand Drawing .....	2
Genetic Psychology .....	3
Recreation .....	½

## SECOND YEAR

*First Semester*

Drawing .....	2
Stage Craft .....	2
Sketching, Landscape .....	2
Teaching Methods .....	3
Theory and Practice Teaching .....	5
Physical Education .....	2
Recreation .....	½

*Second Semester*

	Units of credit
Literature .....	2
Advanced Composition .....	3
Drawing .....	2
Illustration .....	2
Physical Education .....	2
Theory and Practice Teaching .....	5
Recreation .....	½

**THIRD YEAR***First Semester*

History of the United States .....	3
Public Speaking .....	3
Costume Design .....	2
Industrial Design .....	2
Stage Craft .....	2
Textile Decoration .....	2
Posters .....	2

*Second Semester*

History, The Renaissance .....	3
Educational Sociology .....	3
Public Speaking .....	3
Illustration .....	2
Practice Teaching .....	5

**COMMERCE****FIRST YEAR***First Semester*

	Units of credit
Mathematics .....	2
Geography .....	3
Elementary Law .....	3
Psychology (Introductory) .....	3
Psychology of Study .....	1
Typing .....	2
Penmanship .....	2
Military Science .....	1½
Recreation .....	½

	Units of credit
<i>Second Semester</i>	
Geography .....	3
English Composition .....	3
Elementary Law .....	3
Education—Methods of Teaching .....	3
Typing .....	2
Penmanship .....	2
Military Training .....	1½
Recreation .....	½

SECOND YEAR  
*First Semester*

Principles of Economics .....	3
Industrial History .....	3
English .....	2
Commerce, Accounting Principles .....	3
Commerce, Accounting Practice .....	3
Commercial Law .....	2
Military Science .....	1½
Recreation .....	½

*Second Semester*

Principles of Economics .....	3
Commerce, Accounting Principles .....	3
Commerce, Accounting Practice .....	3
Commercial Law .....	2
American Literature .....	3
Office Organization and Administration .....	2
Military Science .....	1½
Recreation .....	½

THIRD YEAR  
*First Semester*

Political Science .....	3
Commerce, Elements of Money and Banking .....	3
Shorthand, or Intermediate Accounting, or Psychology of Salesman- ship, or Ocean Transportation, or Principles of Marketing .....	3
Practice Teaching—Junior High School Teaching .....	5
Electives .....	2

*Second Semester*

Political Science .....	3
Commerce, Elements of Money and Banking .....	3
Shorthand, or Intermediate Accounting, or Psychology of Salesman- ship, or Transportation, or Principles of Marketing .....	3
Practice Teaching—Senior High School Teaching .....	5
Electives .....	2

## HOME ECONOMICS

A course for teachers, supervisors, and specialists in  
Home Economics

## FIRST YEAR

*First Semester*

	Units of credit
Economics .....	3
Introduction to Psychology .....	3
Chemistry, General Inorganic .....	4
Psychology of Study .....	1
Food .....	3
Clothing .....	3
Recreation .....	½

*Second Semester*

Chemistry, Inorganic .....	4
Advanced Composition .....	3
Methods of Teaching .....	3
Food .....	3
Clothing .....	3
Recreation .....	½

## SECOND YEAR

*First Semester*

English .....	3
Chemistry, Organic and Food .....	4
History .....	3
Art Design .....	2
Millinery .....	2
Home Economics Education .....	3
Recreation .....	½

*Second Semester*

Biology .....	3
History .....	3
Elementary Dietetics .....	3
Costume Design .....	2
Home Economics Demonstration .....	2
Home Economics Teaching .....	2
Recreation .....	½

## THIRD YEAR

*First Semester*

	Units of credit
Physiology and Hygiene .....	2
Household Physics .....	3
Home Nursing .....	2
House Design—House Furnishing .....	2
Family Food .....	3
Home Economics Teaching .....	4

*Second Semester*

Bacteriology .....	3
Education .....	3
Textiles .....	3
Household Administration .....	3
Kindergarten-Primary Plays, Games, and Stories .....	3
Home Economics Teaching .....	2

## MUSIC

A course for departmental teachers, supervisors, and directors  
of Music

## FIRST YEAR

*First Semester*

	Units of credit
History .....	3
English .....	3
Psychology .....	3
Melodic Dictation (5 hours) .....	3
Voice .....	2
Orchestral Instruments .....	1
Piano Ensemble .....	2

*Second Semester*

History .....	3
English .....	3
Psychology .....	3
Orchestral Instruments .....	1
Piano Ensemble .....	2
Melodic Dictation .....	3
Voice .....	2



## SECOND YEAR

*First Semester*

	Units of credit
Science .....	3
Literature .....	3
Economics .....	3
Harmony .....	3
Conducting .....	2
Observation (2 hours) .....	1
Music Education .....	3

*Second Semester*

Science .....	3
Literature .....	3
Harmony .....	3
Conducting .....	2
Observation (3 hours) .....	1
Music Education .....	3
Voice .....	2

## THIRD YEAR

*First Semester*

Mathematics .....	3
Education .....	3
Music Literature .....	3
Teaching .....	5
Composition and Orchestration .....	2

*Second Semester*

Mathematics .....	3
Education .....	3
Music Literature .....	3
Teaching .....	5
Composition and Orchestration .....	2

## MECHANIC ARTS

Mechanic Arts teacher-training courses that prepare the graduates to teach or supervise industrial work in the Elementary and Secondary Schools of the State

## FIRST YEAR

*First Semester*

	Units of credit
Engineering Drawing .....	3
Physics .....	3
Mathematics .....	3
Shop Work .....	3
Education .....	1
Military Science .....	1½
Commerce .....	3
Recreation .....	½

*Second Semester*

Engineering Drawing .....	3
Physics .....	3
Mathematics .....	3
Shop Practice .....	3
Industrial History of the United States .....	3
Military Science .....	1½
Recreation .....	½

## SECOND YEAR

*First Semester*

Drawing .....	3
Chemistry .....	3
Shop Work .....	3
English Composition .....	3
Mathematics .....	3
Military Science .....	1½
Recreation .....	½

*Second Semester*

Mechanical Engineering or Architectural Drawing .....	3
Chemistry .....	3
Automobile Construction or Shop Work .....	3
Commerce .....	2
Mathematics .....	3
Military Science .....	1½
Recreation .....	½

## THIRD YEAR

*First Semester*

	Units of credit
Education .....	3
Applied Electricity .....	3
Mechanical Engineering .....	3
Shop Work .....	3
Commerce .....	3
English .....	3

*Second Semester*

Education .....	3
Applied Electricity .....	3
Automotive Laboratory .....	3
Mechanic Arts Teaching .....	5
Commerce .....	3

## PHYSICAL EDUCATION

A course for teachers, supervisors, and specialists in  
Physical Education

## FIRST YEAR

*First Semester*

	Units of credit
Economics .....	3
History .....	3
Hygiene .....	2
Chemistry .....	4
Psychology .....	1
Physical Education .....	2½

*Second Semester*

English .....	3
History .....	3
Chemistry .....	4
Psychology .....	3
History of Physical Education .....	2
Physical Education .....	2½

## SECOND YEAR

*First Semester*

	Units of credit
Zoology .....	4
Political Science .....	3
Psychology .....	3
Education .....	3
Theory of Physical Education .....	2
Physical Education .....	2½

*Second Semester*

Child Development .....	2
Education .....	3
Teaching .....	5
Physical Education .....	2½
Anatomy .....	4

## THIRD YEAR

*First Semester*

English .....	3
Physiology .....	4
Kinesiology .....	2
Education .....	2
Teaching .....	3
Physical Education .....	2½

*Second Semester*

Physiology .....	4
Theory of Physical Education .....	2
Therapeutic Gymnastics .....	3
Administration of Physical Education .....	3
Hygiene .....	2
Teaching .....	2
Physical Education .....	2½

**GENERAL REGULATIONS OF THE FACULTIES CONCERNING  
STUDENTS IN THE ACADEMIC DEPARTMENTS**

Following are certain general regulations governing the academic departments.

**MILITARY SCIENCE, PHYSICAL EDUCATION AND HYGIENE**

All undergraduate students shall, upon admission to the University, report immediately to the proper officers for enrollment in military science, physical education, and hygiene, following the Freshman Circular or the announcements which may be posted on the University bulletin boards. A deposit (thirty dollars) must be paid at once to the Comptroller of the University to cover the cost of the uniform and text book to be used in military courses. Students shall list these courses upon their study cards with other University courses.

Petitions from students for excuse from, or deferment of, military science, physical education, or hygiene, filed by the petitioner after the expiration of two weeks following the date of the student's registration, will not be received except for illness or physical disability occurring after such date. Students who petition to be excused from these subjects or from any of them should nevertheless present themselves to the proper instructors for enrollment during the pendency of petitions.

In case a student subject to these requirements shall list the prescribed course or courses on his study card and thereafter without authority shall fail to appear for work in such course or courses, after a reasonable time, the neglect shall be reported to the Recorder, who, with the approval of the Director, shall forthwith withdraw the study card of the student. When a student's study card is withdrawn he is thereby suspended from participation in all University exercises. Of such suspension it shall be the duty of the Recorder to inform immediately the Scholarship Committee in charge of the students' programme. With the approval of the professor in charge of the work, the Recorder is authorized to reinstate the student, and shall notify the Scholarship Committee of such reinstatement.

[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.]

**SUBJECT A: ENGLISH COMPOSITION**

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

(1) Students who pass Subject A with grade A or B are not required, but are advised, to continue their training in oral and written composition. (2) Students who pass Subject A with grade C or D are required to take English 1x during their freshman or sophomore year, and junior standing will not be granted them until they have passed the course. (3) Students who receive grade E or F in Subject A are conditioned in the subject, and they will not be granted junior standing until they have passed the examination. They will be required to take, without credit, a course in English composition, especially designed to meet their needs, and calling for one period of class instruction per week, together with written exercises and conferences, until they have passed in Subject A. Those who pass with grade C or D will not be granted junior standing until they have fulfilled the requirements under 2 above. No student who has not passed Subject A will be admitted to any university course in oral or written composition other than the course described above, except that foreign students may be permitted to elect a course especially designed for them. (4) Intrants who fail to present themselves for the examination at the time appointed will be charged a fee of two dollars when they enter the examination for the first time. (5) For students who enter with advanced standing Subject A is a requirement for junior standing. To those who pass with grade C or D, English 1x is prescribed. (6) Failure in the examination does not prevent admission to the University. (7) The examination will be given at the University, at the opening of the fall and spring sessions. (See announcement of entrance examinations.)

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

**GRADES OF SCHOLARSHIP; GRADE POINTS**

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 be reported to the Recorder of the Faculties in six grades, four of which will be passing grades, as follows: A, excellent; B, good; C, fair; D, barely passed. Grade D corresponds to the low three of the grading system used before August, 1921,\* sometimes stated as

\* Before August, 1921, scholarship grades were as follows: 1, Marked excellence; 2, thoroughly satisfactory; 3, passed; 4, conditioned; 5, failure.

three minus. Courses in which students obtain grade E (conditioned) will not be credited to them, except upon the condition of passing a re-examination. 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 of failure to perform any of the allotted tasks in a given course, is incomplete.

Grade points, or quality units, will be assigned as follows: Grade A, three points per unit; B, two points per unit; C, one point per unit; D, no points. Conditions and failures removed will be credited without grade points, irrespective of the grade assigned on repetition or re-examination.

To qualify for the bachelor's degree in the College of Letters and Science, in the College of Agriculture, in the College of Commerce, or in the College of Chemistry, in or after May, 1923, the candidate must have attained at least as many grade points or quality units as he has attained time units or quantity units in all work undertaken by him in the University of California in and after August, 1921. If, for example, he has undertaken 60 units, he must have 60 grade points; if 90 units, he must have 90 grade points; if 124 units, 124 grade points, and so on.

In the colleges of Mechanics, Mining and Civil Engineering the bachelor's degree is conferred upon the completion of the requisite number of units of work in the courses required for the degree, without regard to the number of grade points or quality units attained by the candidate.

The reports in January, as in June, are final reports, not provisional reports, with the following exception: if the organization of the work permits and if the deficient student retains his status in the University, a *grade E* or an *incomplete* in the first half of a year course (a "double-number" course) may, at the discretion of the instructor in charge, be removed upon the basis of the regular work and examinations of the second half-year. In every such case the student should apply promptly to his instructor for advice. It is not to be assumed that a passing grade in the work of the second half-year removes a deficiency in the first half-year.

The entrance examinations are ranked and reported to the Recorder in six grades, corresponding with the six grades used for reporting upon university courses. In the case of entrance examinations, failure to pass is indicated by grade E or grade F.

#### CONDITIONS AND FAILURES

For the removal of conditions, the student has the privilege of taking the regular midyear or annual examinations in the subjects in which he is conditioned. Examinations may be held at other times only by the special permission of the Faculty and on payment of a fee of five dollars.

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; or (3) to pass with grade A or B in courses aggregating at least eight (8) units of duly registered work. Any student who fails to satisfy this requirement will be dropped from the roll. Independently of this rule, any student who neglects any part of the work for which he is registered (regardless of the number of units passed) may be dropped from the roll by faculty action. Any student dropped from the roll may be reinstated, after an interval of at least one half-year, for reasons satisfactory to the Committee on Disqualified Students. It is therefore absolutely necessary for any disqualified student who proposes to return to the University to communicate without delay with this committee, through the Recorder, in order that the question of reinstatement may be considered by the committee and in order that the student may have ample opportunity to prepare for examinations or other tests which the committee may impose.

Any student who is reported as having failed in an examination, or who, after being conditioned, does not pass the reexamination for the removal of the condition, will be required to repeat every such deficient 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.

Deficiencies in military science and physical education have the same effect as deficiencies in other subjects.

A matriculation deficiency in a subject continued in the University, in which the deficient student attains a rank of B, may be removed by the proper faculty on the recommendation of the officer of instruction in charge of the subject, with the approval of the chairman of the department. Students, however, are cautioned not to assume in advance that this will be done. In some departments no matriculation credit is given except upon matriculation examination.

#### UNITS OF WORK AND CREDIT; STUDY LIST LIMITS

Both matriculation and university work are measured in "units." In the University 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 120, or more, units distributed according to the requirements of the college in which the student is enrolled is necessary for a degree.



In the colleges of engineering regular students who are free from deficiencies in their university work may register for not more than 19 units of new work; in the College of Agriculture the limit is 18 units. Regular students with deficiencies will be limited to 16 units, including repeated work. Freshmen and sophomores who are taking the *prescribed courses* in physical education, hygiene, or military science may, with the express approval of the Study Lists Committee, add these courses to the maxima as stated herein. Beginning August, 1921, in the College of Letters and Science students may present study lists aggregating 12 to 16 units per semester without special permission. During the first semester in residence at the University no student will be permitted to take more than 16 units of work. After one semester in regular residence (i.e., with a study list of at least 12 units) a student may receive permission to take not more than 18 units per semester, provided he has attained an average of at least second grade for the preceding semester. Prescribed courses in military science, physical education, and hygiene and repeated courses are to be counted in reckoning study list totals. Any work undertaken in the University or elsewhere with a view to credit toward a degree must be included in the maxima, as above. Work reported by the instructors as "incomplete" is regarded as deficient work.

Special students have free election, subject to the requirement that they confine their attention to some special study and its related branches.

Limited students have all their studies elective, but may take not more than thirteen units a week.

#### SPECIAL STUDENTS

Special students have free election, subject to the requirements that they confine their attention to some special study and its related branches.

#### LEAVE OF ABSENCE AND HONORABLE DISMISSAL

*Prolonged leave of absence* must be sought by written petition to the proper Faculty.

*Brief leave of absence.* A student must apply for leave to be absent or excuse for having been absent from any college exercise other than an examination 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 proper 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.

*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.

*Honorable dismissal,* indicating that the student, while in good standing, has voluntarily severed his connection with the University, should be sought by written petition to the proper Faculty. Without such petition no record of honorable dismissal will be made.

## GENERAL INFORMATION

### LIVING ACCOMMODATIONS

*The cost of board and lodging* (1) in boarding houses in Los Angeles is \$35 to \$50 a month. (2) For students living in housekeeping rooms and "boarding themselves" the expenses may be reduced as low as \$20 to \$25 a month, but this plan of living is not generally recommended. (3) Families or groups of mature students who wish to rent furnished houses or apartments should apply to the local real estate agents. Rents near the campus for housing eight or more persons range from \$65 up, unfurnished. A two-room furnished apartment, with bath and kitchenette, janitor service, heat and house laundry, rents from \$50 up.

The University has no dormitories. Lists of boarding places approved by the University authorities are published at the opening of every session. No freshman woman is permitted to complete her registration unless her boarding place is first approved by the Counsellor of Women.

Lists of approved boarding places and further advice concerning living accommodations may be obtained at the office of the Counsellor of Women, Millspaugh Hall.

### EMPLOYMENT

Women students desiring employment should apply at the office of the Counsellor of Women, Millspaugh Hall.

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

### EXPENSES OF STUDENTS

Tuition in Academic Colleges at Berkeley and Los Angeles is free to residents of the state. Non-residents of California are charged a tuition fee of \$75 each half-year.

An incidental fee of \$12.50 per half-year is payable by every student before his study card is filed. This fee 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.

**Physical Examinations.**—Students are required to report for physical examinations at the beginning of each year.

Students who fail to meet their appointments with the medical examiner are subject to a fee of \$1 for a second appointment.

**Vaccination.**—All students must satisfy the medical examiner concerning vaccination before entering.

**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 annum.

The military uniform deposit is \$27, and the military text book deposit is \$3; both deposits are 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 students who are citizens of the United States, able-bodied and under twenty-four years of age at admission to the University. The United States furnishes uniforms and some text books for the use of students receiving military training. The University being responsible for uniforms and text books furnished by the United States requires the student to deposit with the Comptroller an amount necessary to cover the cost of the articles issued 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 him. The amount necessary to replace articles not returned by the student will be retained by the Comptroller. The text books are loaned the student through the University Library.

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

The ordinary yearly expenses of a student in the academic departments, including personal expenses, would probably be at least \$665.

**THE LIBRARY AT LOS ANGELES**

The Library is located in a separate building with a capacity of 50,000 volumes. The reading rooms will accommodate about 400 students.

The Library is open daily, save Sundays. From Monday to Friday, inclusive, the hours are from 7:45 a.m. to 5 p.m.; Saturday, from 8:30 a.m. to 1 p.m. The Library contains about 35,000 volumes and 8000 pamphlets. About 5000 books are added annually. The library subscribes for many of the leading periodicals, professional and general. In addition there are about 6500 bound volumes of the literary and educational magazines.

A Library Handbook, containing rules and regulations and general information regarding the library, has been issued for general distribution.

**THE APPOINTMENT SECRETARY**

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 secure positions of the kind for which they are best fitted. Students are urged to make occasional calls at the office of the Appointment Secretary throughout their entire course.

There is no expense to the school officials or to students for the service rendered by this office.

**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. There are at present no formal entrance requirements, except that applicants must be persons of good moral character and must be considered by the faculty to be of sufficient maturity and intelligence to profit by attendance upon the exercises of the session. The courses of instruction are mainly of university grade, and credit toward university degrees may be given to attendants who comply with such conditions of work and examinations as may be imposed by the instructors in charge.

The tuition fee is \$20, regardless of the number of courses taken.

The Announcement of the Summer Session is issued in April of each year and may be obtained by addressing the Dean of the Summer Sessions, Berkeley, California.

In addition to the session at the University in Berkeley, the Summer Session in Los Angeles has been established and will be conducted at the Southern Branch of the University.

### III. ANNOUNCEMENT OF COURSES

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#### EXPLANATORY NOTE

Professional education courses are preceded by the letter "E," and courses marked with the letter "L" are the equivalent of lower division courses at Berkeley.

*Year-courses; Double Numbers.* A course designated by a double number (for example, Commerce 4A-4B) is continued through two successive half-years that is, from September to June or from January to January. The student will use the first number in registering for the course during its first half-year, and the second number during its second half-year. A final report will be made by the instructor at the end of each half-year. The student may discontinue the course at the end of the first half-year, with final credit for the first half of the course.

#### ABBREVIATIONS

The credit value of each course in semester units is indicated for each semester by a numeral in parentheses following the title. A semester unit is one hour of the student's time at the University, weekly, during one half-year, in lecture or recitation, together with the time necessary in preparation therefor; or a longer time in laboratory or other exercises not requiring preparation. The session during which the course is given is shown as follows: I, first half-year; II, second half-year; "Yr.," throughout the year. When no hours are stated it is understood that these are to be arranged later. Further information concerning class hours will be found in the SCHEDULE.

## ART

- N. HUNTINGTON GERE, Associate Professor of Fine Arts.
- HELEN CLARK CHANDLER, Assistant Professor of Fine Arts.
- LOUISE P. SOOY, Assistant Professor of Fine Arts.
- ANNA P. BROOKS, A.B., B.S., Instructor in Fine Arts.
- BESSIE E. HAZEN, Instructor in Fine Arts.
- ANNITA DELANO, Associate in Fine Arts.
- B. KIRK SMITH, Associate in Fine Arts.
- ~~BELLE H. WHITICE, Associate in Industrial Arts. nowhere 1921-22~~
- OLIVE NEWCOMB, Associate in Industrial Arts.
- NATALIE WHITE, Associate in Industrial Arts.

*Clara Bertram*

## FEES

*Laboratory.*—The fee required for courses 9, 10B, 49, 89, 98, 29A, 29B, 58A, 58B, 69A, 69B, 79A, 79B, 34A is 50 cents each; for courses 8A, 8B, 68 it is \$1 each; for courses 19A, 19B, 39A, 39B it is \$2 each; for course 34B it is \$4.50; for course 44 it is \$6.

## PREPARATION FOR THE MAJOR

Required: 1A, 1B (4); 2A, 2B, 32A (6); 4A, 4B, 34B (6); 12A (2).

## Lecture Courses

- ✓ - L1A-L1B. Art Appreciation and History. (2-2) ~~I-II~~ (II) GERE
- ✓ - L81. Art Appreciation and History. (2) I. ✓ GERE

## Design

- ✓ - L2A-L2B. Structural. (2-2) Yr. - *white, Chandler, DELANO Hazen*
- ✓ - E3. Costume Appreciation and History. (2) II. ✓ SOOY
- ✓ - L12A-L12B. Lettering. (2-2) Yr. ✓ *Hazen* SMITH
- ✓ - L32A-L32B. Industrial. (2-2) Yr. ✓ DELANO
- ~~L52A-L52B. Imaginative. (2-2) Yr. - DELANO~~
- ✓ - E53A-~~E53B~~. Costume Appreciation and Design. (2-2) Yr. II *Hazen*
- ✓ - L62. Posters. (2) I. ✓ SMITH
- ✓ - E83A-E83B. Costume Design. (2-2) Yr. ✓ SOOY
- ✓ - E93. Fashion Drawing. (2) II SOOY

$\frac{1}{2}$ E 3 also given II for 1 un.

Drawing and Painting

- ✓ → L4A-L4B. Freehand Drawing. (2-2) <sup>with sem.</sup> ~~Yr.~~ (~~Graphic Art AB and 1A~~)  
BROOKS, HAZEN
  - ✓ → L34A-L34B. Drawing from Figure. (2-2) Yr. ✓ CHANDLER, SMITH
  - ~~E44. Model. (6) II. SMITH~~
  - ~~E84A-E84B. Commercial Drawing. (2-2) Yr. CHANDLER~~
- Meets requirements of Mechanic Arts E6A-E6B.

Illustration

- ✓ → E5. Elementary. (2) II. ✓ CHANDLER
- ✓ → E75A-E75B. Advanced. (2-2) Yr. II CHANDLER, SOOY

Interior Decoration

- ✓ → E16A-E16B. House Design and Furnishing. (2-2) ~~Yr. (I)/(I-II)~~ HAZEN, GEE
- ✓ → E26A. House Design and Furnishing. (2) I. ✓ *Hazen*
- ✓ → E56. Furniture and Details. (4) I. ✓ SOOY
- ~~E86A-E86B. Rooms, Color. (2-2) Yr. SMITH, SOOY~~

Landscape

- ✓ → E57A-57B. Sketching. (2-2) Yr. I HAZEN
- ~~E77A-E77B. Water Color and Oil. (2-2) Yr. CHANDLER~~

Crafts

- ✓ → E8A-E8B. Stage Craft. (2-2) Yr. (I) - (I-II) DELANO, HAZEN, SMITH *Smoy*
- ~~E9. Elementary Construction. (2) I. —~~
- ✓ → E19A-E19B. Pottery. (2-2) Yr. (I) (I-II) *reassess white*
- ✓ → E29A-E29B. Bookbinding. (2-2) Yr. ✓ *white*
- ~~E39A-E39B. Weaving. (2-2) Yr. II —~~
- ~~E40. Basketry. (2) I. —~~
- ✓ → E58A-E58B. Textile Decoration. (2-2) Yr. ✓ DELANO
- ✓ → E68. Stage Craft. (2) I. ✓ SOOY
- ~~E69A-E69B. Leather. (2-2) Yr. —~~
- ~~E79A-E79B. Metal. (2-2) Yr. —~~
- ~~E80. Bookbinding. (2) II. —~~
- ✓ → E98. Clay Modeling. (2) ~~Yr.~~ (I - II) *reassess*

1/2 E16B given ~~II~~ for 1 un.

## Method Courses

- ✓ - E10A-E10B. Fine and Industrial Arts for Elementary Teachers. (2-2) Yr. *Cartwright, Morgan, (1-II) (1-1)*
- ✓ - E20A-E20B. Fine and Industrial Arts for Kindergarten-Primary Teachers. (3-3) Yr. *Smith, Cartwright, White*
- ✓ - E30A-E30B. Methods of Teaching Fine Arts. (2-2) Yr. ✓ BROOKS
- ✓ - E40A-E40B. Methods of Teaching Industrial Arts. (2-2) Yr. II *Neercomb*
- ✓ - E80A-E80B. Methods of Teaching Fine Arts. (2-2) Yr. II *Cartwright, Brooks*
- ~~E90A-E90B. Methods of Teaching Industrial Arts. (2-2) Yr. —~~

## BIOLOGY

- LOYE HOLMES MILLER, Ph.D., Associate Professor of Biology.
- FRANK E. OLDER, B.S., Assistant Professor of the Teaching of Agriculture.
- SARAH ROGERS ATSATT, M.S., Instructor in Biology.
- PIRIE DAVIDSON, M.A., Instructor in Zoology.
- FRED M. ESSIG, Ph.D., Instructor in Botany.

*Laboratory Fees.*—The deposit required for Biology 2A, 2B, and 1 is \$2.50; for 11A, 11B, it is \$5.00, of which the maximum amount returnable is \$2.50.

## Biology

- ✓ — E10. Physiology and Personal Hygiene. (3) Either semester. ✓ ATSATT
- ✓ — E12. Nature Study. (3) Either semester. ✓ MILLER, ATSATT

## Agriculture

- ✓ — L5. General Horticulture. (3) II. ✓ OLDER
- ✓ — E17. Elements of Agriculture. (2) Either semester. ✓ OLDER, ESSIG

~~E27. Advanced Agriculture and School Gardening. (3) II. OLDER~~

~~Prerequisite: Biology E17 or its equivalent.~~

## Botany

- ✓ — E1. Elementary Bacteriology. (4) II. ✓ ESSIG
- ✓ — L2A-L2B. General Botany. (4-4) Yr. ✓ ESSIG



## Palaeontology

- ✓ L4. Elementary Palaeontology. (2) I. ✓ MILLER  
Three Saturday field trips will be required.

## Zoology

- ✓ L11A-L11B. General Zoology. (4-5) Yr. ✓ DAVIDSON  
~~L14. Zoology of the Higher Vertebrates. (2) II. MILLER~~  
✓ L15. Organic Evolution. (2) II MILLER  
✓ L21. General Biology. (3) II ✓ DAVIDSON  
Recommended for students of the College of Letters and Science.  
✓ L35. General Human Anatomy. (5) ~~Either semester.~~ II ATSAIT  
Prerequisite: Biology L11A.  
-L17B \_\_\_\_\_ second half II sem (2) Davidson

## CHEMISTRY

- WILLIAM CONGEE MORGAN, Ph.D., Professor of Chemistry.  
-W. R. CROWELL, Ph.D., Assistant Professor of Chemistry.  
-G. R. ROBERTSON, Ph.D., Instructor in Chemistry.  
-H. W. STONE, Ph.D., Instructor in Chemistry.  
Assistants in Chemistry.

*Laboratory Fees.*—The deposit required for courses 2A, 2B, 10, 11, is \$10.00, of which the maximum amount returnable is \$3.00; for courses 5, 6A, 6B, it is \$17.00, of which the maximum amount returnable is \$5.00; for courses 1A, 1B, it is \$17.50, of which the maximum amount returnable is \$5.00; for course 9, it is \$28.00, of which the maximum amount returnable is \$10.00.

## PREPARATION FOR THE MAJOR

Required: Chemistry 1A-1B (10); Physics 1A-1B or 2A-2B (6); Mathematics 3A-3B (6); French or German.

- ✓ L1A-L1B. General Chemistry. (5-5) Yr. ✓ MORGAN and STAFF  
Lectures or recitations, three hours; laboratory, six hours. Prerequisite: high school chemistry, or high school physics and trigonometry. Required for Colleges of Engineering, Chemistry, Agriculture, for pre-medical students and chemistry majors.

- ✓ — E2A-E2B. General Chemistry. (4-4) Yr. ✓ <sup>Stone</sup> MORGAN and Staff  
Lectures or recitations, 3 hours; laboratory, 3 hours. No prerequisites; high school chemistry recommended. This course (or L1A-L1B) is required of all home economics and physical education majors and should be elected by students desiring chemistry as a part of a liberal education.
- ✓ — L5. Quantitative Analysis. (3) Either semester. ✓ CROWELL  
A course in gravimetric and volumetric analysis, shorter than L6A-L6B. Prerequisite: 1A-1B. Required of petroleum engineers and of sanitary and municipal engineers.
- ✓ — L6A-L6B. Quantitative Analysis. (3-3) Yr. ✓ CROWELL  
Prerequisite: 1A-1B. Required of economic geologists and College of Chemistry students.
- ✓ — L8A-L8B. Elementary Organic Lectures. (3-3) Yr. ✓ MORGAN  
Prerequisite: 1A-1B, or 2A-2B. Required of pre-medical students, sanitary and municipal engineers, petroleum engineers, and College of Chemistry students.
- ✓ — L9. Elementary Organic Laboratory. (3) II. ✓ MORGAN  
Prerequisite: 8A. Required of petroleum engineers, pre-medicals, and College of Chemistry students.
- ✓ — E10. Organic and Food Chemistry. (4) II. ✓ Robertson  
Lectures or recitations, three hours; laboratory, three hours. Prerequisite: 1A-1B or 2A-2B. Required of home economics majors.
- ~~E11. Physiological Chemistry. (4) I. —~~  
~~Lectures or recitations, three hours; laboratory, three hours. Prerequisite: 8A and 9, or 10. Required of fourth-year home economics students.~~

## CLASSICAL LANGUAGES

- ARTHUR PATCH MCKINLAY, Ph.D., Assistant Professor of Latin.  
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 and 12, 9, or 6 in college.

Recommended: as much work as may be possible in Greek, Ancient History, French or German.

*Greek*

- ✓ - L1AB-L2AB. Beginning Greek, Attic Prose and Homer. (5-5) Yr. ✓  
MCKINLAY
- ~~L40A-L40B. Prose Composition. (1-1) Yr. MCKINLAY~~
- ✓ - L41A-L41B. Introduction to Plato; Euthyphro, Apology, Crito, Selections from the Phaedo. (3-3) Yr. ✓  
MCKINLAY

*Latin*

- ✓ - Lc. Third Year Latin: Ciceronian Prose. (3) I. ✓  
Open to those who have two years of high school Latin. *McKinlay*
- ✓ - Ld. Fourth Year Latin: Augustan Poetry. (3) II. ✓
- ✓ - L1. Cicero, De Senectute and Pliny's Letters. (3) I. ✓  
Open to those who have had four years of high school Latin. MCKINLAY
- ✓ - L3A-L3B. Latin, Prose Composition. (1-1) Yr. ✓  
This course may be taken in successive years for credit. MCKINLAY
- ✓ - L5. Horace; Odes and Epodes. (3) II. ✓  
This course follows Latin I. MCKINLAY
- ✓ - L2. Catullus and Livy. (3) I. ✓  
Prerequisite: course 5. *McKinlay*
- L6. Tacitus and Plautus. (3) II. ✓  
Prerequisite: course 2. *McKinlay*

## COMMERCE

- CLOYD H. MARVIN, Ph.D., Associate Professor of Commerce.  
— — —, Assistant Professor of Commerce.
- C. A. LEDEUC, M.B.A., Ph.D., Assistant Professor of Accounting.
- MARSHALL FRANCIS MCCOMB, A.B., LL.B., Lecturer in Business Law.
- J. R. DOUGLAS, Ph.D., Lecturer in Administration.
- F. M. COUCH, Lecturer in Credits and Collections.
- EVA M. ALLEN, Associate in Commercial Practice.
- ESTELLA B. PLOUGH, Associate in Commercial Practice.
- E. S. NELSON, A.B., Associate in Commerce.
- H. J. Wambse, Assistant in Economics.

*Edgar R. Penning*

*fees.*—A fee of \$2.50 will be charged for 16A, 16B, 15A, 15B.

## PREPARATION FOR THE MAJOR

Required: (Economics course) Commerce 1A-1B; History 2A-2B, 3A-3B; Political Science 1A-1B.

Required: (Secondary Teachers' course) Commerce 1A-1B, 3, 4, 5, 11, 13, 14A-14B, 15A-15B, 16A-16B, 18A-18B, 21A-21B.

- ✓ — L1A-L1B. Principles of Economics. (3-3) ~~(I-II)(II)~~ MARVIN and STAFF
- ✓ — L14A-L14B. Accounting Principles. (2-2) Yr. ✓ LEDEUC
- ✓ — L15A-L15B. Accounting Practice. (2-2) Yr. ✓ LEDEUC
- ✓ — E16A-E16B. Typing. (2-2) Yr. (I-II)-(II) ALLEN
- ✓ — E18A-E18B. Penmanship. (2-2) Yr. (I-II)-(II) PLOUGH
- ~~E20. Immigration. (2) Either semester. —~~
- ✓ — L21A-L21B. Elementary Law. (3-3) Either semester. ✓✓ MCCOMB
- ~~L26. Agricultural Economics. (3) I. —~~

## Business Courses in Law

- ✓ — L11A-L11B. Commercial Law. (2-2) Yr. ✓ MCCOMB
- ~~L41A-L41B. Advanced Commercial Law. (2-2) Yr. MCCOMB~~

## Accounting

- ✓ — E50A-E50B. Intermediate Accounting. (3-3) Yr. ✓ LEDEUC
- ✓ — E75. Cost Accounting. (3) I. ✓ LEDEUC
- ~~E76. Auditing. (3) II. LEDEUC~~

(Ferman, Zaner Cert 1 un credit)  
Exam. only

## Finance

- ✓ E51A-E51B. Elements of Money and Banking. (3-3) Yr. ✓ Nelson
- ~~E80A-E80B. Foreign Exchange and Foreign Investments. (2-3) Yr.~~
- ✓ E81A-E81B. Corporation Finance and Investments. (2-2) Yr. ✓ Herovic

## Transportation and Foreign Trade

- ✓ E57. Ocean Transportation. (3) I. ✓ Nelson
- ✓ E58. Railroad Transportation. (3) II. ✓ Nelson Perry
- ✓ E65. Marketing Methods in Foreign Trade. (3) II. ✓ Perry
- ✓ E93. Latin American Trade. (3) II. ✓ Nelson
- ✓ E94. Oriental Trade. (3) II. ✓ either semester Nelson

## Marketing

- ✓ E54A-E54B. Principles of Marketing. (3-3) Yr. I Wambold
- ✓ E55A-E55B<sup>E55B</sup> Psychology of Salesmanship. (3-3) Yr. I-II Perry
- ~~E56. Advertising Practice. (2) II. —~~
- ~~E58 Salesmanship Practice. (1) II. —~~
- ✓ E78. Problems of Retail Merchandising. (3) I. ✓ Perry
- ~~E79. Store Organization and Service. (3) II. —~~

## Business Administration

- ✓ E17A-E17B. Shorthand. (3-3) Yr. ✓ ALLEN
- ~~E24. Office Organization, Administration, and Procedure. (2) II. —~~
- ~~E67. Credits and Collections. (1) I. ✓ COUCH~~
- ~~E69. Elementary Statistics. (2) I. —~~
- ~~E70. Business Statistics. (2) II. —~~
- ✓ E90. Municipal Administration. (2-2) Yr. I ✓ DOUGLAS
- ✓ L99A-L99B. Business Organization and Administration. (3-3) Yr. ✓ MARVIN

## Education for Commerce

~~E86a. E86b. Part-Time Education for Commerce. (1-1) Yr.~~~~E94 Office Practice. Either semester.  
Hours to be arranged.~~*Marvin*  
The Staff✓ - E95. Part-Time Work. (2) Either semester.  
Hours to be arranged.*Perry*  
The Staff~~E96. Organization and Administration of Commercial Education. (3) II.~~~~MARVIN and STAFF~~~~E97. Curricula and Methods in Commercial Education. (3) I.~~~~MARVIN and Staff~~

## EDUCATION AND PHILOSOPHY

- ERNEST C. MOORE, Ph.D., LL.D., Professor of Education.

- CHARLES W. WADDLE, Ph.D., Professor of Education, in charge of Training.

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

- ETHEL I. SALISBURY, M.A., Associate Professor of Elementary Education.

- M. L. DARSIE, M.A., Assistant Professor of Education.

- WILLIAM A. SMITH, Ph.D., Assistant Professor of Education.

- CLARENCE HALL ROBISON, Ph.D., Assistant Professor of Education.

- ETHEL B. WARING, M.A., Assistant Professor of Education.

- \*ALMA M. PATTERSON, M.A., Instructor in Education.

- DONALD MACKAY, A.B., Associate in Philosophy.

*Katherine Martin**Cynthia B. Lewis*

PREPARATION FOR THE MAJOR

*Marvin & Haverick*  
*V. Kersey*

Required (Kindergarten-Primary course): Education 1, 2, 2A-2B, 12, 13, 16, X.

Required (Elementary course): Education 11, 12, 25, 2A-2B, X.

Required (Junior High School course): Education 2A, 25, 59.

✓ - E1. Introductory Kindergarten-Primary Education. (3) I. &amp; II.

MCLAUGHLIN &amp; Haverick

✓ - E2. Kindergarten-Primary Curricula and Methods. (3) II. &amp; I.

MCLAUGHLIN

✓ - E11. Methods of Teaching. (3) Either semester. ✓

ROBISON

Application of psychological principles to elementary school subjects and practices. Prerequisite: Education 2A.

\* Absent on leave, 1921-22.

- ✓ — E12. Organization and Administration of Public Schools in California. (3) Either semester. ✓ SMITH
- ✓ — E13. Kindergarten-Primary Practices, Goals, and Measurements. (3) II. ✓ I  
SMITH, WARING
- ✓ — E16. History of Kindergarten and Primary Education. (3) II  
McLAUGHLIN *Martin*
- ✓ — E25. Educational Sociology. (3) Either semester. ✓ Lewis DARSIE *Mack*
- ~~E26. Child Welfare. (3-3) Yr. [Not given in 1921-22.]~~ —
- ✓ — E27. The Common Branches, Selection and Organization. (3) I. ✓ Robison
- ✓ — E28. Kindergarten-Primary Plays, Games, and Stories. (3) I. ✓  
GREENWOOD
- This course is especially designed for the Smith-Hughes students.
- ~~E29. Kindergarten-Primary Supervision. (3) II. [Not given in 1921-22.]~~  
McLAUGHLIN
- ~~E35. Comparative Study of Primary Education. (3) I. [Not given in 1921-22.]~~ —
- ~~E36. Elementary Education. (3) I.~~ —
- ✓ — E52. Educational Measurements and Mental Diagnosis. (3) I. ✓ DARSIE  
Prerequisite: Teaching 10A.
- ~~E55. Rural Education. (3) Either semester.~~ —
- ~~E56. Rural School Supervision. (3) I-II. [Not given in 1921-22.]~~ —
- ~~E57. History of Education. (3) I. [Not given in 1921-22.]~~ —
- ~~E59. The Junior High School. (3-3) Yr. ✓~~ SMITH
- ✓ — E63. General Science for Junior High Schools. (3) II. ✓ ROBISON
- ~~E65. Educational Psychology. (3) I-II. [Not given in 1921-22.]~~ —
- ~~E75. Elementary School Supervision. (3) I-II.  
[Not given in 1921-22]~~ —
- ~~E76. Comparative Study of Elementary Education (3) I-II. [Not given in 1921-22.]~~ —
- ~~E80. Secondary Education. (3) II.~~ DARSIE
- ✓ — E85. A Study of the Vocations. (3) II. ✓ MAVERICK
- ✓ — E86. Vocational and Educational Guidance. (3) I-II. ✓ [Not given in 1921-22.] *Manning*
- ~~E87. Organization and Administration of Continuation Education. (3) Either semester. ✓ I-II (3-3)~~ *Kersey*
- ✓ — E88. Administration of Public Education in the United States. (3) II. ✓ SMITH

## Philosophy

- ✓ - L1A. Deductive Logic. (3) I. ✓  
 ✓ - L1B. Inductive Logic. (3) II. ✓  
 ✓ - L4. Introduction to Philosophy. (2) II. ✓  
 ✓ - E5. Ethics. (2) I. ✓

~~DARSH~~ *meach*  
~~MOORE, DARSH~~ *meach*  
 MOORE  
*meach*

## ENGLISH

- FREDERIC T. BLANCHARD, M.A., Associate Professor of English.  
 - HERBERT F. ALLEN, Ph.D., Assistant Professor of English.  
 - AUSTIN K. GRAY, M.A., Assistant Professor of English.  
 - SIGURD HUSTVET, Ph.D., Assistant Professor of English.  
 - ALICE O. HUNNEWELL, Instructor in English.  
 - EVALYN THOMAS, A.B., Instructor in English.  
 - RAYMOND JENKINS, Ph.D., Instructor in English.  
 - MARGARET S. CARHART, Ph.D., Instructor in English.  
 - HARRIET MACKENZIE, M.A., Instructor in English.  
 - KATHERINE COLLINS, M.A., Associate in English.  
 - L. C. LOCKLEY, A.B., Associate in English.

## EXAMINATION IN SUBJECT A (ENGLISH COMPOSITION)

(a) All intrants (both the Junior College and the Teachers' Course students) are required to take the examination in Subject A.

(b) All students who receive grade E or grade F must continue to take the examination (at the beginning of each semester) until they have passed it. A passing grade in Subject A is prerequisite to the Junior Certificate.

(c) All students (both the Junior College and the Teachers' Course students) who receive grade C or grade D must take English 1X.

(d) Students who receive grade A or grade B may elect English 1A.

## PREPARATION FOR THE MAJOR

Required for the English Course: 12 units which must include either English 1A-1B (6) or Public Speaking 1A-1B. Students who receive grade 1 in English 1X may offer English 1X-1B. (Oral English) English 3A-3B, 4A-4B.

- ✓ - L1X. English Composition. (3) Either semester. ✓

GRAY, CARHART, COLLINS

Required of all students who have received grade 3 in Subject A.



- ✓ - L1A-L1B. Advanced English Composition. (3) Either semester. ✓  
BLANCHARD, ALLEN, GRAY, CARHART, COLLINS  
Open to all students who have received grade 1 or grade 2 in  
Subject A or in English 1X.
- ~~L1C. English in Business Practice. (2) Either semester. —~~
- ✓ - L2A-L2B. History of English Literature. (3-3) Yr. BLANCHARD, ALLEN *Gray*
- ✓ - L6B. Frequent Writing. (3) Either semester. ✓ ALLEN *Hustace*  
For at least six weeks daily one-page themes; appointments for  
individual criticism. Limited to fifteen students.
- ~~L7A. Narration. (3) I. BLANCHARD  
For at least six weeks daily one-page themes; appointments for  
individual criticism. Limited to fifteen students.~~
- ~~L11A. Chaucer. (3) II. GRAY~~
- ✓ - L17B. Shakespeare. (3) ~~I~~ I BLANCHARD *Hustace*
- ✓ - L18. The Age of Milton. (3) II. ✓ *Hustace*
- ✓ - ~~L21A-L21B.~~ Nineteenth Century Poetry. (3-3) Yr. II ✓ *Allen*  
Either semester may be taken separately.
- ✓ - ~~L21C-L21D.~~ Nineteenth Century Prose. (3-3) Yr. II ✓ GRAY, *Jenkins*  
Either semester may be taken separately.
- ✓ - ~~L25A-L25B.~~ The English Novel. (3-3) Yr. I BLANCHARD
- Either semester may be taken separately.
- ✓ - L30A. American Literature. (3) ~~II~~ Either semester. BLANCHARD *Carhart*
- ✓ - L6C Dramatic Criticism (3) II ✓  
Oral English
- ~~L3A-L3B. Elements of Public Speaking. (2-2) Yr. —~~
- ✓ - L4A-L4B. Elements of Expression and Interpretation. (3-3) ~~III~~ Either sem. HUNNEWELL, THOMAS
- ~~L5A-L5B. Principles of Argumentation. (3-3) Yr. —  
Prerequisite: Public Speaking 1A-1B (or English 1A-1B) and the  
consent of the instructor.~~
- ✓ - L10A-L10B. Dramatic Interpretation. (3-3) Yr. ✓ THOMAS

## Method Courses

- ✓ - E10A. Primary Reading: Grades 1-3. (3) ~~Either semester.~~ <sup>II</sup> HUNNEWELL
- ✓ - E10B. Primary and Intermediary Reading: Grades 1-6. (3) ~~Either semester.~~ <sup>I</sup> HUNNEWELL
- ✓ - E12. English in the Upper Grades. (3) ~~Either sem.~~ <sup>mechanic</sup> GREENWOOD
- ~~E15A. Children's Literature. (3) II.~~
- ✓ - E15B. The Art of Story Telling. (3) ~~Either sem.~~ HUNNEWELL
- ✓ - E61. Junior High School English. (2) I. ✓ <sup>mechanic</sup>

## GEOGRAPHY

- MYETA L. McCLELLAN, B.S., Assistant Professor of Geography.
- FORD A. CARPENTER, LL.D., D.Sc., Lecturer in Meteorology.
- RUTH E. BAUGH, Associate in Geography.

## PREPARATION FOR THE MAJOR

Required: Geography 1A, 1B, 1C, 2C, 29.

- ✓ - L1A. Fundamentals of Geography. (3) Either semester. ✓  
BAUGH, McCLELLAN
- ~~L1B. Elementary Meteorology. (3) II. BAUGH, McCLELLAN~~
- ✓ - L1C. Elementary Physiography. (3) Either semester. ✓ BAUGH
- ✓ - L2C. Map and Field Study of Physiography. (1) Either semester. ✓ Baugh
- ✓ - L3A. Applied Meteorology. (3) I. ✓ CARPENTER
- ✓ - L4. Introduction to Economic Geography. (3) I. ✓ McCLELLAN
- ✓ - L5. The Geography of International Trade. (3) II. ✓ McCLELLAN
- ~~L15. California. (3) I. BAUGH, McCLELLAN~~
- ✓ - L16A. North America. (3) II. ✓ Baugh
- ✓ - L16B. South America. (3) II. ✓ McCLELLAN
- ~~L16C. Europe. (3) II. BAUGH~~
- ✓ - E29. The Teaching of Geography. (3) Either semester. ✓ McCLELLAN
- ~~E60. Economic Geography of South America. (3) I. McCLELLAN~~
- ~~E61. Economic Geography of the Orient. (3) II. McCLELLAN~~
- L3 B Meteorology (1) ~~II~~ I ✓ Carpenter

**GEOLOGY AND MINERALOGY**

- FREDERICK P. VICKERY, B.S., Instructor in Geology.

Laboratory Fees.—The deposit required for course 1A-1B is \$5.

PREPARATION FOR THE MAJOR

Required: Geology 1A; Mineralogy 1A and 1B, 2AB; Physics; Chemistry.

*Geology*

- ✓ - L1A. General Geology: Dynamical and Structural. (3) Either semester. *Vickery*  
 Sections limited to thirty students each. Tuesday afternoons and four Saturdays all day. Prerequisites: Physics and Chemistry.
- ✓ - L1B. General Geology: Historical. (2) ~~III~~ Either semester *Vickery*  
 Prerequisite: Geology 1A.
- ✓ - L 5: \_\_\_\_\_ (U) I ✓ *Vickery*  
*Mineralogy*
- ~~L2A-L2B. Determinative Laboratory. (4) Either semester. \_\_\_\_\_  
 Prerequisite: Chemistry.~~
- ✓ - L3AB. Crystallography and Crystallographical Laboratory. (3) II. *Vickery*

**HISTORY**

- FRANK J. KLINGBERG, Ph.D., Associate Professor of History.
- MELVA LATHAM, A.B., Assistant Professor of History.
- L. T. LOWREY, Ph.D., Assistant Professor of History.
- LUCY M. GAINES, M.A., Instructor in History.

PREPARATION FOR THE MAJOR

Required: any 3-unit year course in History.

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

- ✓ - L2A-L2B. History of England and Greater Britain. (2-2) Yr. ✓ *KLINGBERG Lowrey*
- ✓ - L4A-L4B. Social and Political History of Modern Europe. (3-3) Yr. ✓ *KLINGBERG Lowrey*

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University of California

Lowrey, Gaines

- ✓ - L7A U.S. Hist. (3) I
- ✓ - E11. Primary History. (2) Either semester. ✓ LATHAM  
Prerequisite: Psychology 2A.
- ✓ - ~~L17A~~-L17B. History of the United States. (R-3) ~~I~~ II ✓  
KLINGBERG, GAINES, LATHAM
- ✓ - L31. The Renaissance. (3) I. ✓ KLINGBERG
- ✓ - L42. The French Revolution. (3) II. ✓ KLINGBERG
- ✓ - E45. The Industrial History of the United States. (3) ~~Either~~ LATHAM
- ✓ - E60. The Social Sciences for Junior High Schools. (2) I. ✓ LATHAM
- ~~-E65. Ancient History. (3) I, II. \_\_\_\_\_~~
- x ~~-E66. Mediaeval History. (3) I, II. \_\_\_\_\_~~
- ✓ - E75. Contemporary History. (2) Either semester. ✓ GAINES
- ✓ - L83A-L83B. The Expansion of Europe Since the Fifteenth Century. (2-2) Yr. ✓ KLINGBERG
- ✓ - E89A. Pacific Coast History. (2) Either semester. ✓ GAINES
- ✓ L70A History (2) Lowrey (v. folder on courses); I  
Constitutional Hist. of U.S.

### HOME ECONOMICS

- ISABEL BEVIER, Ph.M., D.Sc., Lecturer in Home Economics.
- BERNICE ALLEN, Instructor in Home Economics.
- AGNES E. MACPHERSON, Associate in Home Economics.
- ORABEL CHILTON, B.S., Associate in Home Economics.
- MAUD EVANS, Associate in Home Economics.
- ELIZABETH LATHROP, Associate in Home Economics.
- FLORENCE A. WILSON, A.B., B.S., Associate in Home Economics.
- PAULINE LYNCH, Associate in Home Economics.
- FLORENCE M. HALLAM, Associate in Home Economics.

*Laboratory Fees.*—The fee required for courses 1A, 1B, 1C, 2, 43, 69, and 75 is \$1; for courses 25, 33, 34, 47, 77, 85 it is \$1.50; for courses 9A, 9B, 10, 59, 83, 84 it is \$2.75; and for course 78 it is \$5.

### PREPARATION FOR THE MAJOR

Required: Chemistry 1A-1B, 8, 5; Biology 1.

Recommended: Biology 10; Commerce 1A-1B; Physics 2A-2B; Chemistry 9.

Clothing and Textiles

- ✓ ~~E1A-E1B. Elementary Clothing and Dressmaking. (3-3) ~~WILSON~~ (I-II)(II) *WILSON Lynch*~~
- ✓ ~~E1C. Elementary Clothing and Dressmaking. (3) ~~WILSON~~ (I-II)(II) *WILSON Lynch*~~  
Taken in lieu of Home Economics 1A-1B. Prerequisite: two years' high school sewing.
- ✓ ~~E2. The Study of Dress. (3) II. ✓~~ LATHROP  
Prerequisite: Home Economics 1B. Open only to home economics vocational students.
- ✓ ~~E25. Elementary Millinery. (2) Either semester. ✓~~ LATHROP
- ✓ ~~E58. Textiles. (3) II ✓~~ WILSON
- ✓ ~~E75. Advanced Dressmaking. (3) Either semester~~ LATHROP
- ✓ ~~E77. Advanced Millinery. (3) I ✓~~ LATHROP
- ~~E76. Advanced Textiles. (3) I.~~ WILSON
- ✓ ~~E60. (3) I~~ WILSON

Food and Nutrition

- ✓ ~~E9A-E9B. Elementary Food. (3-3) ~~WILSON~~ (I-II)(II) *ALLAN LYNCH Evans*~~
- ✓ ~~E9C. Elementary Food. (3) I. ✓~~ LYNCH *ALLAN*  
To be taken in lieu of Home Economics 9A-9B. Prerequisite: two years' high school cookery.
- ~~E10. Family Food. (3) II.~~ EVANS  
~~Prerequisite: Home Economics 9A. Open only to home economics vocational students.~~
- ✓ ~~E33. Elementary Dietetics. (3) II ✓~~ CHILTON  
Prerequisite: Chemistry 10.
- ✓ ~~E34. Elementary Dietetics. (3) ~~WILSON~~ (I-II)(II) *CHILTON Evans*~~  
Prerequisite: Chemistry 10. Open only to home economics vocational students.
- ✓ ~~E59. Family Food. (3) II.~~ *Chilton* ~~WILSON~~  
Prerequisites: Home Economics 9A-9B, 33.
- ✓ ~~E83. Experimental Food. (3) I. ✓~~ CHILTON  
Prerequisite: Home Economics 59.
- ~~E84. Lecture-Demonstration Food. (3) II.~~ CHILTON  
~~Prerequisite: Home Economics 59.~~
- ~~E85. Advanced Dietetics. (3) II.~~ CHILTON  
~~Prerequisites: Home Economics 33 and Chemistry 11.~~

E 58 This is the name on 1A of 1922-23

E 59A - (3) I - E 59B (4) II ✓

## Administration

- ✓ — E43. Household Administration. (2) II. ✓ **MACPHERSON, EVANS** *Review*  
Prerequisites: Chemistry 10 and Physics 11. Open only to home economics vocational students.
- ✓ — E69. Household Administration. (3) II. ✓ **MACPHERSON, EVANS**  
Prerequisites: Chemistry 10 and Physics 11.

## Education

- ✓ — E24. Home Economics Education. (3) ~~Either semester~~ <sup>I-II</sup> **EVANS**  
For general professional and kindergarten-primary students.
- ✓ — E47. Home Economics Demonstration. (2) II. ✓ **MACPHERSON**  
Prerequisites: two food and two clothing courses.
- ✓ — E49. Home Economics Education. (3) Either semester. **MACPHERSON** *Review*  
Prerequisites: Home Economics 1B, 9B, and Education 11.

## MATHEMATICS

- GEORGE E. F. SHEERWOOD, M.A., Associate Professor of Mathematics.
- HARRY M. SHOWMAN, E.M., M.A., Assistant Professor of Mathematics.
- MYRTLE COLLIER, B.S., Assistant Professor of Mathematics.
- HARRIET E. GLAZIER, M.A., Assistant Professor of Mathematics.
- GUY H. HUNT, C.E., Instructor in Surveying.
- *Frederick Leonard*  
Fees.—The fee required for courses 11A and 11B is \$5; for course 13 there is a minimum fee of \$20. *Worthington*

## PREPARATION FOR THE MAJOR

Required (Mathematics course): Mathematics 3A, 1, 5, 6, 9.

Recommended: Physics, Astronomy, French.

- ✓ — LC. Trigonometry. (3) Either semester. ✓ **HUNT, ~~GLAZIER~~** *Leonard Collier*  
Prerequisites: Elementary Algebra and Geometry.
- ✓ — L1. Advanced Algebra. (3) Either semester. ✓ **GLAZIER, COLLIER, HUNT** *Worthington*
- ✓ — L2. Mathematical Theory of Investment. (3) ~~Either semester~~  
**SHOWMAN, SHEERWOOD**

Prerequisite: course 1 or its equivalent.

(4) I, 2  
(3) II

- ✓ - L3A-L3B. Plane Analytic Geometry and Differential Calculus. (3-3) ~~Yr. I-II~~ <sup>Washington</sup> COLLIER, SHERWOOD <sup>Showman</sup>  
Prerequisites: Plane and Solid Geometry, Plane Trigonometry and at least one and one-half years of Algebra.
- ✓ - L3B-4A. Differential and Integral Calculus. (6) I. SHERWOOD, ~~SHOWMAN~~ <sup>Glazier</sup>  
For students in engineering, beginning calculus in the second year.
- ✓ - L4A-L4B. Solid Analytic Geometry and Integral Calculus. (3-3) Yr. ~~I~~ <sup>Glazier</sup>  
SHERWOOD, SHOWMAN
- Prerequisite: course 3A-3B.
- ~~E5. Analytic Geometry. (5) I. GLAZIER~~  
~~Prerequisites: courses C and 1.~~
- ✓ - L6. Introduction to Projective Geometry. (3) ~~Either semester~~ <sup>II</sup> GLAZIER
- ~~L9. Differential and Integral Calculus. (5) II. SHERWOOD~~  
~~Prerequisite: course 8.~~
- ✓ - <sup>Civil Engineering</sup> ~~3 Summer Surveying (Summer) (3) Showman~~
- ✓ - L11A-L11B. Plane Surveying. (3-3) Yr. ~~I~~ <sup>SHOWMAN, HUNT</sup>  
Prerequisites: Plane Trigonometry and Geometrical Drawing.
- ~~L13. Summer Class in Plane Surveying. (3).~~  
~~SHOWMAN, HUNT and STAFF~~  
Four weeks. Prerequisite: course 1A-1B.
- ✓ - L18. The Materials of Engineering Construction. (2) II. ~~I~~ HUNT  
Prerequisite: sophomore standing.
- ✓ - L1 ~~Elements of Astronomy~~ <sup>Astronomy</sup> (3) ~~I~~ <sup>Leonard.</sup>
- ✓ - L7. Surveyor's Course in Spherical Trigonometry and Astronomy. (1) II. ~~I~~ <sup>SHOWMAN, HUNT</sup>  
Prerequisites: Plane Trigonometry, Solid Geometry and course C. E. 11A, and registration in C. E. 11B, or by permission of the instructors.

Method Courses.

- ✓ - E10. Arithmetic. (3) Either semester. ~~I~~ COLLIER, GLAZIER <sup>Washington</sup>  
Prerequisite: Psychology 2A.
- ✓ - E10A. Primary Number. (3) Either semester. ~~I~~ COLLIER
- ✓ - E12. Business Mathematics. (2) I. ~~I~~ HUNT
- ~~E62. Junior High School Mathematics. (2) II. COLLIER, GLAZIER~~
- ✓ - E64. Modern Geometry. (3) I. ~~I~~ SHERWOOD

## MECHANIC ARTS

- HAROLD W. MANSFIELD, Assistant Professor of Mechanic Arts.  
 - JOHN B. PHILLIPS, Associate in Mechanic Arts.  
 - JAMES W. MARSH, Associate in Mechanic Arts.  
 - FOSS R. BROOKWAY, Associate in Mechanic Arts.  
 - CARLYLE F. PIERSON, Teacher of Manual Arts in the Training School.  
 - ADRIAN D. KELLER, Associate in Mechanic Arts.  
 - \_\_\_\_\_, Associate in Mechanic Arts.

*Spurgeon Crosby*  
*David Babel*  
*CA. Truesdell*  
*H. Carleton*

*W. J. Masak*  
 Laboratory Fees.—The deposit required for courses 7, 8A, 8B, 9A, 9B, 10A, 10B, 24A, 24B, 51A, 51B, 60A, 60B, 61, 75A, 75B, 76A, 76B is \$3.

- ✓ LCA-LCB. Engineering Drawing. (3-3) Yr. ✓ *ABEL Masak*  
 - Meets requirements in Instrumental Drawing C.
- ✓ L2C. Drawing. (3) ~~Either semester.~~ I *Masak*  
 Descriptive Geometry.
- ✓ L3. Mechanical Engineering. (3) ~~Either semester.~~ II *MANSFIELD Masak*  
 Machine Design.
- ✓ E4. Architectural Drawing. (3) ~~Either sem.~~ *Masak*  
 ✓ L5A-L5B. Architecture. (3-3) ~~Fr. (I-II) (I)~~ *Masak*  
 ✓ L6A-L6B. Architecture. (3-3) ~~Fr. (I-II) (II)~~ *Masak*  
 Water Color, Pen and Ink, Modeling. See Fine Arts.
- ✓ L7. Automobile and Truck Construction. (3) ~~Either semester.~~ I *BROOKWAY*
- ✓ L8A-L8B. Shop Work. (2-2) Yr. ✓ *PIERSON Keller*  
 Pattern making and foundry practice.
- ✓ L9A-L9B. Shop Work. (2-2) Yr. ✓ *PHILLIPS Keller*  
 Machine work in iron.
- ✓ E10A-E10B. Shop Work. (3-3) Yr. ✓ *PIERSON Keller*  
 Woodwork.
- ~~L12. Shop Work. (3) In Summer Session.~~
- ✓ E24A-E24B. Shop Work. (3-3) ~~Fr. I-II~~ *PIERSON Keller*  
 Pattern making and molding.
- ~~E50A-E50B. Applied Electricity. (3-3) Fr.~~ *MARSH*
- ✓ E51A-E51B. Applied Electricity. (3) ~~Fr. I~~ *HANCOCK Truesdell*  
 Storage battery and bench work.
- ✓ E52A-E52B. Applied Mechanics. (2-3) ~~Fr. II~~ *ABEL*
- ✓ L1C Heat, Power Engineering (2) I *Masak*  
 F Building Construction (2) II *Newton*  
 Architecture (2) II *Truesdell*



<del>E57. Automotive Laboratory. (3) Either semester.</del>	MARSH
<del>E60. E60B. Shop work. (3-3) Yr. Foundry practice.</del>	—
E61. Shop Work. (3) Either semester. <u>II</u> Forging.	CROSBY
<del>E75A-E75B. Shop work. (3-3) Yr. Elementary machine shop practice.</del>	PHILLIPS
<del>E76A-E76B. Shop Work. (3-3) Yr. Advanced shop practice.</del>	PHILLIPS

### MILITARY SCIENCE AND TACTICS

- GUY G. PALMER, Colonel, U. S. Army (Retired), Associate Professor of Military Science and Tactics.
- JOHN E. CREED, Major, U. S. A., Assistant Professor of Military Science and Tactics.
- W. G. BINGHAM, Captain, U. S. Army, Assistant Professor of Military Science and Tactics.

The courses in military training are those prescribed by the War Department for infantry units of the senior division of the Reserve Officers' Training Corps. The United States furnishes arms, equipment, uniforms, and some text books for the use of students belonging to such units. The University being responsible for text books and uniforms furnished by the United States requires the student to deposit with the Comptroller \$30 to cover the cost of the text books and uniforms issued him. This deposit *must* be made before the student files his study list; the deposit is refunded at the close of the academic year or upon the student's withdrawal, provided the student then returns in good condition all articles issued him. An amount necessary to replace articles not returned by the student will be retained by the Comptroller.

Students who are members of the National Guard or of the U. S. Naval Reserve Force are authorized to wear their guard or naval uniform in their military training at the University, and, upon application to the Supply Officer at the Military Science Building, may be excused from paying the deposit for uniform. Such students will pay a deposit of \$3 to cover cost of text books issued them.

## LOWER DIVISION COURSES

The lower division or basic courses are prescribed for all first-year and second-year undergraduate male students who are citizens of the United States, able-bodied and under twenty-four years of age at the time of admission to the University. A first-year or second-year student claiming exemption because of non-citizenship, physical disability, or age will present to the Department of Military Science and Tactics a petition, on the prescribed form, for such exemption. Pending action on his petition the student will enroll in the courses prescribed for his year and enter upon the work of such courses. The advanced course, Senior Division, is provided at the University of California, Berkeley, and coincides with the academic junior and senior years. Upon graduation and satisfactory completion of the advanced course those students recommended by the head of the institution and the professor of military science and tactics are commissioned Second Lieutenants in the Officers' Reserve Corps.

- ✓ → L1A-L1B. Basic Military Training (First Year). (1½-1½) Yr. ✓  
PALMER
- ✓ — L2A-L2B. Basic Military Training (Second Year). (1½-1½) Yr. ✓  
BINGHAM

## MUSIC

- W. J. KRAFT, Mus. Bac., Lecturer in Music.  
- FRANCES WRIGHT, Associate Professor of Public School Music.  
- VERNON SPENCER, Assistant Professor of Music.  
- MABEL O. BARNHART, Associate in Music.  
- BERTHA VAUGHN, Teacher of Voice.

*(part am.)* - Florence Bookwalter (part am.) *by a Westphalinger*

## Applied Music Courses

- ✓ → L1A-L1B. Choral Practice. (1-1) Yr. ✓  
All students who sing are eligible. KRAFT
- ✓ — L2A-L2B. Orchestra Practice. (1-1) Yr. ✓  
All students who play an orchestral instrument are eligible. KRAFT
- ✓ — L2C-L2D. Piano Ensemble. (2-2) Yr. ✓ *Bookwalter* BARNHART  
Four and eight hand piano arrangements of symphonic music.
- ✓ — E5A-E5B. Band Practice. (1-1) Yr. ✓ *Westphalinger*
- ~~✓ — E1A-E1B. Voice. (2-2) ~~I, II~~ Yr. ✓~~  
Tone production; repertoire. VAUGHN
- ✓ — Voice (no number.)

- ✓ — L12A-L12B. Melodic Dictation. (3-3) Yr. ✓ *Spencer, Kraft*
- One, two, and three part songs.
- ✓ — E13A-E13B. Orchestral Instruments. (1-1) Yr. ✓ **BARNHART**
- Elementary technique.
- ~~E15A-E15B. Piano. (2-2) Yr.~~
- ✓ — E65A-E65B. Piano. (2-2) Yr. ✓ *Spencer*
- Advanced piano literature.

Appreciation Courses

- ✓ — L3A-L3B. Music Literature. (3-3) Yr. ✓ *Kraft* **BARNHART**
- ✓ — E63A-E63B. Music Literature. (2-2) Yr. ✓ **BARNHART**  
*Barnhart*

Theory Courses

- ✓ — L4A-L4B. Harmony. (3-3) Yr. ✓ *Spencer*
- ✓ — E8A-E8B. Music Education. (3-3) Yr. ✓ **WRIGHT**
- Nature of music; relation of harmony, melody.
- ✓ — E55A-E55B. Composition. (3-3) Yr. ✓ *Spencer*
- ✓ — E60A-E60B. Advanced Composition and Orchestration. (3-2) Yr. ✓ *Spencer*  
*Kraft*
- ✓ — E64A-E64B. Form and Analysis. (2-2) Yr. ✓ **BARNHART** *Kraft*
- Designs of the simple and compound forms; methods of structural treatment.

Method Courses

- ✓ — E10A. Teachers' Course in Music. (2) Either semester. ✓ *Barnhart*  
**WRIGHT**
- ~~E11A-E11B. Kindergarten Primary Music. (2-2) Yr. ✓ **WRIGHT** *OK Sect.*~~
- ✓ — E21A-E21B. Music Observation. (1-1) Yr. ✓ **WRIGHT**
- Elementary school teaching.
- ✓ — E59A-E59B. Conducting. (2-2) Yr. ✓ *Kraft*
- ✓ — E91. Music Observation. (3) Either semester. ✓ **WRIGHT**
- Secondary school teaching.

E11A OK.

**PHYSICAL EDUCATION FOR MEN**

- FREDERICK W. COZENS, M.A., Assistant Professor of Physical Education.
- A. W. DOWDEN, A.B., Associate in Physical Education for Men.
- HARRY TROTTER, Assistant in Physical Education.
- WILLIAM J. NORRIS, M.D., Physician for Men.

**PREPARATION FOR THE MAJOR**

Required: Physical Education 1AB, 7AB, 8AB, 10BD; Chemistry 1A; Biology 1A.

**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 University course. Tennis shoes must be furnished by the individual and may be obtained at club prices by applying to the book store. The University provides for the laundry of suits.

*Medical Examination.*—All students entering the University or returning 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 Junior College 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 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. 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.*—Junior College men are required to take two hours per week for four semesters ( $\frac{1}{2}$  unit credit per semester). Teachers' course men take two hours per week of practice work for two semesters, two hours per week of recreation for four semesters, and two hours per week of theory for one semester (see courses 21AB, 22AB, and 16ABOD).

*gives number of course*

**Majors in the Teachers' Course.**—Men whose major is physical education should consult the suggested schedules for Physical Education under the heading Teachers' Curricula in this announcement. Professional courses in the Department of Physical Education for Women are open to men. The chairman of the department should be consulted before registration.

Notices concerning all phases of the work of the department will be posted on the bulletin board of the Men's Gymnasium and must be read carefully by all. Men will be held strictly accountable for all regulations so posted.

Note concerning courses offered: The letters A and B after course numbers denote the work of the first and second semesters of the freshman year. The same holds true for the letters C and D in the sophomore year.

- L1. Hygiene. (1) Either semester. ✓
- L1ABCD. Gymnastics. ( $\frac{1}{2}$ ) Either semester. *harris staff*
- L2ABCD. Special Gymnastics. ( $\frac{1}{2}$ ) Either semester. DOWDEN  
Corrective gymnastics.
- L3ABCD. Track. ( $\frac{1}{2}$ ) Either semester. TROTTER
- L4BD. Baseball. ( $\frac{1}{2}$ ) II. COZENS  
Open to men enrolled on the Varsity or Freshman squads.
- L5ABCD. Basket-ball. ( $\frac{1}{2}$ ) Either semester. DOWDEN  
Men must have passed physical tests in order to enroll in this work.
- L6ABCD. Tennis. ( $\frac{1}{2}$ ) Either semester. —  
All men enrolled in tennis must pass the physical tests of the department.
- L7ABCD. Boxing. ( $\frac{1}{2}$ ) Either semester. DOWDEN
- L8ABCD. Wrestling. ( $\frac{1}{2}$ ) Either semester. —
- L10BD. Swimming. ( $\frac{1}{2}$ ) II. DOWDEN  
Open to men enrolled on the Varsity swimming team.
- L13AC. American Football. ( $\frac{1}{2}$ ) I. TROTTER, DOWDEN  
Open to men enrolled on the Varsity or Freshman squads.
- L14ABCD. Class Games. ( $\frac{1}{2}$ ) Either semester. *cozens*
- L15ABCD. Handball. ( $\frac{1}{2}$ ) Either semester. COZENS  
Open to men who have passed tests. Tournaments under supervision. Classes limited to sixteen men.
- L16ABCD. Recreation. ( $\frac{1}{2}$ ) Either semester. COZENS
- ~~E21AB. History and Theory of Physical Education. (2) I. COZENS~~
- ~~E22B. Practice in Physical Training Activities. (2) I II COZENS~~

*from PE 1/2 m. 2 = 1 sem*

~~E 29 B + D Practice (2 m) II *cozens*~~

~~E 46 Nature & Functions of Play (2) II *cozens*~~

## PHYSICAL EDUCATION FOR WOMEN

- — —, Director of Physical Education for Women.
- LUCILE B. GRUNEWALD, B.S., Associate in Physical Education.
  - GLADYS PALMER, Associate in Physical Education.
  - KATHERINE HERSEY, Associate in Physical Education.
  - EMILY D. JAMESON, Associate in Physical Education.
  - EDITH HARSHBERGER, A.B., Associate in Physical Education.
  - BERTHA WARDELL, Associate in Physical Education.
  - FLORENCE SUTTON, Assistant in the Department of Physical Education for Women.
  - NORMA GOULD, Assistant in Gymnastics.
  - KATHERINE CLOSE, M.D., Lecturer in Hygiene.
  - LILLIAN RAY TITCOMB, M.D., Physician for Women.
  - RUBY I. MCLEAN, R.N., Nurse.

## WOMEN'S ATHLETIC ASSOCIATION

The Women's Athletic Association coöperates with the Department of Physical Education in promoting a high physical efficiency among the women of the University by encouraging many forms of physical activities. The association supplements the work of the department by organizing school teams and arranging for contests in the following sports:

Fall season: field hockey, swimming, tennis, golf.

Winter season: basket-ball, indoor baseball.

Spring season: outdoor baseball, field and track, swimming, archery.

Dancing is offered throughout the year.

- X — L2. Hygiene. ~~(1) I.~~ (2) I. (2) I. (2) I. Either sem. TITCOMB
- ~~L5. Hygiene. (2) I.~~ MCLEAN
- First aid. Prerequisite: Biology 35.
- X — L9. Hygiene. (2) Either semester. II MCLEAN
- Home care of the sick.
- X — E10. Physical Education. (2) Either semester. ✓ Hersey, Jameson
- X — E11. Physical Education. (2) Either semester. ✓ Hersey, Jameson
- X — E12A-E12B. Physical Education. (2-2) Yr. ✓ Hersey, Jameson
- X — E15. Kinesiology. (1) I. ✓ Jameson
- Prerequisite: Biology 35.

- E16A-E16B. Therapeutic Gymnastics. (3) ~~Either semester~~ GRUNEWALD  
Prerequisite: 15.
- ~~E27. Therapeutic Gymnastic Clinic. (4) II GRUNEWALD  
Prerequisite: 16.~~
- E29. Special Methods in Leadership of Physical Training Activities.  
(2) ~~II~~ I Palmer  
Prerequisites: 52, 60, 70A, 71.
- E31A-~~E31B~~. Special Methods. (2-~~2~~) Fr. II Harshberger  
Prerequisite: E29.
- ~~E35. Administration of Physical Education. (3) II. —  
Prerequisite: 31B.~~
- E40A-E40B. Physiology. (3) Fr. II CLOSE  
Prerequisite: Biology 10, Chemistry 2A, or equivalents.
- E42A-E42B. Normal Diagnosis. (3) Fr. II CLOSE  
Prerequisite: 40A.
- E45. History of Physical Education. (2) II. Hervey
- E46. Nature and Functions of Play. (2) II. ~~ment~~ Hervey
- E48. Child Development. (2) I. Hervey  
Prerequisite: Psychology 2B, Biology 35.
- ~~E50. Principles of Physical Education —  
Prerequisite: Psychology 2B, Physical Education 40.~~
- L52AB. Prescribed Course for Freshmen. (1/2) Either semester WARDELL Staff  
Required of all students not enrolled in 53AB during their first year.
- L52CD. Prescribed Course for Sophomores. (1/2) Either semester. WARDELL Staff  
Required of all students not enrolled in 53CD during their second year.
- L53ABCD. Corrective Gymnastics. (1/2) Either semester. GRUNEWALD, Harshberger  
Required instead of course 52AB of first-year students whose medical  
and physical examination indicate the need of corrective exercises.
- L60ABCD. Folk Dancing. (1/2) Either semester. ✓ WARDELL
- L61ABCD. Aesthetic Dancing. (1/2) Either semester. ✓ WARDELL
- L62AB. Aesthetic Dancing. (1/2) Either semester. ✓ II WARDELL  
Prerequisite: 61CD.
- L65AB. Gymnastics. (1/2) Either semester. ✓ GRUNEWALD Harshberger  
Prerequisites: 52CD.
- ~~L66AB. Gymnastics. (1/2) Either semester. GRUNEWALD  
Prerequisite: 65CD.~~
- E70AB. Plays and Games. (1/2) Either semester. I ✓ GRUNEWALD

L 52 AB (1) I Staff  
L 52 CD (1) II Staff

- X ~~E71ABCD. Athletics. (1/2) Either semester.~~ ✓ *Staff*  
 X ~~E72ABC. Athletics. (1/2) Either semester.~~ ✓ *Palmer Staff*  
 X ~~E72CD. Prerequisite: 71CD. (1) I~~ ✓ *Palmer*  
 X ~~E73ABCD. Athletics. (1/2) Either semester.~~ ✓ *I Palmer Staff*  
 X ~~E73CD. Prerequisite: 72C. (1) II~~ ✓ *Palmer*  
~~E74ABCD. Athletics. (1/2) Either semester.~~  
 X ~~E75ABC. Tennis. (1/2) Either semester.~~ ✓ *putton*  
~~E76ABC. Swimming. (1/2) Either semester.~~

NOTE.—To fulfill recreation requirement students in the Teachers' Courses may select courses from 52 to 76, observing the prerequisites.

- X ~~E71AB Athletics (1) I~~ ✓ *Palmer*  
 X ~~E71CD (1) II~~ ✓ *Palmer*

### PHYSICS

- JOHN MEAD ADAMS, Ph.D., Associate Professor of Physics.  
 - L. E. DODD, Ph.D., Assistant Professor of Physics.  
 - A. H. WARNER, A.B., B.S., Associate in Physics.  
 - LEO DELSASSO, Assistant in Physics. *- J. B. Elder*

**Laboratory Fees.**—The deposit required for each course consisting wholly or in part of laboratory work is \$4 per semester.

### PREPARATION FOR THE MAJOR

Required: Physics 1A-1B, 4A-4B, or 2A-2B, 3C-3D; Mathematics 3A-3B; Chemistry 1A-1B.

Recommended: French.

- ✓ ~~L1A-L1B. General Physics. (3-3) Yr.~~ ✓ *ADAMS*  
 Mechanics, sound and heat.  
 ✓ ~~L2A-L2B. General Physics. (3-3) Yr.~~ ✓ *Dodd*  
 Mechanics, sound, heat, light, electricity. Prescribed for pre-medical and agricultural students and open to other students who are taking course 3A-3B.  
 ✓ ~~L3A-L3B. Physical Measurements. (1-1) Yr.~~ ✓ *Dodd + Elder*  
 Prescribed for pre-medical students and open to other students who are taking course 2A-2B.  
 ✓ ~~L4A-L4B. General Physics. (3-3) Yr.~~ ✓ *ADAMS*  
 Light and electricity. Prescribed for students in engineering and chemistry.



✓ L5. Electrodynamics. (3) II. ✓

Open to students who have had physics 4A and Mathematics 4A.  
Physics 4A and Mathematics 4A.

*Warner*

✓ E11. Applications of Physics in the Household. (3) I. ✓

Prescribed for students in Home Economics.

*Dodd*

**POLITICAL SCIENCE**

- C. E. MARTIN, Ph.D., Assistant Professor of Government.

*L. J. Courney 3 in*

✓ L1A-L1B. Government. (3-3) Yr. ✓

MARTIN, —

✓ L2. Principles and Problems of Politics. (3) I. ✓

MARTIN

✓ L3A-L3B. International Law. ~~3-3~~ Yr. ✓

MARTIN

✓ L5A-L5B. Foreign Relations of the United States. (3-3) Yr. ✓

MARTIN

✓ L8. American Government. (3) II. ✓

MARTIN

✓ L12. State Government. (3) II. ✓

*Lowrey*  
*Rouney*

✓ 9 A. (no credit) —

**PRACTICE TEACHING**

- CHARLES W. WADDLE, Ph.D., Professor of Education in charge of Training.
- ETHEL I. SALISBURY, M.A., Associate Professor of Elementary Education.
- ETHEL B. WARING, M.A., Assistant Professor of Education.
- BERTHA E. WELLS, Assistant Supervisor of Practice Teaching.
- MARGARET M. CAMPBELL, B.S., Teacher in charge of Ninth Grade.
- KATHERINE KAHLEY, A.B., Teacher in charge of Eighth Grade.
- MABEL C. JACKSON, A.B., Teacher in charge of Seventh Grade.
- EMMA J. ROBINSON, Teacher in charge of Sixth Grade.
- LULU M. STEDMAN, Teacher in charge of Fifth Grade.
- KATHERINE SPIERS, B.L., Teacher in charge of Fourth Grade.
- EDITH HOPE RINGER, Teacher in charge of Third Grade.
- EDITH WALLOP, Teacher in charge of Second Grade.
- ETHEL BRITTO, Teacher in charge of First Grade.
- ADELAIDE ADAMS SAMUELS, Teacher in charge of Sub-Primary Class.
- BARBARA GREENWOOD, Teacher in charge of the Kindergarten.
- MARY E. DOUGLASS, M.A., Assistant Teacher in the Kindergarten.
- MADELINE CROWELL, Training Teacher in charge of Home Economics.
- HELEN B. KELLER, Supervisor of Adjustment Room.
- FLORENCE M. HALLAM, A.B., Associate in Home Economics.
- BLANCHE KELLS, Teacher of Physical Education.
- Mrs. A. G. W. CERF, Teacher of French.
- ALICE HUBARD, Teacher of Spanish.

**THE TRAINING SCHOOL\***

The University Training School comprises a kindergarten, the six elementary grades, and the three years (7-9) of the junior high school. Pupils are admitted upon the same terms as to Los Angeles city schools. The school furnishes a thorough elementary and junior high school education.

An opportunity room affords to children of superior ability a chance to complete the work of the middle grades in less than the usual time with a fuller and richer curriculum than that of the ordinary grades. An adjustment room is also maintained in which children of the middle grades, who from one cause or another, are in need of special individual help in certain subjects receive such individual assistance as may be found necessary to put them on their feet educationally so that they may complete the work of a grade in which they might otherwise fail.

**PRACTICE TEACHING**

Ten semester hours of practice teaching are required of all candidates for the Elementary Teachers' Certificate except those who may be partially credited on account of teaching experience. No student is recommended for this certificate without having satisfactorily completed at least five semester hours of practice teaching in one of the training schools.

All students, except those who enter with second year standing, must have had a required course in the subject or subjects they are to teach before receiving the first assignment and must have reached full second year standing. Teaching 10A (five hours) is regularly taken in the first semester of the second year; teaching 10B (five hours) in the last semester of the course. Elective teaching (teaching 20, hours by individual arrangement) is offered to those who desire or who need additional training.

Secondary practice teaching is provided for in the high schools of Los Angeles city, under the supervision of the special departments of the Southern Branch of the University of California.

In addition to regular grade work, opportunities for elective teaching are afforded in the adjustment room, in Americanization classes in Los Angeles day and evening schools, in playground work, garden classes, etc.

Weekly conferences under the direction of training teachers and supervisors are required in connection with each teaching assignment in the training schools.

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\* In addition to the University Training School, portions of two Los Angeles city schools are utilized as supplementary training schools. In 1920-21 the Grand Avenue School and the Thirty-sixth Street School were so used. Some students are given the opportunity to do cadet teaching in other city schools under the supervision of the regular teachers and that of an Assistant Supervisor of Training from the University.

A high standard of work is required of students in teaching. Those who are unable to attain a reasonably high standard may be denied recommendation for certification. Students who do not possess the qualifications necessary for a high quality of service are advised, as soon as this can be discovered, to turn their attention to some other line of work.

#### ASSEMBLIES

All candidates for teachers' certificates are required to attend a series of assemblies during the last semester preceding the completion of any teachers' course. These assemblies have to do with the student's relationship to the institution, to the Appointment Secretary, to public school officials by whom they are to be employed, and with other matters of importance to prospective teachers. These assemblies are in charge of the Supervisor of Training.

#### PRACTICE TEACHING COURSES

##### *I. Kindergarten-Primary Teaching*

- ✓ K10A. Kindergarten-Primary Teaching. (5) Either semester.
- ✓ K10B. Kindergarten-Primary Teaching. (5) Either semester.
- ✓ K20. Elective Kindergarten-Primary Teaching. (Hours to be arranged.)

##### *II. Elementary Grade Teaching*

- ✓ E10A. Elementary Grade Teaching. (5) Either semester.
- ✓ E10B. Elementary Grade Teaching. (5) Either semester.
- ✓ E20. Elective Elementary Grade Teaching. (Hours to be arranged.)

##### *III. Junior High School Teaching*

- ✓ J11A. Junior High School Teaching. (5) Either semester.
- ✓ J11B. Junior High School Teaching. (5) Either semester.
- ✓ J21. Elective Junior High School Teaching. (Hours to be arranged.)

##### *IV. Fine and Industrial Arts Teaching*

- ✓ A10A. Elementary Fine Arts Teaching. (3) Either semester.
- ✓ A10B. Elementary Fine Arts Teaching. (3) Either semester.
- ✓ A10C. Elementary Industrial Arts Teaching. (3) Either semester.
- ✓ A10D. Elementary Industrial Arts Teaching. (3) Either semester.

- ✓ A20A. Elective Elementary Fine Arts Teaching. (Hours to be arranged.)
- ✓ A20B. Elective Elementary Industrial Arts Teaching. (Hours to be arranged.)
- ✓ A60A. Secondary Fine Arts Teaching. (3) Either semester.
- ✓ A60B. Secondary Fine Arts Teaching. (3) Either semester.
- ✓ A60C. Secondary Industrial Arts Teaching. (3) Either semester.
- ✓ A60D. Secondary Industrial Arts Teaching. (3) Either semester.
- ✓ A70A. Elective Secondary Fine Arts Teaching. (Hours to be arranged.)
- ✓ A70C. Elective Secondary Industrial Arts Teaching. (Hours to be arranged.)

#### *V. Commerce Teaching*

- ✓ C11. Junior High School Teaching in Commerce. (5) Either semester.
- ✓ C21. Elective Junior High School Teaching in Commerce. (Hours to be arranged.)
- ✓ C60A. Secondary Teaching in Commerce. (5) Either semester.
- ✓ C60B. Secondary Teaching in Commerce. (5) Either semester.
- ✓ C70. Elective Secondary Teaching in Commerce. (5) Either semester.

#### *VI. Home Economics Teaching*

- ✓ H10A. Elementary Home Economics Teaching. (2) Either semester.
- ✓ H10B. Elementary Home Economics Teaching. (2) Either semester.
- ✓ H11A. Junior High School Teaching in Home Economics. (2) Either semester.
- ✓ H11B. Junior High School Home Economics Teaching. (2) Either semester.
- ✓ H20. Elective Elementary Home Economics Teaching. (Hours to be arranged.)
- ✓ H60A. Secondary Home Economics Teaching. (2) Either semester.
- ✓ H60B. Secondary Home Economics Teaching. (2) Either semester.
- ✓ H70. Elective Secondary Home Economics Teaching. (Hours to be arranged.)

#### *VII. Mechanic Arts Teaching*

- ✓ MA10A. Elementary Manual Arts Teaching. (5) Either semester.
- ✓ MA10B. Elementary Manual Arts Teaching. (5) Either semester.
- ✓ MA11A. Junior High School Mechanic Arts Teaching. (5) Either semester.

- ✓ MA20. Elective Elementary Mechanic Arts Teaching. (Hours to be arranged.)
- ✓ MA60A. Secondary Mechanic Arts Teaching. (5) Either semester.
- ✓ MA60B. Secondary Mechanic Arts Teaching. (5) Either semester.
- ✓ MA70. Elective Secondary Mechanic Arts Teaching. (Hours to be arranged.)

## VIII. Music Teaching

- ✓ M10A. Elementary Music Teaching. (5) Either semester.
- ✓ M10B. Elementary Music Teaching. (5) Either semester.
- ✓ M11A. Junior High School Music Teaching. (2) Either semester.
- ✓ M11B. Junior High School Music Teaching. (2) Either semester.
- ✓ M20. Elective Elementary Music Teaching. (Hours to be arranged.)
- ✓ M60A. Secondary Music Teaching. (5) Either semester.
- ✓ M60B. Secondary Music Teaching. (5) Either semester.
- ✓ M70. Elective Secondary Music Teaching. (Hours to be arranged.)

## IX. Physical Education Teaching

- ✓ P10A. Elementary Physical Education Teaching. (2) Either semester.
- ✓ P10B. Elementary Physical Education Teaching. (2) Either semester.
- ✓ P11A. Junior High School Physical Education Teaching. (2) Either semester.
- ✓ P20. <sup>Elective</sup> Elementary Physical Education Teaching. (Hours to be arranged.)
- ✓ P60A. Secondary Physical Education Teaching. (2) Either semester.
- ✓ P60B. Secondary Physical Education Teaching. (2) Either semester.
- ✓ P70. Elective Secondary Physical Education Teaching. (Hours to be arranged.)

## PSYCHOLOGY

- GRACE M. FERNALD, Ph.D., Associate Professor of Psychology.
- S. CAROLYN FISHER, Ph.D., Assistant Professor of Psychology.
- NELLIE B. SULLIVAN, A.B., Instructor in Psychology.

*Kate Gordon*  
*E.C. Moore*

- ✓ LX. The Psychology of Study. (1) ~~Either semester~~ MOORE and STAFF  
Required during the first term of attendance of all students except those of advanced standing.
- ✓ L2A. Introductory Psychology. (3) Either semester. FISHER, SULLIVAN

*Gordon*  
*Moore*

- ✓ - L2B. Genetic Psychology. (3) Either semester. ✓ FERNALD, FISHER  
Prerequisite: Psychology 2A.
- ✓ - E70. Psychology of Elementary School Subjects. (3) ~~Either sem.~~ FERNALD  
Prerequisite: Psychology 2B.
- E76A-E76B. Introductory Experimental Psychology. (3-3) ~~Either sem.~~ FISHIER  
Prerequisite: Psychology 2A. (I-II) (II)
- ✓ - E77. Clinical Psychology. (3) II. ✓ FERNALD  
Prerequisite: Psychology 2B. This course alternates with Psychology 70, thus giving a year's course in advanced psychology.
- ✓ - E76 D - - - (4) II
- ✓ - E76 C - - - (3) I

## ROMANIC LANGUAGES

- H. R. BRUSH, Ph.D., Associate Professor of Romance Languages.
- A. G. W. CERF, M.A., LL.D., Honorary Lecturer in French.
- MARÍA LÓPEZ DE LOWTHER, B.S., Lecturer in Spanish.
- F. E. BECKMAN, Ph.D., Associate in French and Spanish.
- ANNA KRAUSE, A.B., Associate in Spanish.
- MADELEINE LETESSIER, Associate in French.

- Alice Fulbert

## PREPARATION FOR THE MAJOR

Required: 16 to 19 units in lower division courses.

Recommended: (French) Latin, Greek, English, Philosophy 4A; (Spanish) Latin, History 8A-8B, English.

## French

- ✓ - LA-LB. Elementary French. (5-5) ~~Yr~~ Either sem. BRUSH, BECKMAN *staff*
- ✓ - LC-LD. Intermediate French. (3-3) ~~Yr~~ Either sem. BRUSH *staff*
- ✓ - L6 French (3) ~~Yr~~ *staff*
- ✓ - L20A-L20B. Advanced French. (3-3) ~~Yr~~ (I-II) (II) BRUSH *staff*
- ✓ - L56A-B Advanced Conversation + Composition (3-3) ~~Yr~~ Letessier *staff*

## Spanish

- ✓ - L1A-L1B. Elementary Spanish. (5-5) ~~Yr~~ ~~Either sem.~~ BECKMAN, KRAUSE, LOWTHER
- ✓ - L2A-L2B. Intermediate Spanish. (3-3) ~~Yr~~ ~~Either sem.~~ BECKMAN, KRAUSE, LOWTHER
- ✓ - L5A-L5B. Advanced Spanish. (3-3) Yr. ✓ BECKMAN, KRAUSE
- ✓ - E6B. Spanish in Business Practice. (3-2) ~~Yr~~ II BECKMAN
- ✓ - L53A-B Modern Spanish Novels (3) ~~Yr~~ II Lowther

## CIRCULARS OF INFORMATION—(Continued)

For the following, apply to the proper Dean or Registrar:

The Circular of the California School of Fine Arts, in San Francisco.  
The Annual Announcements of the Hastings College of the Law, the Medical School, the College of Dentistry, and the California College of Pharmacy, in San Francisco; the Los Angeles Medical Department, in Los Angeles.

For the following, apply to the *Dean of the College of Agriculture*, Berkeley, California.

The Prospectus of the College of Agriculture.

The Announcement of Courses in Forestry.

The Annual Announcement of Farmers' Short Courses.

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

The Bulletins and Circulars of the Agricultural Experiment Station.

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

Other publications of the University Press are:

The UNIVERSITY OF CALIFORNIA CHRONICLE. A quarterly publication intended to serve as an official record of University life. It contains articles and addresses by members of the Faculty and by others on topics of interest to the University public, as well as a summary of current University happenings. Price, \$1 a year.

The UNIVERSITY OF CALIFORNIA CALENDAR. A weekly bulletin of official University announcements, containing also notices of meetings, lectures, concerts, and other University activities. Price, 25 cents a half-year, postpaid.

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