



CURTIS B. SMITH  
TRACHYDENDRUM  
Greenville, S.C.

LB

1840

Bulletin

77058

G7

1929-30

c.2

LB1840  
G7  
1929-30  
c.2

Colorado State Teachers College  
Bulletins  
1929 - 30  
Series 29  
Table of Contents

Colorado State Teachers College Bulletin.  
Catalog and Year Book. 1929-30. Series  
29, No.1.

Colorado State Teachers College Bulletin.  
School for Custodians, Janitors, and  
Engineers. June 10-15, 1929. Series  
29, No.2.

Colorado State Teachers College Bulletin.  
Teachers College High School. June  
1929. Series 29, No.3.

Colorado State Teachers College Bulletin.  
Opportunities for High School  
Graduates. Series 29, No.3(?).

Colorado State Teachers College Bulletin.  
Psychology Courses Summer School, 1930.  
Series 29, No.4.



1929-30

Colorado State Teachers College Bulletin.  
Sources of Income for State Teachers  
Colleges and State Normal Schools.  
Research Bulletin No.14. Series 29,  
No.5.

Colorado State Teachers College Bulletin.  
Mountain Class in Natural Science.  
Estes Park, 1930. Series 29, No.6.

Colorado State Teachers College Bulletin.  
Art By Special Instructors. Summer  
School, 1930. Series 29, No.7.

Colorado State Teachers College Bulletin.  
Short Course for Custodians, Janitors  
and Engineers. June 9-14, 1930.  
November, 1929. Series 29, No.8.

Colorado State Teachers College Bulletin.  
Summer School in Nursing Education.  
June 14-July 19, 1930. Series 29,  
No.9.

Colorado State Teachers College Bulletin.  
Student Outdoor Life exercises the body  
as well as the mind. Series 29, No.10.

Colorado State Teachers College Bulletin.  
Summer Quarter 1930. Series 29, No.11

The Official Program of Courses Summer  
Quarter 1930. Revised, June 1. (no  
number)



1929-30

Colorado State Teachers College Bulletin.  
Annoucement of the Graduate School  
1930-31. Series 29, No.12.

Sixth Annual School for Custodians,  
Janitors, and Engineers. June 9-14,  
1930. (no number)

Colorado State Teachers College Bulletin.  
Commercial Education. Summer School,  
1930.

Colorado State Teachers College Bulletin.  
Courses and Special Features in  
Elementary Education. Summer School  
1930.

Colorado State Teachers College Bulletin.  
Courses and Special Features in  
Secondary Education and Administration  
Summer School 1930.

Colorado State Teachers College Bulletin.  
Courses and Special Features for  
History Teachers. The American  
Revolution History of the Far East  
Latin America. Summer School 1930.





LB  
1840  
G-7  
1929-30  
C. Z





3

COLORADO STATE TEACHERS COLLEGE

# BULLETIN



CATALOG AND YEAR BOOK  
1929-1930

GREELEY

SERIES XXIX

APRIL

NUMBER 1

**COLORADO STATE TEACHERS COLLEGE**  
**BULLETIN**

Published monthly by Colorado State Teachers College, Greeley, Colorado. Entered as Second Class Matter at the Postoffice at Greeley, Colorado, under the Act of August 24, 1912.

Current numbers of any of the College Publications may be had on application to the President of the College, Greeley, Colorado.

CATALOG  
AND  
YEAR BOOK

COLORADO STATE TEACHERS COLLEGE

1929—1930

GREELEY, COLORADO  
PUBLISHED BY THE COLLEGE  
APRIL, 1929

## 1929—THE COLLEGE CALENDAR—1930

The Summer Quarter, 1929, begins June 15 and ends August 24  
First half, June 15-July 20—Second half, July 22-Aug. 24

### FALL QUARTER 1929

<i>Sept. 26,</i>	<i>Thursday</i> .....	Freshman Week begins, 10:30, Little Theater
<i>Sept. 30,</i>	<i>Monday</i> .....	Registration of Freshmen
<i>Oct. 1,</i>	<i>Tuesday</i> .....	Registration of Upper Classmen
<i>Oct. 2,</i>	<i>Wednesday</i> .....	Classes begin
<i>Nov. 11,</i>	<i>Monday</i> .....	Armistice Day (Holiday)
<i>Nov. 28-29,</i>	<i>Thursday, Friday</i>	Thanksgiving (Holiday)
<i>Dec. 14,</i>	<i>Saturday</i> .....	Advance Registration for Winter quarter
<i>Dec. 19-20,</i>	<i>Thursday, Friday</i>	Final Examinations
<i>Dec. 22,</i>	<i>Sunday</i> .....	Christmas Vacation begins

### WINTER QUARTER

<i>Dec. 30,</i>	<i>Monday</i> .....	Registration of New Students. Classes begin
1930		
<i>Jan. 1,</i>	<i>Wednesday</i> .....	New Year's Day (Holiday)
<i>Feb. 22,</i>	<i>Saturday</i> .....	Washington's Birthday (Holiday)
<i>Mar. 8,</i>	<i>Saturday</i> .....	Advance Registration for Spring quarter
<i>Mar. 14-15,</i>	<i>Friday, Saturday</i>	Final Examinations
<i>Mar. 16,</i>	<i>Sunday</i> .....	Spring Vacation begins

### SPRING QUARTER

<i>Mar. 24,</i>	<i>Monday</i> .....	Registration of New Students. Classes begin
<i>May 2,</i>	<i>Friday</i> .....	Insignia Day
<i>May 30,</i>	<i>Friday</i> .....	Memorial Day (Holiday)
<i>June 5-6,</i>	<i>Thursday, Friday</i>	Final Examinations
<i>June 7,</i>	<i>Saturday</i> .....	Commencement Day

### SUMMER QUARTER

<i>June 14,</i>	<i>Saturday</i> .....	Registration
<i>June 16,</i>	<i>Monday</i> .....	Classes begin
<i>July 4,</i>	<i>Friday</i> .....	Independence Day (Holiday)
<i>July 19,</i>	<i>Saturday</i> .....	First Half ends (Registration for second half quarter)
<i>July 21,</i>	<i>Monday</i> .....	Second Half begins
<i>Aug. 23,</i>	<i>Saturday</i> .....	Summer Convocation

Fall Quarter 1930 Begins September 29

LB  
1840  
G-7  
1922-23  
C. 2

## TABLE OF CONTENTS

### PART I—Organization of the College

- 1—The Board of Trustees
  - a—Members
  - b—Officers
- 2—Officers of administration
- 3—Graduate Council
- 4—Professional Staff
  - a—The Faculty
    - (1) Members of the faculty
    - (2) Special faculty for Summer Quarter, 1929

### PART II—General Information

- 1—Historical sketch
- 2—Location
- 3—Plant
- 4—The Campus
- 5—Jackson field
- 6—School garden
- 7—Museum
- 8—Equipment
- 9—Greeley water
- 10—Maintenance of the College
- 11—Government
- 12—Function of the College
- 13—Standard of the College
- 14—Physical Examinations
- 15—Fees and Expenses
- 16—Housing regulations
- 17—The summer quarter
- 18—Extension Department
- 19—Teachers' Placement Bureau

### PART III—The Training Schools

- 1—Function
- 2—Elementary
- 3—Secondary
- 4—Extra-Mural Teaching
- 5—Requirements in student teaching

### PART IV—Graduate Work

- 1—The nature of graduate work
- 2—Admission to the graduate school
- 3—Admission to candidacy for degree
- 4—Extension work
- 5—The limit for degree
- 6—Requirements for the degree
- 7—Fellowships
- 8—Scholarships
- 9—Loan funds

77058

## TABLE OF CONTENTS (Continued)

- 10—Religious associations
- 11—Honorary fraternities
- 12—Gifts to the college

### PART V—Admission, Graduation, Credits

- 1—Admission
- 2—Matriculation of freshmen
- 3—Quality of work
- 4—Certificates and degrees
- 5—Graduation
- 6—Credits
- 7—Enrollment

### PART VI—Course of Study

- 1—Statement of content by departments

### Index



PART I  
ORGANIZATION OF THE COLLEGE



## OFFICERS OF GOVERNMENT AND ADMINISTRATION

HARRY V. KEPNER, Sc.D.  
 President of the Board of Trustees

GEORGE WILLARD FRASIER, Ph.D., LL.D.  
 President of the College

### BOARD OF TRUSTEES (Appointed by the Governor of the State of Colorado)

EARL M. HEDRICK.....	Wray, Colo.
CHARLES N. JACKSON.....	Greeley, Colo.
HARRY V. KEPNER, Sc.D.....	Denver, Colo.
T. W. MONELL.....	Montrose, Colo.
CLIFFORD P. REX, D.D.S.....	Alamosa, Colo.
C. H. STEWART.....	Delta, Colo.
KATHERINE L. CRAIG.....	Denver, Colo.

(State Superintendent of Public Instruction, Ex-Officio)

### OFFICERS OF THE BOARD OF TRUSTEES

DR. KEPNER.....	President
DR. REX.....	Vice-President
MR. MCMURDO.....	Secretary
DR. KEPNER, MR. JACKSON, MR. HEDRICK.....	
Executive Committee for Colorado State Teachers College	

### OFFICERS OF ADMINISTRATION

GEORGE WILLARD FRASIER, Ph.D., LL.D.....	President of the College
ETHAN ALLEN CROSS, Ph.D.....	Vice-President of the College
WINFIELD DOCKERY ARMENTROUT, Ed.D.....	Director of Instruction
FRANK COVERT JEAN, Ph.D.....	Chairman of Graduate Council

### THE GRADUATE COUNCIL

Frank Covert Jean, Ph.D., Chairman; Paul McKee, Ph.D., Vice-chairman;  
 J. D. Heilman, Ph.D.; Earl U. Rugg, Ph.D.; O. M. Dickerson, Ph.D.;  
 W. G. Bowers, Ph.D.; F. L. Whitney, Ph.D.; W. D. Armentrout, Ed.D.;  
 President and Vice-President of the College ex-officio.

---

LUCY HARTT ADAMS, A.M.....	Dean of Women
WINFIELD DOCKERY ARMENTROUT, Ed. D.....	Director of Training Schools
THOMAS JEFFERSON MAHAN, Ph.D.....	Dean of Men
ROBERT HUGH MORRISON, A.M.....	Director of Extension Service
FREDERICK LAMSON WHITNEY, Ph.D.....	Director of Research

---

ROY M. CARSON.....	Registrar
J. P. CULBERTSON.....	Business Agent
RUTH L. GUNSAUL.....	Secretary to the President
W. F. MCMURDO.....	Treasurer

## THE FACULTY

- GEORGE WILLARD FRASIER, A.B., A.M., Ph.D., LL.D. *President*  
A.B., Michigan State Normal College; A.M., Stanford University;  
Ph.D., Columbia University; LL.D., Colorado College; LL.D., University  
of Colorado.
- LUCY HARTT ADAMS, A.B., A.M. *Dean of Women*  
A.B., A.M., Colorado State Teachers College.
- ROBERT EUGENE ALLEN, A.B., A.M. *Assistant Professor of English*  
A.B., DePauw University; A.M., Chicago University.
- WINFIELD DOCKERY ARMENTROUT, A.B., A.M., Ed.D. *Director of*  
*Instruction;*  
*Director of Training Schools;*  
*Professor of Education*  
A.B., Missouri Valley College; A.M., Columbia University; Ed.D.,  
Harvard University; Graduate Student, Ohio State University.
- GRACE M. BAKER, B.S., A.B., A.M. *Professor of Art;*  
*Head of Department*  
Diploma, Illinois State Normal University; B. Art Ed., Chicago Art  
Institute; B.S., A.M., Teachers College, Columbia University; Student,  
Chicago University.
- GEORGE ALEXANDER BARKER, B.S., M.S. *Professor of Geography;*  
*Head of Department*  
B.S., M.S., University of Chicago.
- SAMUEL CLAY BEDINGER, LL.B. *Assistant Professor of*  
*Commercial Education*  
Diploma, Central Business College, (Kansas City); LL.B., La Salle  
Extension University, Chicago; Member Oklahoma Bar; Student, Okla-  
homa A. & M. College.
- JOHN RANDOLPH BELL, Ph.B., A.M., Litt.D. *Professor of Education*  
Diploma, Colorado State Teachers College; Ph.B., A.M., University of  
Colorado; Litt.D., University of Denver.
- WILFRED GEORGE BINNEWIES, A.B., A.M., Ph.D. *Associate Professor*  
*of Sociology*  
A.B., DePauw University; A.M., Ph.D., University of Chicago; Graduate  
Student, University of Minnesota.
- RALPH THOMAS BISHOP, A.B., A.M. *Professor of Industrial Education*  
Diploma, Western Illinois State Teachers College; A.B., Colorado  
State Teachers College; A.M., Stanford University; Student, University  
of Chicago.
- MARGARET BLACKBURN, A.B., A.M. *Assistant Professor of English*  
Diploma, Columbia College of Expression; A.B., A.M., University of  
Iowa; Graduate Student, University of Chicago.
- \*HAROLD GRANVILLE BLUE, A.B., A.M. *Professor of Education*  
A.B., A.M., Colorado State Teachers College; Graduate Student, Uni-  
versity of Chicago.
- WILLIAM GRAY BOWERS, B.S., A.M., Ph.D. *Professor of Chemistry;*  
*Head of Department*  
B.S., Ohio Wesleyan University; A.M., Indiana University; Ph.D., Ohio  
State University; Graduate Student, University of California.

---

\*On Leave.

**ELIZABETH B. BROOKS, B.S.** *Instructor in Physical Education for Women*  
B.S., University of Iowa; Student, Grinnell College.

**PETER BROWN, A.B.** *Instructor in Physical Education for Men*  
A.B., Colorado State Teachers College; Student, University of Arizona.

**MARGARET ELIZABETH BRYSON, A.F., A.M., M.D.** *Professor of Physical Education for Women; Medical Adviser of Women*  
A.B., University of Texas; A.F., Colorado State Teachers College; M.D., University of Colorado; Graduate Student, Columbia University.

**ELIZABETH CARNEY, A.B., A.M.** *Assistant Professor of Secondary English; Training Teacher, Teachers College High School*  
A.B., A.M., Colorado State Teachers College.

**ALBERT FRANK CARTER, A.B., M.S.** *Professor of Library Administration; College Librarian*  
Diploma and M.S., State Normal School, (Pennsylvania); A.B., Colorado State Teachers College; Graduate Student, University of Chicago.

**JEAN CAVE, B.S., A.M.** *Professor of Physical Education for Women; Head of Department*  
B.S., Kansas State Teachers College; A.M., Teachers College, Columbia University; Graduate Student, Niels Bukh School of Gymnastics, Ollerup, Denmark.

**\*JAMES DEFOREST CLINE** *Professor of Public School Music; Head of Department*  
Graduate, Conservatory of Music, Washington State College; Student, Columbia University.

**AMBROSE OWEN COLVIN, B.C.S., A.M.** *Professor of Commercial Education; Head of Department*  
Diploma, Tarkio College; B.C.S., Denver University; A.M., Colorado State Teachers College; Graduate Student, University of California.

**GEORGE EDWIN COOPER, A.B.** *Professor of Physical Education for Men; Head of Department*  
Diploma, Slippery Rock State Normal School; A.B., Colorado State Teachers College; Student, Harvard University, University of Illinois, University of Washington, University of Michigan.

**ETHAN ALLEN CROSS, A.B., A.M., Ph.D.** *Vice-President of College; Professor of English; Head of Department*  
A.B., University of Illinois; A.M., University of Chicago; Ph.D., Columbia University; Graduate Student, Cornell University, Southern Illinois State Teachers College.

**GENEVIEVE DAVIS, A.B., A.M.** *Assistant Professor of Secondary Foreign Languages; Training Teacher, Teachers College High School*  
Diploma, National Park Seminary; A.B., A.M., University of Iowa.

**HELEN CALDWELL DAVIS, A.B., A.M.** *Principal of Teachers College Elementary School; Professor of Elementary Education*  
A.B., Grinnell College; A.M., University of Iowa; Graduate Student, University of Chicago.

\*On Leave.

- \***OLIVER MORTON DICKERSON, A.B., A.M., Ph.D.**      *Professor of History  
and Political Science;  
Head of Department*  
Diploma, Illinois State Normal University; A.B., A.M., Ph.D., University of Illinois; Graduate Student, Harvard University.
- JULE STRATTON DOUBENMIER, A.B.**      *Assistant Professor of  
Physical Education;  
Training Teacher, Teachers College  
Elementary and Secondary Schools*  
A.B., Colorado State Teachers College; Student, Coe College, University of Iowa.
- \***ETHEL TURNER DULIN, B.S.**      *Associate Professor of  
Primary Education;  
Training Teacher, Teachers College Elementary School*  
B.S., George Peabody College for Teachers; Graduate Student, University of Tennessee; Student, Randolph-Macon College.
- RICHARD GORDON ELLINGER, A.B.**      *Associate Professor of Art*  
Diploma, Massachusetts School of Art; A.B., Harvard University.
- GEORGE WILLIAM FINLEY, B.S. M.S.**      *Professor of Mathematics;  
Head of Department*  
B.S., M.S., Kansas State Agricultural College; Graduate Student, Columbia University, University of Chicago.
- CHESTER KIMES FLETCHER, A.B., A.M.**      *Associate Professor of  
Extra-Mural Education*  
A.B., Pacific University; A.M., Colorado State Teachers College.
- CHARLES MEADE FOULK**      *Professor of Industrial Arts*  
Diploma, Colorado State Teachers College.
- CATHERINE CRATES GIBERT, A.B., A.M.**      *Associate Professor of  
Foreign Languages*  
A.B., Ohio Wesleyan University; A.M., Ohio State University; Graduate Student, University of Dijon, Strasburgh, Institute of Touraine.
- ELLA FRANCES HACKMAN, B.S.**      *Associate Professor of  
Secondary Social Science;  
Training Teacher, Teachers College High School*  
Diploma, Morris Harvey College; B.S., Teachers College, Columbia University; Student, University of Tennessee, University of Virginia.
- SAMUEL MILO HADDEN, A.B., A.M.**      *Professor of Industrial Education;  
Head of Department*  
Diploma, Colorado State Teachers College; A.B., A.M., University of Denver; Graduate Student, University of California; Student, University of Chicago, Columbia University.
- \***WILLIAM HENRY HARGROVE, B.S., A.M.**      *Professor of Rural and  
Agricultural Education*  
Diploma, Southeast Missouri State Teachers College; B.S. in Agri Ed., University of Missouri; A.M., Colorado State Teachers College.
- EZRA CLARENCE HARRAH, A.B., A.M., Ph.D.**      *Associate Professor of ZOOLOGY*  
A.B., Southwestern College; A.M., Ph.D., University of Illinois.
- MARTHA LUCILLE HARRISON, Ph.B.**      *Associate Professor of  
Kindergarten-Primary Education;  
Training Teacher, Teachers College Elementary School*  
Diploma, Northern Illinois State Teachers College; Ph.B., University of Chicago.

---

\*On Leave.

- JOSEPHINE MARY HAWES, A.B., A.M. *Associate Professor of English*  
Diploma, Kansas State Teachers College; A.B., A.M., Colorado State Teachers College; Graduate Student, Columbia University, Cambridge University, England; University of Colorado.
- JACOB DANIEL HEILMAN, A.B., Ph.D. *Professor of Educational Psychology;*  
*Head of Department*  
Diploma, Keystone State Normal School; A.B., Muhlenberg College; Ph.D., University of Pennsylvania.
- FRED LOUIS HERMAN, B.S., A.M. *Associate Professor of Secondary Science;*  
*Training Teacher, Teachers College High School*  
B.S., University of Nebraska; A.M., Stanford University; Graduate Student, University of Nebraska; Student, Sarbonne, Ecole de Corolerie, France.
- OSCAR EDWARD HERTZBERG, A.B., A.M., Ph.D. *Professor of Educational Psychology*  
Diploma, State Normal School, Oshkosh, Wis.; A.B., University of Wisconsin; A.M., Ph.D., Columbia University; Graduate Student, University of Wisconsin.
- IRA WOODS HOWERTH, A.B., A.M., Ph.D. *Professor of Sociology and Economics;*  
*Head of Department*  
A.B., Northern Indiana Normal School; A.B., Harvard University; A.M., Ph.D., University of Chicago
- FRANK COVERT JEAN, A.B., A.M., Ph.D. *Chairman of Graduate Council;*  
*Professor of Biology;*  
*Head of Department*  
A.B., A.M., Ph.D., University of Nebraska; Student, Peru State Teachers College and York College.
- ALICE JOHNSON, Ph.B. *Associate Professor of Secondary English;*  
*Training Teacher, Teachers College High School*  
Ph.B., University of Chicago; Graduate Student, University of Chicago; Student, University of Mississippi.
- ELIZABETH HAYS KENDEL, A.B. *Associate Professor of Secondary Mathematics;*  
*Training Teacher, Teachers College High School*  
A.B., Colorado State Teachers College; Graduate Student, Columbia University.
- MARGARET JOY KEYES, A.B., A.M. *Associate Professor of Physical Education*  
A.B., Colorado State Teachers College; A.M., Teachers College, Columbia University; Student, Columbia College of Expression.
- WINFIELD LE ROY KNIES, A.B., A.M. *Associate Professor of Commercial Education*  
A.B., Colorado State Teachers College; A.M., University of Washington.
- ELIZABETH LEHR, B.S. *Associate Professor of Elementary Education;*  
*Training Teacher, Teachers College Elementary School*  
Kindergarten Diploma, National Kindergarten and Elementary College; B.S., Teachers College, Columbia University; Student, Hastings College.
- LESLIE D. LINDOU, A.B., A.M. *Assistant Professor of English and Literature*  
A.B., University of Minnesota A.M., Yale University.
- FLORENCE LOWE, A.B., A.M. *Associate Professor of Art*  
A.B., Colorado State Teachers College; A.M., Teachers College, Columbia University.

- ELIZABETH LUZMOOR, B.S. *Associate Professor of  
Elementary Education;  
Training Teacher, Teachers College Elementary School*  
Diploma, Colorado State Teachers College; B.S., University of Iowa;  
Student, University of Colorado.
- GENEVIEVE LYFORD, B.H.S., B.S., A.M. *Professor of Pre-School Education;  
Training Teacher, Teachers College Elementary School*  
Diploma, Teachers College, Galesburg, (Illinois); B.H.S., Oregon Agricultural College; B.S., Teachers College, Columbia University; A.M., Colorado State Teachers College; Graduate Student, University of Chicago.
- THOMAS JEFFERSON MAHAN, A.B., A.M., Ph.D. *Dean of Men;  
Professor of Education*  
A.B., A.M., Colorado State Teachers College; Ph.D., Columbia University.
- ARTHUR ERNEST MALLORY, A.B., A.M. *Professor of Mathematics*  
A.B., A.M., University of Kansas; Graduate Student, George Peabody College for Teachers.
- ANNIE MARGARET McCOWEN, A.B., B.S., A.M., Ph.D. *Professor of  
Elementary Education;  
Training Teacher, Teachers College Elementary School*  
A.B., Bessie Tift College; B.S., A.M., Teachers College, Columbia University; Ph.D., University of Iowa.
- PAUL MCKEE, A.B., A.M., Ph.D. *Professor of Elementary Education*  
A.B., Monmouth College; A.M., Ph.D., University of Iowa.
- LUCY NEELEY McLANE, A.B., B.L.I., A.M. *Associate Professor of  
Secondary English;  
Training Teacher, Teachers College High School*  
A.B., Colorado State Teachers College; B.L.I., Emerson College of Oratory; A.M., Stanford University; Graduate Student, Boston University.
- ESTELL ELGAR MOHR, B.S. *Associate Professor of Public School Music*  
Diploma, State Normal College (Bowling Green, Ohio); B. S., Teachers College, Columbia University; Graduate Student, Teachers College, Columbia University, Colorado State Teachers College.
- GEORGIA ETHEL MOORE, B.S. *Associate Professor of Art*  
Diploma, Washington State Normal School; B.S., Teachers College, Columbia University; Student, University of Washington.
- ROBERT HUGH MORRISON, A.B., A.M. *Director of Extension Service;  
Professor of Extra-Mural Education*  
A.B., Michigan State Normal College; A.M., Colorado State Teachers College; Graduate Student, George Peabody College for Teachers, and University of Colorado.
- JUNIA LEONORA MORSE, A.B., A.M. *Head of Housing Bureau;  
Assistant Professor of English*  
Diploma, State Normal School (Brockport, New York); A.M., Teachers College, Columbia University; Graduate Student, Syracuse University, University of California.
- MARGARET MULRONEY, A.B., A.M., Ph.D. *Professor of Foreign Languages;  
Head of Department*  
A.B., A.M., Ph.D., University of Iowa; Student, Centro de Estudios Historicos, Madrid, Spain.



- VERA NEWBURN, B.S., M.S.      *Associate Professor of Home Economics;  
Training Teacher, Teachers College  
Elementary and Secondary Schools*  
Diploma, Northeast Missouri State Teachers College; B.S., Hastings College; M.S., Teachers College, Columbia University; Student, University of Nebraska.
- A. EVELYN NEWMAN, Ph.B., A.M.      *Professor of English and Literature*  
Diploma, Louisville Normal School; Ph.B., A.M., University of Chicago; Graduate Student, University of Dublin, University of Montpelier.
- LESTER EDWIN OPP, Mus.B.      *Assistant Professor of Music*  
Mus. B., Dana Musical Institute.
- ORA BROOKS PEAKE, A.B., A.M.      *Associate Professor of History*  
Diploma, Michigan State Normal College; A.B., A.M., University of Michigan; Graduate Student, University of Chicago.
- KENNETH FREDERICK PERRY, A.B., A.M.      *Assistant Professor of  
Industrial Education;  
Training Teacher, Teachers College  
Elementary and Secondary Schools*  
A.B., A.M., Colorado State Teachers College.
- \*ETHEL BLANCHE PICKETT, B.S., A.M.      *Associate Professor of  
Home Economics*  
B.S., A.M., Teachers College, Columbia University; Student, Pratt Institute, Missouri State University.
- PAULINE CRAIG POGUE, A.B., A.M.      *Dean of High School Girls;  
Assistant Professor of Secondary History*  
A.B., A.M., Colorado State Teachers College.
- MARY S. POWER, B.S.      *Instructor in Nursing Education*  
Diploma, State Normal School, (Danbury, Conn.), Massachusetts General Hospital; B. S., Teachers College, Columbia University; Head Nurse, University of Michigan Hospital; Assistant Director of Nursing, University of California Hospital; Director of Nursing, Harper Hospital, Detroit.
- \*ROBERT CECIL POOLEY, A.B., A.M.      *Assistant Professor of  
Secondary English;  
Training Teacher, Teachers College High School*  
A.B., A.M., Colorado State Teachers College; Student, Cornell University, General Theological Seminary.
- JAMES H. RISLEY, A.B., A.M.      *Professor of Extra-Mural Education*  
A.B., Indiana University; A.M., University of Chicago.
- LUCY LYNDE ROSENQUIST, B.S., Ph. B., A.M.      *Associate Professor of  
Primary Education;  
Training Teacher, Teachers College Elementary School*  
B.S., Fremont College; Ph.B., University of Chicago, A.M., Teachers College, Columbia University.
- MARGARET MOORE ROUDEBUSH, Ph.B. A.B.      *Professor of Home Economics;  
Head of Department*  
Ph.B., University of Chicago; A.B., Mississippi State College for Women; Graduate Student, Bryn Mawr College, University of Chicago.
- EARLE UNDERWOOD RUGG, A.B., A.M. Ph.D.      *Professor of Education;  
Head of Department*  
A.B., A.M., University of Illinois; Ph.D., Columbia University; Graduate Student, University of Chicago.

\*On Leave.

- CHARLES RICHARD SATTGAST, B.S., A.M. *Associate Professor of  
Extra-Mural Education*  
B.S., University of Illinois; A.M., Stanford University.
- OTTO WILLIAM SCHAEFER *Associate Professor of Industrial Arts*  
Student, Toledo School of Commerce.
- WILLIAM H. SAUNDERS, B.S. *Assistant Professor of Physical  
Education for Men*  
B.S., Colorado Agricultural College; Student, Alabama Polytechnical  
Institute, U. S. Naval Academy.
- EDITH MARIE SELBERG, A.B., A.M. *Assistant Professor of Biology*  
A.B., A.M. Colorado State Teachers College; Graduate Student, Univer-  
sity of Chicago.
- JOHN HENRY SHAW *Editor of Official Publications;  
Instructor in Journalism*  
Student, Drexel Institute, Spring Garden Institute, Temple Univer-  
sity.
- ANGIE S. K. SOUTHARD, A.B. *Instructor in Music Appreciation*  
A.B., Wellesley College; Graduate Student, Colorado State Teachers  
College.
- HELEN ETTA SPRINGER, B.S. *Instructor in Physical Education  
for Women*  
B.S., University of Iowa.
- JAMES J. THOMAS, MUS.B. *Assistant Professor of Music*  
Mus. B., Dana Musical Institute.
- A. L. THERLKELD, B.S., A.M. *Professor of Extra-Mural Education*  
B.S., University of Missouri; A.M., Teachers College, Columbia Univer-  
sity; Graduate Student, University of Chicago, University of Wiscon-  
sin.
- FRANCES TOBEX, B.S., A.B. *Professor of English*  
Graduate, Emerson School of Oratory; B.S., Western Normal College,  
(Iowa); A.B., Colorado State Teachers College; Graduate Student,  
University of Oxford; Student, University of Cambridge, England.
- FLOSS ANN TURNER, Ph.B., A.M. *Associate Professor of Primary  
Education;  
Training Teacher, Teachers College Elementary School*  
Diploma, Central Missouri State Teachers College; Ph.B., University  
of Chicago; A.M., Columbia University.
- CHARLES FRANKLIN VALENTINE, A.B., A.M. *Professor of Physics;  
Head of Department*  
A.B., Kalamazoo College; A.M., Teachers College, Columbia University.
- SUSAN HART VAN METER, B.S., A.M. *Associate Professor of  
Elementary Education;  
Training Teacher, Teachers College Elementary School*  
Diploma, Colorado State Teachers College; B.S., University of Miss-  
ouri; A.M., Columbia University; Graduate Student, Ohio State Uni-  
versity, University of Missouri.
- EDWARD VON DEN STEINEN, M.D. *Professor of Physical Education  
for Men;  
Medical Adviser of Men*  
Graduate, Springfield College of Physical Education; M. D., Western  
Reserve University; Graduate Student, Harvard University, Chicago  
Polyclinic.
- WALLACE THEODORE WAIT, B.S., A.M., Ph.D. *Associate Professor of  
Educational Psychology*  
B.S., Whitworth College; A.M., Ph.D., University of Washington.

- LEE ROY WEST, A.B., A.M. *Assistant Professor of Geography*  
A.B., Southwestern Oklahoma Teachers College; A.M., George Peabody  
College for Teachers.
- FREDERICK LAMSON WHITNEY, Ed. 3., Ph.B., A.M., Ph.D. *Director of*  
*Educational Research;*  
*Professor of Education*  
Ed.B., Ph.B., A.M., University of Chicago; Ph.D., University of Minne-  
sota.
- EDITH GALE WIEBKING, A.B., A.M. *Associate Professor of*  
*Household Arts*  
A.B., A.M., Colorado State Teachers College
- GRACE HANNAH WILSON, A.B., A.M. *Director of Religious Activities;*  
*Associate Professor of Education*  
Diploma, Colorado State Teachers College, A.B., Colorado College;  
A.M., Teachers College, Columbia University; Graduate Student, Harv-  
ard University; Student, Laird Seminary.
- WILLIAM LAWRENCE WRINKLE, A.B., A.M. *Principal of Teachers*  
*College High School;*  
*Professor of Secondary Social Science*  
A.B., A.M., Colorado State Teachers College.
- ARTHUR FRANKLIN ZIMMERMAN, A.B., A.M., B.D., Ph.D. *Assistant*  
*Professor of History*  
A.B., McKendrie College; A.M., Teachers College, Columbia University;  
B.D., Drew Theological Seminary; Ph.D., University of Illinois.

---

 THE LIBRARY

- ALBERT FRANK CARTER, A.B. *Head Librarian*
- GRACE LILLIAN CUSHMAN *Assistant Librarian;*  
*Instructor in Library Administration*  
Diploma, Colorado State Teachers College.
- ANNE MAXVILLE, A.B. *Assistant Librarian*  
A.B., Colorado State Teachers College.
- WILLIAM BIDWELL PAGE, M.D. *Assistant Librarian*  
M.D., University of Michigan.
- ELIZABETH SCHILPP *Children's Librarian*  
Diploma, Carnegie Institute of Technology.
- CORA MAY THOMAS *Classifier and Cataloger*  
Diploma, Colorado State Teachers College.
- IVA CATHERINE WATSON, B.S. *Reference Librarian*  
Diploma, Colorado State Teachers College; B.S., Colorado Agricultural  
College; Certificate, New York State Library School and New York  
University.

## THE CONSERVATORY OF MUSIC

**\*J. DEFOREST CLINE**

*Professor of Public School Music;  
Director of the Conservatory of Music*

Graduate in Music, Washington State College; Graduate Student, Columbia University; Voice with Kuria Strong, and Percy Rector Stephens; Composition, Arthur Edward Johnstone, New York City.

**EUGENE SHAW CARTER**

*Instructor in Violin*

Violin Student, Leon Sametini, Chicago Musical College; Carl-Frederic Steckelberg, University School of Music (Lincoln, Nebraska); Albert Zoellner, Jacques Gotlieb, Earl Pfouts, Sol Marcossou, Frederic Mac-Murray.

**J. ELBERT CHADWICK**

*Instructor in Piano*

Graduate of Syracuse University, College of Fine Arts; Piano with Iliff Garrison, Organ with Harry L. Vibbard, Theory with Dr. William Berwald; Graduate Student of Dr. Adolf Frey, Syracuse University; Premier Prix d'Orgue at Fontainebleau, France, 1921; Studied with Charles Marie Widor and Henri Libert.

**LUCY B. DELBRIDGE**

*Instructor in Violin*

Diploma, Colorado State Teachers College; Studied Voice with A. Boylan and L. C. Austin; Studied Piano with U. Williams; Studied Violin with C. K. Hunt, W. S. Daniels, E. A. Garlich, E. Sindlinger, Geneva Waters Baker, David Abramowitz, and Paul Lemaitre.

**J. ALLEN GRUBB**

*Instructor in Voice*

Graduate of the Western Conservatory of Music (Chicago); Voice with John F. Jones, University of California; H. W. Owens, William Claire Hall, John C. Wilcox, and Percy Rector Stephens.

**BLANCHE BENNET HUGHES**

*Instructor in Piano*

Student, College of Music, Cincinnati; Student with Alexander Andre, Armin Doerner, Everett H. Steele.

**ESTELL ELGAR MOHR**

*Assistant Professor of Public School Music*

Public School Music Diploma, Bowling Green Normal College, (Ohio); B.S., Music Education, Teachers College, Columbia University; Graduate Student, Teachers College, Columbia University; Voice, Prof. R. M. Tunncliffe, Walter Kiesewetter, Madame Aslanoff, Percy Rector Stephens, Dean Harold Butler, Syracuse University.

**LESTER EDWIN OPP**

*Assistant Professor of Music*

Mus. B., Dana Musical Institute, Cello, L. A. Gregory, Dillon, Montana, and L. V. Ruhl, Dana Musical Institute (Warren Ohio); Piano, Margaret Poindexter and L. A. Gregory, M. Salome Wetterholt, and L. V. Ruhl.

**BEVERLY IVAREA BEIL OPP**

*Instructor in Reed Instruments*

Saxophone, J. Dwight Reese, D. S. Strickland, Theil College, (Pennsylvania); Oboe and Saxophone, Professor J. D. Cook, Dana Musical Institute.

**ANGIE S. K. SOUTHARD**

*Instructor in Music Appreciation*

A.B., Wellesley College; Graduate Student, Colorado State Teachers College; Voice with May Sleeper Ruggles; Organ and Theory with Dr. Hamilton C. MacDougall; Piano with Alexander Lambert, V. Eduardo in Milan, and Gustave Lazarus in Berlin; Student, University of Berlin.

**JAMES J. THOMAS**

*Assistant Professor of Music*

B.M., Dana Musical Institute (Warren, Ohio); Violin Student, Charles H. Lowry, John Hundertmark, Earl King, Arthur Stanborne, Paul Fink, Carl Kling, Arthur Hartmann; Piano Student, G. P. Andrews, Jacob Schmitt; Brass Instruments, Ross Hickernell; Theory, J. D. Cook, Rei Christopher, Nellie Mae Gwynne; History and Theory, Lynn B. Dana.

\*On Leave.

## SPECIAL FACULTY AND GENERAL LECTURERS

## SUMMER QUARTER 1929

In addition to the regular faculty, a number of outside lecturers and teachers, leaders in their respective fields, conducted courses in the different departments. This supplemental faculty included among others the following:

- DR. FREDERIC D. CHEYDLEUR, Professor of Romance Languages, University of Wisconsin. Courses in Romance Languages, and Lecturer.
- DR. LIGHTNER WITMER, Head of the Department of Psychology, University of Pennsylvania. Courses in Psychology.
- DR. HAROLD RUGG, Professor of Educational Psychology, Teachers College, Columbia, and Educational Psychologist, Lincoln School, Teachers College, Columbia University. Courses in Education.
- DR. EDWARD HOWARD GRIGGS, Author and Lecturer on Literature and Philosophy. Lecturer.
- DR. I. L. KANDEL, Professor of Education, Teachers College, Columbia University; Assistant Director International Institute. Courses in Education, and Lecturer.
- MR. ALLAN ABBOTT, Professor of English, Teachers College, Columbia University. Courses in Literature and English.
- DR. FRANKLIN G. EBAUGH, Director of Colorado Psychopathic Hospital. Courses in Psychology, and Lecturer.
- MISS CAROLYN ELIZABETH GRAY, Lecturer in Nursing Education; Author and Hospital Nurse Superintendent. Courses in Nurse Teacher Training.
- DR. MERLE PRUNTY, Principal Central High School, Tulsa, Oklahoma. Courses in Education.
- MR. MARQUES E. REITZEL, Professor of Fine Arts, Rockford College; Director of the Rockford Art Museum, Rockford, Illinois. Courses in Fine Arts.
- MR. CLARK M. FRASIER, Director of Training, Lewiston State Normal School, Lewiston, Idaho. Courses in Education.
- DR. W. D. REEVE, Professor of Mathematics. Teachers College, Columbia University. Courses in Mathematics.
- MR. A. L. THERLKELD, Superintendent of Schools, Denver, Colorado. Courses in Education, and Lecturer.
- DR. J. A. O. LARSEN, Associate Professor of History, Ohio State University. Courses in History.
- MISS MAUDE MARY MCBROOM, Principal Elementary School. State University of Iowa. Courses in Education.
- REV. DR. LAWRENCE WILSON, Pastor Mission Hills Congregational Church, San Diego. Courses in Religious Education, and Lecturer.

- DR. JOHN W. WITHERS, Dean of the School of Education, New York University. Courses in Education, and Lecturer.
- MR. H. W. WOOD, Superintendent of Schools, Munising, Michigan, Courses in Parent Teacher Association Work.
- MR. J. H. RISLEY, Superintendent School District No. 1, Pueblo, Colorado. Courses in Education.
- MR. N. E. BUSTER, Principal of William James Junior High School, Fort Worth. Courses in Education.
- MR. W. B. DOBSON, Supervisor of Elementary Grades, Public Schools of Forth Worth. Courses in Education.
- MR. R. L. HUNT, Superintendent of Schools and director of secondary education, Eastern State Teachers College, Madison, South Dakota. Courses in Education.
- MR. I. E. STUTSMAN, Superintendent of City Schools and Logan County High School, Sterling, Colorado. Former President, Colorado Education Association. Courses in Education.
- MISS BLANCHE O'HARA, New York. Specialist in Hand Writing Methods. Courses in Penmanship.
- MISS FRANCES R. DOULL, Columbus, Ohio. Formerly Supervisor of Penmanship in the Denver Public Schools. Specialist in Penmanship Supervision and Teaching Methods. Courses in penmanship methods.

PART II  
GENERAL INFORMATION

COLORADO STATE  
TEACHERS COLLEGE  
Greeley, Colo.





## HISTORICAL SKETCH

The State Normal School of Colorado was established by an act of the Legislature of 1889. The first school year began October 6, 1890.

At the beginning of its second year the school was reorganized and the course extended to four years. This course admitted grammar school graduates to the freshman year, and others to such classes as their ability and attainment would allow.

At a meeting of the Board of Trustees held June 2, 1897, a resolution was adopted admitting only high school graduates or those who had an equivalent preparation, and practical teachers. This policy made the institution a professional school in the strictest sense.

The Eighteenth General Assembly passed an act making the State Normal School at Greeley, Colorado, also the State Teachers College of Colorado. In the catalog and in all the official publications hereafter the title "Colorado State Teachers College" will be used.

## LOCATION

Colorado State Teachers College is located in Greeley, Weld County, Colorado, on the Union Pacific and the Colorado & Southern Railways, fifty-two miles north of Denver. This city is in the valley of the Cache la Poudre river, one of the richest agricultural sections of the state. The altitude is 4,567 feet above sea level. The streets are lined with trees, forming beautiful avenues. The elevation and distance from the mountains render the climate mild and healthful. The city is one of Christian homes and contains churches of all the leading denominations. There are 14,000 inhabitants.

## PLANT

The plant consists of twelve attractive and substantial buildings, beautiful in their architectural lines, with interiors designed with a view to maximum service. Among the structures next to be erected is a science building and a model heating plant. The latter will be erected on the new plot of ground east of the campus. It will be located close to the Union Pacific tracks and steam will be piped to a distributing plant on the campus. It also is proposed to build an addition to the library as soon as funds are available. The buildings which at present comprise the physical plant are:

**THE ADMINISTRATION BUILDING**—The main or Administration Building is 240 feet long and 80 feet wide. It has in it executive offices, classrooms, and class museums. Its halls are wide and commodious and are occupied by statuary and other works of art, which makes them very pleasing. A Natural History Museum, which is regarded as one of the most complete and interesting in the state, occupies a large part of the upper floor of this building.

**THE LIBRARY**—This imposing structure of gray stone forms the central unit of a group of three buildings, forming a link between the Administration Building on the west and the Training Schools on the east. It contains 67,000 volumes, a large picture collection, and several thousand pamphlets. The two floors are used for library purposes. The main floor is a reading and general reference room, where are shelved many of the periodical and reference books. On this floor also are kept reserved books, which are for special use within the building. The basement floor contains the general book collection stacks, government publications, and unbound volumes of magazines. An automatic electric book lift operates between the floors. The volumes in the library have been selected with special reference to needs of students in education, for teachers, and for educational research work.

**TRAINING SCHOOLS**—The Training School building is the home of the Training Schools of the College, namely, the Teachers College High School and Elementary School, and the children's library. It is a commodious building of red pressed brick and similar in style to the Administration Building. In its construction no pains or expense have been spared to make it sanitary, fireproof, and in every possible way an ideal building for a completely graded training school from the pre-school and kindergarten to the senior year of the high school, inclusive. An expenditure approaching \$300,000.00 has been made to provide a training school center comparable in every way with any building in the country devoted to similar use.

**INDUSTRIAL ARTS**—The Simon Guggenheim Hall of Industrial Arts is a beautiful building, constructed of gray pressed brick. It accommodates the departments of industrial education and art, including the major branches of handwork and art training applicable to the highest type of public school of the present and immediate future. This building is a gift to the College from Senator Simon Guggenheim.

**CONSERVATORY OF MUSIC**—The Conservatory of Music was formerly the president's home. The large, attractive, and home-like property, formerly the center of much social life on the campus, became the home of the Conservatory of Music with the opening of the summer quarter, 1924. It is well arranged for studio work, private and class lessons, with opportunity for the segregation of the different music departments. A large recital room is located on the top floor.

**HOME ECONOMICS PRACTICE HOUSE**—In order that students pursuing studies in home economics shall have practical training, the College maintains this building. It is a practice house of five rooms and is used for demonstrations in home furnishings and housekeeping.

**CLUBHOUSE**—This is the center of social life on the campus. An immense reception room stretching the entire width of the building affords a most appropriate setting for social occasions, both formal and informal. A combination veranda and sun parlor, which extends around three sides of the building, is the scene of many cozy afternoon teas, presided over by students and faculty. On the lower floor there is a most attractive private dining room complete in appointments, with a fully equipped kitchen close by. The lower floor also contains the grotto, which is the scene of parties practically six nights a week during the college year.

**HOME ECONOMICS BUILDING**—This is a structure similar in construction, color, material and architectural design to the Industrial Arts building. It is three stories high and contains ample room for all the classrooms, laboratories, kitchens, dining rooms, and workrooms for a well-organized department of home economics in a teachers college, including both household arts and household science.

**GYMNASIUM**—The newest building on the campus is Gunter Hall of Health, a name of far greater significance for the college gymnasium of today. This building is regarded as one of the most attractive, commodious and complete structures in every detail given over to the work of developing healthy bodies, to be found anywhere in the entire west. The building is located just south of the administration building and covers a part of the old athletic field. It measures 152x244 feet. The main gymnasium floor is 100x150 feet, with a basketball court 45x88.6 feet. Provision is made here for seating capacity of 3000 during basketball games and when used as an auditorium, as it frequently is, it has a seating capacity of 3800. There is another playing floor, measuring 50x100 feet, for the exclusive use of girls and in addition to auxiliary gymnasiums for class work. Accommodations are provided for five classrooms for use of the physical education department. The physical education and athletic departments, as well as the medical advisers for both men and women, have their offices located in the gymnasium.

A swimming pool 30x75 feet is an attractive feature of this new structure on Teachers College campus. The building is constructed of a specially made gray brick with terracotta trimmings. Its architectural lines are a combination of cathedral and gothic and make it one of the most imposing structures on the campus.

THE DORMITORIES—On a plot of ground south of the main campus proper the College maintains a Dormitory Triangle on which three attractive and serviceable dormitory units accommodate a limited number of students. It is planned at some later date to add to the dormitory provisions. Each of the three buildings now in use houses from thirty to fifty students. The small houses make it possible to maintain the atmosphere and custom of a well-ordered home. Each building is in charge of a director. The rooms are airy and well furnished. Each is provided with two single couch beds, two closets, and with hot and cold running water. Each house has a large and delightful living room, a kitchenette, and facilities in the basement for washing and ironing. No meals are cooked in the houses. The kitchenettes are for social purposes and for emergency cooking only.

Though time is very precious, divided as it is among classroom studies, departmental clubs, and extra-curricular activities, the hall girls make it possible to have fall getting-acquainted parties, with popcorn and fudge accompaniments, winter story hours in the attractive living rooms, made more attractive by firelight and candle glow, and spring waffle breakfasts in the clubhouse or picnic suppers in the ravine.

Belford Hall is the largest of the three. It has accommodations for fifty-two girls. This hall was named for Mrs. Frances Belford, a prominent Colorado woman, who for many years was on the Board of Trustees of Colorado State Teachers College.

Decker Hall is located east of Belford. It has accommodations for thirty-one girls and a director. It was named for Mrs. Sarah Platt Decker, who was not only prominent in Colorado, but known throughout the country as a pioneer worker in the Women's Club movement. She was president of the National Federation of Women's Clubs for many years.

Gordon Hall, south and west of Belford, has accommodations for thirty-one girls and a director. It was named for Mrs. Sophia Park Gordon of Pueblo. Like Mrs. Belford and Mrs. Decker, she was an active worker for civic and social betterment. She was one of the most active members on the Board of Charities and Corrections in the State of Colorado.

Only freshman girls now occupy the dormitories. This ruling was made in order that young girls away from home for the first time might be better cared for. After a girl has been in college a year, she can more easily find a suitable room in a private home. During the summer quarter, older students may live in the halls.

Each student living in the College dormitories is expected to care for her room and to provide the following articles:

- Two pairs of sheets, 72" by 90" in size, for a single bed.
- Three pillow cases of 42-inch tubing
- Three bath towels
- Three face towels
- Three wash cloths
- Two blankets and one comforter
- One mattress pad 36" by 76"

In addition to these, each student may bring her own sofa cushions, pictures, pennants, and other articles for decoration and personal comfort.

Rooms rent at \$25.00, \$27.00 and \$28.00 per quarter for each student, with two students in each room.

Students who make applications for a room in the dormitories will deposit \$7.00. This deposit will be applied to the room rent the student pays for the quarter. Rent will be paid in advance for each quarter. In no case will rooms be rented except upon the quarterly plan. Students desiring rooms in the dormitories are requested to write to the head of the housing bureau at their earliest convenience, in order that their names may be placed upon the waiting list.

**OTHER BUILDINGS**—Other service buildings, such as heating plant, garages, automobile repair shops, and the like, are maintained.

#### THE CAMPUS

Surrounding the buildings is a beautiful campus of sixty-five and a half acres. It is covered with trees and grass and dotted here and there with shrubs and flowers.

#### JACKSON FIELD

Just two blocks from the main campus is located the athletic field. It is one of the more recent acquisitions and is called Jackson Field, named for Charles N. Jackson, Greeley member of the Board of Trustees. The field covers about twenty-three acres and affords ample space for the varied lines of sport incident to college life. This is not simply a field; grass, trees, and shrubbery make it attractive to the eye now, yet plans for the future promise an athletic field of actual beauty.

The football field is surrounded by a quarter-mile track, with a bank on the west side forming an amphitheater with a present seating capacity of 5000 and room for 3000 more seats.

The baseball diamond and practice field is separate and apart from the football field. It is located east of the cinder track and the football field.

The Woman's Physical Education Department has its own athletic field, adjoining Gunter Hall of Health.

#### SCHOOL GARDEN

One of the pleasing features of the spring, summer, and fall quarters of the school is the school garden. This garden occupies several acres of ground and is divided into four units—the conservatory, the formal garden, the vegetable garden, and the nursery. From the conservatory the student passes into the large formal garden, where all kinds of flowers, old and new, abound. Here may be found the first snowdrop of early March and the last aster of late October.

#### MUSEUM OF NATURAL HISTORY

The museum of Colorado State Teachers College is fully developed for actual use. The objects in the museums are such as may be used by way of illustrating lessons in nature study, general science, geography, biology and anthropology.

#### EQUIPMENT

The institution is well equipped in the way of laboratories, libraries, gymnasiums, playgrounds, an athletic field, art collection, museums, and a school garden. The library has 67,000 volumes. There is ample opportunity to work out subjects requiring library research.

#### THE GREELEY WATER

The water supply of Greeley is obtained from the canon of the Cache la Poudre, forty miles from Greeley, in the mountains. The water is passed through settling basins and filters until all foreign matter is

removed. The supply is clear, pure, and ample for all needs of the city. The system was constructed at an expense of \$400,000.00 and is owned by the city.

#### MAINTENANCE OF THE COLLEGE

The maintenance of the College comes from a state mill tax and from special appropriations made by the legislature.

#### GOVERNMENT

Colorado State Teachers College is under the management of a board of trustees of seven members appointed by the governor of the state. The state superintendent of public instruction serves ex-officio.

The control of student affairs in the larger phases of student policy is in the hands of the Associated Students, an organization of the entire student body. Every regularly enrolled student at the time of registration is required to become a member of the association and pay a quarterly fee of \$5.00, which admits the student to all Associated Student activities and conference athletics.

#### FUNCTION OF THE COLLEGE

The purpose of the College is to train teachers for public school service. Being supported by public taxation of all the property of the state of Colorado, the College aims first to prepare teachers for all types of public schools maintained within the state of Colorado. This includes rural schools, kindergartens, primary, intermediate grade, upper grade, junior high schools, and senior high schools. The College also accepts the responsibility of training supervisors for rural schools, principals, superintendents, teachers of home economics, industrial arts, fine and applied arts, training school teachers, teachers of defective and atypical children, teachers for adult night schools, etc.

While the College is supported for the training of Colorado teachers, it welcomes students from any state or country and sends its teachers wherever they may be called. Students come to Colorado State Teachers College from many states and its graduates go in large numbers into the neighboring states and in smaller numbers into distant states and countries.

The College recognizes as its plain duty and accepts as its function the training of students to become teachers in every type of school at present supported by the state, to meet all the demands of the public school system, to forecast those improvements and reforms which the evolution of public systems of education is to bring about in the immediate future, and to train teachers to be ready to serve in and direct the new schools which are in process of being evolved.

#### STANDARD OF THE COLLEGE

It is the purpose of the trustees and faculty of Colorado State Teachers College to maintain a high standard of scholarship and professional training. Those who are graduated are thoroughly prepared and worthy of all for which their diplomas stand. It is the policy of the school by making all graduates "worthy of their hire" to protect those who employ them, for in so doing it protects no less the graduates and the children whom they teach.

As a regular member of the North Central Association of Colleges and Secondary Schools, and of The American Association of Teachers Colleges, Colorado State Teachers College is recognized by all of the institutions of higher learning, and credits earned in this College are acceptable at their face value in all of the colleges and universities in the United States.

## PHYSICAL EXAMINATIONS

A thorough health examination is required of each student as soon as practical after registration and thereafter once each year. Matriculation is not completed until this examination has been made and recorded, and students are not graduated unless the examinations are attended to regularly and promptly. The medical advisers keep regular office hours for free consultation concerning personal health problems. These examinations and conferences have for their purpose the prevention of illness and the promotion of vigorous health of students.

## FEES AND EXPENSE

The expense of attending Colorado State Teachers College is as low as can be made possible by careful management. The total expense may be estimated by taking into account the three largest items: board, room, and college fees.

**TUITION**—1. Tuition is free to Colorado students.

2. Tuition to non-Colorado students is \$5.00 per quarter.

**FEES**—

1. **MATRICULATION FEE**—\$5.00

Paid but once and at the time of matriculation. It covers all entrance costs such as photograph, classification test, English test, achievement test, teaching aptitude test, physical examination, and the necessary blanks in the registrar's office.

2. **INCIDENTAL FEE**—\$8.00 per quarter

This fee includes all incidental costs of students for one quarter.

3. **LIBRARY FEE**—\$2.00 per quarter

Gives the student the use of excellent library facilities, including 320 magazines each month and 67,000 books. All the income from this fee is used for this purpose.

4. **PHYSICAL EDUCATION AND HEALTH FEE**—\$2.00 per quarter

This fee entitles students to free medical attention on the campus (the college employs two full time physicians and two registered nurses). It also includes free use of the gymnasiums, swimming pool, etc.

Fees for individual lessons in piano, organ, violin, and other musical instruments, and voice are extra in the College Conservatory of Music. (See the section in the catalog under heading Music.)

The regular courses for the training of teachers in public school music, supervision of music, etc., are free.

**TEXTBOOKS**—Students may obtain the regular textbooks at the College bookroom.

## HOUSING REGULATIONS

The college requires all women students to live in approved rooming houses. For this reason, it is necessary that students apply to the head of the housing bureau in the office of the dean of women for a list of approved rooms. No student should rent her room by mail. Prospective students are urged to come a few days before the opening of the quarter to personally select their rooms. The housing bureau does not take the responsibility of reserving rooms except in the dormitories.

All housing accommodations for women must be approved by the dean of women before permanent registration. The office of the dean of women is open during the month of September for the sole purpose of consulting with women students and placing them in approved houses.

It is advised that students attending College for the first time come several days or even a week before the beginning of the fall quarter that they may be satisfactorily located. No rooming houses will be allowed on the approved list if they do not have single beds and comfortable bathing and heating facilities.

All students and householders are asked to sign a contract covering arrangements concerning rent, moving, and the regulations as to extra fees, heat, light, and hot water.

No student is allowed to move within a quarter except under unusual circumstances and with permission from the dean of men or the head of the housing bureau.

Students who wish to find roommates after they arrive in Greeley should come to the dean of women's office for a list of those desiring roommates.

**BOARD AND ROOM**—The dormitory triangle provides housing for 114 women students. Each room is provided with two beds and with complete accommodations for two students. Rooms in dormitories cost from \$25.00 to \$28.00 each student for a quarter. Rooms outside of the dormitories rent from \$30.00 to \$54.00 for one in a room and from \$30.00 to \$42.00 for two in a room for each student for a quarter. Table board averages \$6.00 per week.

Board .....	\$ 72.00
Room .....	33.00
Matriculation fee .....	5.00
Physical Education and Health fee .....	2.00
Incidental fee .....	8.00
Library fee .....	2.00
Student Association fee .....	5.00
Total for a quarter (12 weeks) .....	<u>\$127.00</u>

Add to this your own estimate for travel, clothes, laundry, books, amusements, and the like.

## THE SUMMER QUARTER

The summer quarter of 1930 will in general follow the plans that have prevailed during the past few years. Each instructor will include all the material in his courses that he regularly uses and will give full time to each topic. A student will carry sixteen hours of work as in other quarters.

The policy of bringing in from other institutions not only lecturers, but classroom teachers as well, will be continued and extended. A large corps of lecturers and teachers from other educational institutions will be in Greeley to give the best they have to the summer school students.

The summer school of Colorado State Teachers College began its work in 1904 with a small faculty and about two hundred students. In 1910, practically the whole faculty, exclusive of the training school and high school teachers, remained to teach through the six weeks of the summer school. In that year there were 443 students. In 1918, the summer term was placed upon an academic level with the other quarters of the College year. The term was lengthened to a quarter and the credits were made equal in value with those of the College year. With this step the College entered upon the four-quarter year. Today the teachers not only of Colorado, but of neighboring and distant states as well, recognize the fact that the College is doing a large service to the profession of teaching by making it possible for active teachers to keep up with the development of modern educational practice and to continue their professional education without losing time from their teaching. Nearly three thousand teachers now avail themselves of the opportunity.

Admission to the College at other times is limited to those who have fifteen units of high school work. The strict observance of this rule during the summer would make it impossible for hundreds of experienced teachers, who are not high school graduates, to get into touch with all the new movements in education which the College faculty and visiting instructors are presenting to the summer quarter students. The College opens the summer classes to all who would profit by the instruction offered.

Any student twenty years of age or over may be enrolled in Colorado State Teachers College for the summer quarter without reference to meeting the College requirements for admission. The College believes it can render a valuable service to the teachers of Colorado and surrounding states by allowing any mature man or woman who is teaching or expecting to teach, but who has not graduated from a high school, to enroll in the College for the summer quarter and take such work as he or she may be able to carry.

No College credit will be recorded, however, for any student until the requirements for college entrance have been fully met. A record of attendance and work will be kept. This may later be transferred to the permanent records and counted toward graduation when the entrance requirements have been complied with.

## EXTENSION DEPARTMENT

To enable teachers in active service to continue their professional education while teaching, the College maintains an Extension Department which, through its three plans of work, now enrolls four thousand students each year.

1. **EXTRA-MURAL CLASSES**—Classes are conducted by members of the College faculty in centers that can be reached conveniently. These classes meet once a week for seventeen weeks for a period of ninety minutes.

2. **EXTENSION CLASSES**—These classes are organized in more distant centers, and are taught by superintendents, principals, and teachers appointed by the director of the Extension Department. These instructors to be eligible for appointment must possess educational qualifications equivalent in all respects to those qualifications required of resident faculty members. The outline of the course is made by the College instructor who gives the residence course. Seventeen meetings of ninety minutes each.

3. **CORRESPONDENCE COURSES**—For the convenience of those who cannot meet in extra-mural classes or in extension classes the College provides individual correspondence courses. Each course consists of a set of study units, which are worked through by the student. The student's response is made in writing to the instructor who reads and grades the papers. In all cases the instructors grading the correspondence papers are regular faculty members.

**LIMITATIONS OF EXTENSION CREDIT**—Extension credit as used in the following paragraphs includes credit earned through extra-mural courses, extension classes and correspondence study. These terms are defined in the paragraphs above.

Since September 1, 1926, students have not been permitted to apply more than twenty-four quarter hours of extension class credit or correspondence credit toward the two-year course or forty-eight quarter hours of extension class credit or correspondence credit toward the Bachelor of Arts degree course.

Beginning with September 1, 1929, twenty-four quarter hours of extension credit (all types) is the total number of hours which may be applied toward meeting requirements for the completion of the limited certificate, two-year course; thirty-six quarter hours is the total of extension



credit which may be applied toward meeting requirements for the completion of the life certificate, three-year course; forty-eight quarter hours is the total of extension credit which may be applied toward meeting the requirements for the completion of the Bachelor of Arts degree, four-year course.

Not more than one-half of the total number of quarter hours of extension credit as indicated in the above paragraph may be completed by correspondence.

These limitations will not be retroactively applied to any student who has completed (in accordance with regulations printed in the college catalogue at the time of enrollment) extension credits in excess of the totals enumerated above.

Students whose extension class or correspondence credit earned before September 1, 1926, exceeds these limitations may apply all extension credits earned before that date to meet graduation requirements.

Extra-mural courses taken between September 1, 1926, and September 1, 1929, are not included in the limitations of extension credit.

If any extension class or correspondence course was taken after September 1, 1926, which increased the total credit beyond twenty-four and forty-eight hours respectively, such course may not count on present graduation requirements. Likewise, any extension credit (all types) completed in excess of these specified limitations after September 1, 1929, is automatically void so far as graduation requirements are concerned.

Students who expect to graduate while in non-residence must communicate with the registrar before the middle of the quarter so that advance arrangements may be made. In such cases, the last extension course, if in progress, must be completed and graded ten days before the end of the quarter in which the student expects to graduate.

DEPARTMENT BULLETIN—The department publishes a bulletin giving in detail the regulations governing extra-mural, extension class, and correspondence courses, and listing all the many courses open to teachers through this service. This bulletin may be had upon request.

#### TEACHER PLACEMENT BUREAU

The College maintains a bureau to serve graduates seeking positions and school boards and superintendents seeking teachers. There is no charge for this service beyond a small one to cover in part the cost of assembling data concerning nominees. Superintendents and school boards are invited to visit the College, to make use of the placement bureau in looking for teachers, and to meet applicants in whom they are interested. Between October 1, 1927, and October 1, 1928, there were 518 graduates of the College who obtained positions through the placement bureau. These positions were in twenty-seven states of the Union. One graduate obtained a position in Brazil.



**PART III**  
**THE TRAINING SCHOOLS**



## THE TRAINING SCHOOLS

The training schools have a two-fold function. First, they train college students in the theory and art of teaching. Second, they maintain as nearly as possible an ideal elementary and secondary organization.

The fundamental purpose of a training school is not to serve as a research laboratory, but rather to serve as a laboratory in which the student verifies his educational theory and principles. The Training School, as a laboratory, is a teaching and testing laboratory, rather than a research laboratory. It provides an opportunity for student teachers who have a sufficient knowledge of subject matter and the theory and principles of education to clarify these and receive practice in the solution of the daily problems and management under the supervision of expert training teachers. New methods that save time, new schemes for better preparing the children for life, new curricula and courses of study are continually considered by this school and tried out, provided they are sound educationally. The aim is not to develop a school that is entirely different from the elementary and secondary schools of the state, but to reveal conditions as they are and as they should be. The Training Schools strive to lead in the state in all that is new and modern. Effort is made to maintain such standards of excellence in the work that it may at all times be offered as a demonstration of good teaching under conditions as nearly normal as possible in all respects. Untrained and unskilled teachers do not practice on the pupils. This problem is solved by having in each grade or subject a trained teacher, one chosen with the greatest care, whose personality, native intelligence, and training fit him for the double duty of teaching student teachers to teach and teaching children. The training teacher is at all times responsible for the entire work of his grade or subject. The Training Schools are planned on the theory that the best interests of student teachers and the best interests of the elementary and secondary pupils can be made to harmonize. Whatever interferes with the proper development of one interferes with the proper development of the other.

The Training Schools maintain a complete elementary and secondary school system from the pre-school and kindergarten to the twelfth year. Students are required to take one quarter of observation (Ed. 2a) and one quarter of student teaching (Ed. 2b) in the Elementary or the Junior High School some time during their second year in Colorado State Teachers College. A second quarter of teaching may be elected, and in most cases is very advisable. Student teaching in the Training Schools includes conferences, observations, supervision, lesson plans, and teaching on the part of the College students. Scheduled group conferences are held every Tuesday at four o'clock.

### ELEMENTARY

The College Elementary School is a complete elementary school containing pre-school, kindergarten, first, second, third, fourth, fifth, and sixth grades.

The Elementary School exists for the purpose of training students who expect to teach in the elementary grades of the public schools. The students enrolled for work in this school spend their time in observing the training teacher and in teaching. No student whose knowledge of the subject matter of the elementary grades is inadequate for successful teaching is allowed to enroll for student teaching in the Elementary School. Each student must pass satisfactorily an achievement test as one of the prerequisites for student teaching.

The course in pre-teaching observation (Ed. 2a) enables students to orient themselves in their major field, to learn how the training teacher applies principles of teaching to actual classroom situations, to observe the work of the pupils in a given grade, and to become familiar with the

subject matter of the grade observed. It also enables students to learn the names of the pupils and to distinguish outstanding characteristics of the pupils whom they will teach the following quarter.

During the period of student teaching (Ed. 2b) the work of the classroom is put more nearly into the hands of the student teachers. They continue to learn the best practices through observation of the training teacher and apply the knowledge thus gained to their own teaching. Through close supervision and conferences with the training teacher, they learn how to improve their instruction. No student is allowed to continue teaching for any considerable period of time when the class is not making progress under that individual's instruction.

Assignments for work are made through conferences with the principal of the College Elementary School.

### SECONDARY

The Secondary Training School is a complete secondary school unit containing the Junior High School (grades seven, eight, and nine) and the Senior High School (grades ten, eleven, and twelve).

The primary function of the Secondary School is to train that group of teachers who expect to enter the field of secondary education. A minimum of one quarter of student teaching is required of students in the senior college who expect to take their Bachelor of Arts degree. Three years of college training are prerequisite to student teaching in grades ten, eleven, and twelve. In the high school, the student teacher spends about two-fifths of his time in teaching and the remainder in observation. When not teaching, the student teacher is held responsible for preparation and participation in the discussion of the recitation just as any other member of the class.

Students will select the subjects they teach upon the recommendation of the head of the department in which they are majoring and of the principal of the Secondary School. Students who have not fulfilled the teaching requirements in the junior college will be held for preteaching observation in the high school as a prerequisite for eight hours of student teaching.

### EXTRA-MURAL STUDENT TEACHING

In addition to the campus Training School the college uses two school systems off the campus as teacher-training centers. One is the Big Bend school eight miles from Greeley and the other is the Gilcrest school three miles farther south. The Big Bend system is organized with primary, intermediate, and junior high school departments. The Gilcrest system includes an elementary school with primary and intermediate departments and a six-year high school. There is an experienced training teacher in charge of each of the departments in these schools. Student teachers are assigned to these schools for a full half day for twelve weeks. The students are paired; while one is attending college classes the other is doing student teaching. The college provides a thirty-passenger bus for the transportation of the student teachers to and from the college. Three round trips are made each school day.

### REQUIREMENTS IN STUDENT TEACHING

1. No student is eligible for student teaching whose college grades average below 2.5 prior to his application for student teaching. The required amount of student teaching for the two year course shall be one quarter. No credit will be given for less than a full quarter of teaching.
2. As a prerequisite to one quarter of student teaching (Ed. 2b) each student shall be required to spend one quarter in a systematic scheduled class in observation (Ed. 2a) with the training teacher with whom he is to teach the following quarter.

3. Each student shall be required to pass satisfactorily an achievement test and make a grade not less than "C" in Ed. 2a, as prerequisites to student teaching (Ed. 2b).

4. Each student making a grade of less than "C" in student teaching shall be required to repeat the course. A student receiving a grade of "F" in two quarters work in student teaching is not permitted further enrollment in the Training Schools.

5. The required amount of student teaching in the senior college for the degree shall be one quarter taken in either the elementary school (Ed. 102) or the high school (Ed. 103) provided the teaching requirements in the junior college have been met.

6. One additional quarter of student teaching may be elected in the junior college and one in the senior college.

7. Mature students who submit the required evidence of at least three years' satisfactory experience may substitute the required student teaching for an advanced course in College upon the approval of the director of Training Schools under the following conditions:

- a. A score above average on the classification test
- b. A score above average on the English exemption test
- c. A grade of "B" on the achievement test
- d. A score above average on the teaching aptitude test
- e. A grade of less than "C" (the average) in two college courses within one quarter disqualifies.

f. No exemption is allowed where students have changed their major and have had no teaching experience in their new field.

g. A formal application must be made for exemption prior to the quarter of graduation and filed with the secretary of the department of training schools. All students will be held for the requirements for exemption in effect at the time of application.

h. No course taken prior to the application for exemption will be accepted for substitution; nor shall this course be a core or departmental required.





PART IV  
GRADUATE WORK



## GRADUATE WORK

The Graduate School recognizes two classes of graduate students: (1) Those who wish to enter and become candidates for the degree, Master of Arts; (2) Those who having taken the Bachelor's Degree wish to broaden their education without reference to a higher degree.

## ADMISSION TO THE GRADUATE SCHOOL

1. Application for admission to graduate study for either of the purposes named above must be made to the registrar of the College. Formal blanks for this purpose will be furnished by his office.
2. The requirements for admission are:
  - a. The Degree of Bachelor of Arts, Philosophy, Science, or other four-year degree from a reputable institution authorized by law to confer these degrees and approved by this institution
  - b. Official credentials to be filed with registrar giving (1) a record of the high school work, (2) a transcript of the undergraduate, college or university grades
  - c. Satisfactory classification test scores to be filed with the registrar as a matter of record

Excess undergraduate work taken in Colorado State Teachers College may be applied toward the Master of Arts degree, provided the student files with the registrar prior to the time the work is done a statement from the head of his major department granting him the privilege to do this. Such credit will be granted only to students who in their fourth year do not need all of their time for the completion of their undergraduate work. The graduate class card (pink) must be used by students who wish credit for courses taken under this provision.

After satisfying the registrar in regard to his admission to the Graduate School, the student shall at once plan with the head of his major department a tentative three-quarter program of courses.

1. The student's first quarter in the Graduate School is considered to be a test of his ability to do acceptable graduate work. Any student whose record of personal qualifications at the end of the first quarter are unsatisfactory will not be admitted to candidacy for the degree.

Admission to the Graduate School does not guarantee admission to candidacy for the Master of Arts Degree.

## ADMISSION TO CANDIDACY FOR THE MASTER OF ARTS DEGREE

1. Not later than the tenth week of the student's first quarter, application for admission should be made to the registrar of the College. Formal blanks will be furnished by his office.
2. Before a student can be admitted to candidacy, he must meet the following requirements:
  - a. He must have demonstrated his ability to do a high grade of work in his field of specialization and must have shown promise of ability to do research
  - b. The average of his first quarter's grades must be above the mean grade of "C"
  - c. He must have given evidence to the director of the Training School of his ability to teach. This may have been done by either of the following ways: (1) Successful teaching experience; (2) Successful student teaching
  - d. He must have established satisfactory classification test scores

- e. He must have demonstrated during his first week in departmental Research 223 a proficiency in organizing and expressing thought in writing. If the student shows an inability to do this, he is required to take English 20 *without credit* during his first quarter of graduate work.
  - f. He must have shown his personal fitness to become a candidate
  - g. The head of the student's major department must have filed with the registrar a statement endorsing the student for admission to candidacy, and giving the subject of his thesis. Blanks for this purpose will be furnished by the registrar's office
3. A candidate may be required by the head of his major department to pass either a written or an oral preliminary examination before he is recommended to the Graduate Council for admission to candidacy.
  4. Graduate students will not be permitted to engage in more than one extra curricular activity per quarter and then only when they reach a 50 percentile rank on the intelligence test and have made an average of "B" or more in their course work. Extra curricular activities shall be construed to include athletics, debates, oratory, dramatics, student publications, student participation in government, and the Boosters Club.

#### EXTENSION WORK

No graduate credit is given for correspondence work. Graduate credit will be given for extra-mural classes of graduate rank. In order to register for graduate credit in extra-mural classes, the following procedure should be observed:

1. The student shall file with the registrar proof of having received a bachelor's degree from a reputable institution, together with a transcript of his work in such institution and the preparatory credits upon which he was originally admitted; he shall, also, indicate the department in which he desires to major  
Upon receipt of such proof
  - a. The registrar shall promptly notify him of his admission to the Graduate School
  - b. He further shall notify him that it will be necessary for him to arrange a program of studies with his major adviser and shall indicate who this adviser is to be
  - c. He shall further advise such student that the specific course he plans to take in extra-mural classes may or may not fit into the program of studies leading to the master's degree, and that the student can determine that only by consultation with his major adviser

#### TIME LIMIT FOR DEGREE

There are two main types of residence work—that carried on during the regular academic year (fall, winter, and spring quarters) and that carried on entirely in the summer quarter. Continuous, systematic study as much as is possible in either case is very essential. Hence the following regulations are made:

1. Students entering upon graduate work during any one of the regular academic quarters (fall, winter, or spring) must complete and have approved by the Graduate Council all graduate work including the thesis within two years from the time graduate work is begun, or additional requirements may be made by the Graduate Council.

2. Students will restrict their graduate work entirely to the summer quarters must complete and have approved by the Graduate Council all requirements including the thesis within five summer quarters, or additional requirements may be made by the Graduate Council.

#### REQUIREMENTS FOR THE DEGREE

1. Beyond the four-year undergraduate course, the student working for the degree, Master of Arts, must earn graduate credits amounting to forty-eight quarter hours. Three quarters of work in residence are required, but one quarter of approved graduate work may be transferred from another institution; or sixteen hours of approved graduate work may be done in extra-mural group classes conducted by members of the Teachers College faculty. In no case shall these provisions reduce the two full quarters of work (thirty-two hours) required to be done on the campus.
2. Research culminating in the writing of a thesis upon some selected problem shall be an integral part of the work required for the degree. A maximum of nine hours credit may be granted for this research.
3. Data for a thesis study may be collected in absentia without credit if approved in advance by the head of the student's major department. The thesis, however, must be written while the student is in residence.
4. Every student must register for Research 223 in his major department during his first full quarter of regular graduate work.
5. The student must have at least sixty-four quarter hours of undergraduate and graduate work in his major or closely related subjects.
6. He must have not less than thirty-two hours of undergraduate work.
7. No graduate credit will be given for courses numbered under 100, or for scattered and unrelated courses. All courses numbered under 200 require additional work for graduate credit. The undergraduate rule as to load applies to the Graduate School. In determining the maximum amount of work, research upon thesis must be included within the limit stated.
8. At least four weeks before the date upon which the degree is to be conferred, three copies of his thesis must be filed with the head of his major department for examination by the Thesis Reviewing Committee before going to the Graduate Council for final approval.

The Thesis Reviewing Committee shall consist of the head of the student's major department, a representative of the Graduate Council appointed by the chairman, and the instructor who is the thesis adviser, provided he is other than the head of the student's major department.
9. At least two weeks before the date upon which the degree is to be conferred, the complete thesis in final form must be approved and two copies, properly signed, filed with the Graduate Council, one of which must be an original copy. Also two dollars to bind these copies must be deposited with the business agent by the student.

10. The thesis must conform to definite standards. It must be typewritten on paper of good quality, size 8½ by 11 inches, and be properly bound. The arrangement of the title page is as follows:

COLORADO STATE TEACHERS COLLEGE

(Title of Thesis)

A Thesis Submitted in Partial Fulfillment of the Requirements  
for the Degree of Master of Arts

by

(Student's Name)

(Title of Major Department)

(Date)

11. The form of the approval sheet shall be as follows:

Approved by:

Thesis Adviser .....

Department .....

Thesis Reviewing Committee

.....

Department .....

.....

Department .....

Chairman of the Graduate Council

.....

Before final approval for the degree, the student may be held for an oral examination by the Graduate Council, assisted by the head of his major department.

One week before graduation date, a brief typewritten digest of the thesis should be filed with the head of the major department, with the director of research, and one with the business agent to be bound with the copy of the thesis prepared for the library.

The Master of Arts degree shall be granted only by vote of the Graduate Council.

## FELLOWSHIPS, SCHOLARSHIPS, AND LOAN FUNDS FOR 1929-30

### TEACHING FELLOWSHIPS

Ten graduate teaching fellowships will be available for the school year 1929-30. Each fellowship carries a stipend of \$450, paid in nine equal installments. These fellowships are open to any man or woman who has a Bachelor of Arts degree and who is an exceptionally capable student. Fellows are required to teach at least six hours per week and may not register for more than twelve hours of courses per quarter. Application for these fellowships should be made to the vice-president of the College.

### BOARD OF TRUSTEES SCHOLARSHIPS

The Board of Trustees of Colorado State Teachers College issues six scholarships each year. Four of these scholarships known as the "Board of Trustees Scholarships" are awarded at the spring commencement to the two men and the two women having the highest scholastic standing in the sophomore class. These scholarships cover the regular college fees, including laboratory fees, for the remaining two years in college. The two additional scholarships are awarded to the man and woman in the senior class having the highest scholastic standing. These scholarships are known as the "State Superintendent of Public Instruction Scholarships" and cover the regular college fees for one year of graduate work.

## JOINT SCHOLARSHIPS

In accordance with joint action taken by the six Colorado state institutions of higher learning, the College authorizes the awarding of scholarships in accredited high schools good for four years. Such scholarships are awarded under the following conditions:

1. Scholarships are to be granted by the high school authorities.
2. Each scholarship will be good for four years' tuition or fees in ANY state institution of higher learning in Colorado. (This does not include student association fees, neither does it include laboratory fees for certain state institutions, nor does it apply to the professional schools of the University of Colorado.)
3. One scholarship will be granted for each twenty-five graduates, or any part thereof, up to five scholarships, which is the maximum to be granted by any high school. The following table will show the number to be granted:
 

1 to 25 graduates	1 scholarship
26 to 50 graduates	2 scholarships
51 to 75 graduates	3 scholarships
76 to 100 graduates	4 scholarships
Over 100 graduates	5 scholarships
4. Each scholarship must be granted on the basis of academic standing alone. If only one scholarship is granted, it must be given to the one having the highest average scholarship. If five are granted, they must go to the five highest in scholarship.
5. Scholarships will be honored only when presented by the person to whom granted, and no substitutions will be allowed.
6. Only graduates having two full years of work in the senior high school from which they graduate are eligible.
7. The graduate earning one of these scholarships must enter college at the opening of the following fall term, or it will not be honored.
8. If the holder of a scholarship fails to make average college grades during any term, the scholarship is void until the grades are again brought up to average.
9. All scholarships expire four years from the date of issuance.
10. A scholarship student may transfer from one state institution to another in the usual manner, and use the scholarship as long as he meets all other conditions.
11. Scholarships are not honored for attendance in summer sessions.

## DELTA PHI OMEGA GRADUATE SCHOLARSHIP

The Delta Phi Omega sorority offers a graduate scholarship with a stipend of \$150 for the school year of 1929-30. This is open to any student who wishes to pursue advanced study in preparation for teaching. First preference will be given to a member of the sorority. The scholarship is designed primarily to assist a student who is not financially able to continue college work, but scholarship and ability will be taken into consideration in the selection of the candidate.

## WAIVER OF FEES

This college will remit fees in cases of exceptionally worthy students interested in teaching as a profession and who do not qualify under the above scholarship plan. In each case candidates must be formally recommended by a committee of the high school faculty and passed upon by a committee comprising the registrar and two faculty members ap-

pointed by the president. This school will remit fees under these conditions, but to not to exceed a total of twenty-five students in any one year. This type of award is not negotiable and is not valid during summer quarters. With these qualifications it is valid for a period of four consecutive years from the date of issuance. The same rule concerning grades applies as in the case of joint scholarships.

### SCHOLARSHIP TROPHIES

#### THE JAMES D. BALL PRIZE

Twenty dollars in gold, the award of James D. Ball, assistant superintendent of the Denver Public Schools, is presented yearly to the athlete having the highest scholastic standing among the letter men.

#### HONORARY EDUCATIONAL FRATERNITY CUPS

The honorary educational fraternities on the campus, Sigma Pi Lambda, Phi Delta Kappa, and Kappa Delta Pi, offer four silver cups to outstanding, all around students, as evidenced by scholarship, citizenship, and general college activity participation. One of these cups is awarded to a sophomore girl, one to a sophomore boy, one to a freshman boy and one to a freshman girl. These cups are permanent become the sole possession of the students receiving them.

#### DELTA SIGMA EPSILON CUP

The Delta Sigma Epsilon sorority offers a silver cup to the outstanding sophomore boy or girl. This cup is temporary and passes from student to student at the close of each year.

### LOAN FUNDS

There are numerous loan funds, aggregating more than \$18,000, designed to help worthy students to complete courses in Colorado State Teachers College. It not infrequently happens that a promising student meets with unexpected loss, through sickness or other causes, which compels him either to leave school or to continue his work at the risk of low scholarship and overtaxed body and mind, unless he is able to borrow some money. It is for the purpose of meeting just such emergencies that these loan funds have been established.

Applications for loans are made to the treasurer of the College, who carefully investigates the record of the applicant, and grants his petition only in case he is satisfied that the applicant is worthy of such help, will be in a position to repay the loan within a reasonable time, and will be a credit to Colorado State Teachers College after graduation. The student furnishes a note acceptable to the treasurer and makes arrangement for its payment when due.

**SIGMA UPSILON GRADUATE LOAN FUND**—The Sigma Upsilon sorority has established a graduate loan fund to be used in helping advanced students to remain in college for the degree of Master of Arts. This fund is available to any student whether a member of the sorority or not.

**NORMAL STUDENT LOAN FUND**—The money constituting this fund consists of contributions from persons, classes, and organizations disposed to help in the work, and of the interest derived from loans. The freshman and sophomore classes of the College quite often contribute money left after meeting class expenditures to this fund. The freshman class of 1921-22 contributed more than \$200 for this purpose. The fund is intended particularly for those students who need some financial assistance in completing the first two years of work.

**SENIOR COLLEGE LOAN FUND**—This fund is an accumulation of money, contributed by four-year graduates and others who may be interested in creating a fund for those who desire to pursue a curriculum leading to the Bachelor of Arts degree. Already it has helped many worthy students to continue to the end of their four-year course.



**Y. W. C. A. STUDENT AID FUND**—The Young Women's Christian Association has a fund of several hundred dollars which is kept to aid students who need small sums to enable them to finish a quarter or a course. The fund is in charge of a committee consisting of the treasurer of the society, two members of its advisory board, and a member of the faculty. Loans are made without reference to membership in the society.

**THE WILLIAM PORTER HERRICK MEMORIAL FUND**—This fund, the gift of Mrs. Ursula D. Herrick, in memory of her husband, the late William Porter Herrick, consists of the principal sum of \$5,000. The proceeds or income of said fund are to be paid over and expended by the Board of Trustees of Colorado State Teachers College of Colorado, in aid of such worthy and promising undergraduate students of the College, of either sex, as the president of said College may from time to time designate; provided, however, that no student who uses tobacco in any form or who uses intoxicating liquors of any kind as a beverage shall participate in the benefits of this fund. The sum or sums, income or proceeds so expended by the said trustees shall be considered in the nature of a loan or loans to such students as may receive the same, and each of said recipients shall execute a note or notes promising to repay to said trustees the amount or amounts so received.

**THE GREELEY ROTARY CLUB LOAN FUND**—The Greeley Rotary Club has turned over to the Student Loan Committee of the College the sum of \$1,000 to be used as a loan fund for men students.

**HOSPITAL LOAN FUND**—The class of 1922 turned over to the Student Loan Committee of the College the sum of \$225 to be used as a loan fund for those who need financial assistance in meeting hospital or medical expenses.

**THE J. C. KENDEL MUSIC LOAN FUND**—This fund was started in February, 1924, from a balance turned over by the May Music Festival Committee for that purpose and is available to music majors only. In appreciation of the efforts put forth by Mr. Kendel in conducting the May Music Festival, the committee decided to call this fund "The J. C. Kendel Music Loan Fund."

**THE SARAH PLATT DECKER MEMORIAL FUND**—This fund, established on April 7, 1926, by the Sarah Platt Decker Memorial Association in memory of the late Sarah Platt Decker, consists of the sum of \$3,658 which is used as a loan fund for women students of Colorado State Teachers College under such terms as shall from time to time be determined by the Loan Fund Committee of the College.

## THE RELIGIOUS ASSOCIATIONS

**Y. W. C. A. AND Y. M. C. A.**—Realizing the necessity for religious and social culture in the school, and believing that much good comes of Christian association, a large number of interested students have organized themselves into the Young Women's Christian Association and the Young Men's Christian Association. Meetings are held at various times, and persons who have given considerable thought to the life and aspirations of young people are invited to address the meetings.

**THE NEWMAN CLUB**—The Catholic students of the College are organized into the Newman Club, the work of which is similar to that of the other Christian organizations. This club has a membership of active young people. All three of the organizations have been co-operative in forwarding the religious work and welfare of the College.

## HONORARY FRATERNITIES

### PHI DELTA KAPPA

Phi Delta Kappa is an honorary professional fraternity in education open to men of junior, senior and graduate rank. It was founded in 1909 by the merger of education clubs in Columbia, Indiana, and Stanford

Universities. The chapter at Colorado State Teachers College is the thirty-seventh chapter of the fraternity and the first chapter in a state teachers college. Membership is open by invitation to upper class men students who have passed twelve quarter hours in education, who pledge themselves to teaching as their profession, and who meet certain character qualifications.

#### KAPPA DELTA PI

Kappa Delta Pi is a national honorary fraternity in education open to both men and women students of upper class rank. It was founded at the University of Illinois in June, 1911. The chapter at Colorado State Teachers College was established on February 28, 1920, as the eighth chapter of the fraternity and the first chapter in a teachers college. Membership in Kappa Delta Pi is open to upper class students who have ten quarter hours in education, who have been in residence for three quarters and who meet certain scholastic and character qualifications.

#### PI KAPPA DELTA

Honorary Debating Fraternity. The national honorary fraternity Pi Kappa Delta was the first honorary society to be installed in Colorado State Teachers College. It was installed in the College in the spring of 1918. The purpose of the organization is the encouragement of intercollegiate debate and oratory. Membership is limited to those who have taken part in recognized intercollegiate debates or oratorical contests, or are actively engaged in coaching such students.

#### GIFTS TO THE COLLEGE

From the beginning of the life of the College friends and organizations have been generous in making gifts of land, money, books, museum specimens, and other articles of value. The authorities of the College gratefully acknowledge their obligation to all these donors, and invite any who may feel inclined to make similar donations.

**PART V**  
**ADMISSION, GRADUATION, CREDITS**



## ADMISSION

The qualifications for admission to Colorado State Teachers College are four:

1. Graduation from a high school or secondary school fully accredited by the North Central Association of Colleges and Secondary Schools or by the State University of the state in which the high school is situated. The student must have passed in fifteen or more regular high school units. The college does not prescribe what the high school subjects shall be. It accepts any units that have been accepted for graduation by the secondary school.

**ADMISSION MAY BE UNCONDITIONAL OR CONDITIONAL**—Even though graduation from an accredited high school yields admission, only those whose rank in the high school graduating class is in the upper seventy-five per cent and whose scores in matriculation tests are correspondingly good are admitted unconditionally.

Candidates for admission in the lowest twenty-five per cent of the high school graduating class and whose scores in matriculation tests are correspondingly low are admitted on probation for one quarter. This group is given individual attention usually in the form of personal interviews for all in the questioned area. At the end of the probationary period the status of each student thus admitted will be definitely determined.

**GRADUATES OF UNACCREDITED HIGH SCHOOLS**—Applicants graduating from unaccredited high schools may be conditionally admitted on probation for one quarter if they make scores in the four matriculation examinations high enough to convince the Committee on Admissions of their ability to do college work successfully. Average scores on these examinations are usually accepted for admission. Success in studies during the first quarter of residence removes the student's name from the probation list and makes him or her a regular student subject to the same rules and regulations as apply to graduates of accredited schools. Failure to pass in ten hours of a regular fifteen or sixteen hour program in the first residence quarter or failure to make an average of 2.5 for the quarter cancels the conditional admission and makes it necessary for such students to withdraw indefinitely from the college.

**ADULT STUDENTS NOT HIGH SCHOOL GRADUATES**—Applicants twenty years of age or over who are not high school graduates are given conditional admission and placed on the probation list on the same terms as graduates of unaccredited high schools. Conditions for dropping or continued residence are also exactly the same.

2. The applicant for admission must be recommended by the principal of the high school from which the student graduated, or by some one authorized to act for him, as being to the best of his knowledge of good moral character.
3. The applicant is required to pass a health examination given by the College physicians. Those who have an active communicable disease or such physical defects as would interfere with their success as teachers are not accepted.

4. All applicants for admission are required to take a series of matriculation examinations to determine as nearly as possible the probability of success. These examinations are:
  - a. A standard intelligence test
  - b. A standard English test
  - c. A standard teaching aptitude test
  - d. A standard achievement test (knowledge of the subject-matter of the common branches taught in the public elementary and junior high schools)

The combined scores on these tests serve as a guide to the Committee on Admissions.

### MATRICULATION OF FRESHMEN

September 1929

**FRESHMEN ENROLLMENT**—All freshmen enrolling for the first time in this College are required to report at half past ten o'clock Thursday, September 26, 1929, to make complete arrangements for matriculation in the College. Each student must at that time present an official transcript of his or her high school record on the blank adopted by the Colorado-Wyoming Association of Registrars, must present himself or herself for a health examination and for the usual matriculation examinations. During the afternoons and evenings of the remaining days of the week the freshmen will be given instructions about the various phases of college life, and will find an opportunity to engage suitable rooming and boarding places. Reports on the acceptability of the student's credentials and upon the various tests will be ready by 9 o'clock Monday, September 30. Those who are accepted for entrance into the College will then complete their registration in classes during Monday, September 30. Upper class registration will take place on Tuesday, October 1, and classes will begin on Wednesday, October 2.

**FRESHMEN SECTIONS.** On the basis of the scores made in the English examination the freshmen class is divided into three sections as follows:

**SECTION A.** Those in the upper third on the test scores

**SECTION B.** Those in the middle third

**SECTION C.** Those in the lower third

Notice will be given each freshman student on Monday, September 30, stating which section he or she is assigned to.

Students in Section A have their courses coming in a certain sequence; those in Section B in another sequence; and those in Section C still another. In the diagram of the curriculum at the beginning of each departmental section in this catalog the subjects are arranged for each of these three groups of students.

### QUALITY OF WORK REQUIRED

The College does not encourage students who do poor work to continue in the institution. Two regulations designed to eliminate this class of students are in force. These are:

1. **THE TEN-HOUR RULE.** Any student in any quarter who fails to pass in ten hours of a regular program of fifteen, sixteen, or seventeen hours is warned in writing of his failure and has the following notation made on his permanent record: "Came under ten hour rule fall quarter, 1929. Warned." Such a student may continue in college on probation. For a second failure under this rule the student is notified in writing that he is indefinitely dropped from the college rolls.

A student carrying a limited program (less than fifteen hours) is required to pass in two-thirds of his program; for example, one making less than eight hours out of a twelve-hour program would get the same notice as would be given for failure to carry ten hours in a sixteen-hour program.

2. THE TWO-POINT-FIVE RULE. A student whose scholastic average is under 2.5 at the time he applies for an assignment for student teaching will not be given such an assignment. One whose scholastic average is less than 2.5 at the time he applies for graduation will not be graduated or granted a teaching certificate until he has by further residence study raised his total average to or above that mark.

NOTE: Students are not dropped from the rolls for failure under this rule except in unusual cases and then only after a full quarter's warning given by the vice-president.

NOTE: To determine the student's average the grade letters have the following values: A=5, B=4, C=3, D=2, F=1.

Typical example: Mary A. Black

Civ. 1	3 hrs	grade B=	12	
Biol. 1	3 hrs	grade C=	9	
Art. 14	4 hrs	grade A=	20	The total is 52.
Nat. St.	2 hrs	grade D=	4	Divided by 16 the re-
Eng. 4	3 hrs	grade F=	3	sult is 3.25
Phys. Ed.	1 hr	grade B=	4	
			<hr/>	
	16		52	

Typical Example: Martha B. White

Civ. 2	3 hrs	grade C=	9	
Ed. 2a	5 hrs	grade D=	10	
Music	2 hrs	grade B=	8	The total is 41.
Ed. 3c	3 hrs	grade D=	6	Divided by 17 the re-
Psych 2b	3 hrs	grade F=	3	sult is 2.41
Phys. Ed.	1 hr	grade A=	5	
			<hr/>	
	17 hrs		41	

Failure under the ten hour rule or withdrawal on account of an average below 2.5 does not prevent the student from continuing his or her work in another college. The registrar will issue a transcript of the student's record with the following note: "Colorado State Teachers College has no objection to this student's being admitted to any other college."

THE GRADING SYSTEM—The following grading system has been adopted by faculty action and has been in effect since October 1, 1924:

- A indicates superior work
- B indicates work above average
- C indicates average work
- D indicates work below average, but passing
- F indicates failure

A grade of A, B, C, or D, yields normal credit in any course taken. A course marked "F" carries no credit and may not be adjusted except by repetition of the course at a later time. Other markings may be used when necessary, as follows:

- "Inc.," Incomplete
- "W," Withdrawn

A course marked "Incomplete" must be made up within three months, or during the succeeding quarter, if credit is to be recorded for it. By special arrangement in advance with the vice-president or registrar and the teacher a longer time may be given. An "Inc." must be removed in any subject within three months of the closing date of the quarter, or in the case of summer students who do not attend during the regular year, twelve months. It is advisable to remove a condition early since members of the faculty are not always available for interview.

If a student withdraws from a class or from College without making formal arrangements with the vice-president, he or she will receive an F in all subjects. In either case the teachers concerned must

be consulted in order that their records may be correct. This must be done before the student leaves the campus. Should the student be obliged to leave because of an emergency, a letter giving all facts shall be filed with the vice-president within ten days, and if near the end of the quarter, before the closing date. No adjustment is possible after that.

**THE SCHOOL YEAR**—The school year is divided into four quarters of approximately twelve weeks each. These are:

1. The Fall Quarter
2. The Winter Quarter
3. The Spring Quarter
4. The Summer Quarter

This division of the year is especially well suited to a teachers college for it gives teachers in active service an opportunity equal to any of securing a complete education while actually teaching.

### CERTIFICATES AND DEGREES

#### I. THE LIMITED CERTIFICATE

The Limited Certificate, valid for a period of five years in the elementary schools, will be issued on the completion of the prescribed two-year course in the following curricula: Kindergarten, Primary, Intermediate, Upper Grades, and Rural Schools. This applies to students matriculating after September 1, 1928. Students having pursued work prior to that time will be permitted to complete the course leading to the Life Certificate as at present constituted provided said course is completed before Sept. 1, 1931.

#### II. THE LIFE CERTIFICATE

Upon evidence of a satisfactory teaching experience of two years (at least sixteen months) during the life of the Limited Certificate and the completion of forty-eight hours of additional prescribed or acceptable work, a Life Certificate to teach in the elementary schools of the state will be issued to holders of the Limited Certificate.

The diploma given upon the award of a degree is a Life Certificate to teach in any of the schools of the state.

#### III. THE BACHELOR OF ARTS DEGREE

The Bachelor of Arts degree is granted upon the satisfactory completion of four years of work. (See pages 57, 58 for details).

#### IV. THE MASTER OF ARTS DEGREE

See Part IV "Graduate Work," pages 39-42.

**ADVANCED STANDING**—Students who come to the College after having done work in another college, normal school, or university, will be granted advanced standing for all such work that is of college grade, provided that the institution in question has required high school graduation as a condition for admission. Those who receive advanced standing are required to take here all of the prescribed subjects in the course they select, unless these prescribed subjects or their substantial equivalents have been taken in the colleges and universities from which the students come. Heads of departments involved have the power to excuse students from taking these prescribed subjects within the major department. The vice-president must be consulted about exemptions from core subjects. No advanced standing is granted for additional units above the usual sixteen earned in the four-year high school course. All advanced standing is provisionally allowed pending the satisfactory completion of matriculation tests and one quarter's work.

**MINIMUM RESIDENCE REQUIREMENT**—The College does not grant any certificate or degree for less than three full quarters of resident study, during which time the student must have earned at least forty-eight



quarter-hours of credit. If the student's first graduation is with the Bachelor of Arts degree, he must have spent at least three quarters in residence. Students who have already taken the two-year course must spend in residence at least two additional quarters for the Bachelor of Arts degree. Correspondence students when enrolling in residence should apply to the extension department for an extension of time which will permit the completion of correspondence courses at a time when the student is not enrolled in residence courses. Students in residence are not permitted to enroll in correspondence courses during vacations except during the vacation between the end of the summer quarter and the beginning of the fall quarter.

### CREDITS

*Application for any certificate or degree must be made to the Registrar at least sixty days before the close of the quarter in which the certificate or degree is to be granted.*

**TIME LIMIT FOR COMPLETING COURSES**—A student is allowed four years after beginning resident work on a two-year course in which to complete that course under the conditions which prevailed at the time the student entered the College. Another four years is allowed to complete the work of the third and fourth years under the requirements in effect at the time the student begins resident or group extension courses of the third year. This extension of time is made to take care of those who must teach between the years of resident work. At the expiration of this time a student may continue in the course already begun, but must meet any new requirements which may have been adopted in the meantime. This is intended to cover conditions of admission and general changes, as well as any which may have been made within the student's major department. In any event, when a student graduates from a two-year course the current Year Book shall be his guide in the work of the third and fourth years rather than the Year Book used for the first two years.

**UNIT OF COLLEGE CREDIT**—All credit toward graduation is completed in "quarter-hours." The term "quarter-hours" means a subject given one day a week through a quarter for a year, approximately twelve weeks. Most of the College courses call for four recitations a week. These are called four-hour courses. A student usually selects sixteen quarter-hours, the equivalent of four courses each meeting four times a week, as his regular work.

### ENROLLMENT

The college enrolls students under the following classifications:

1. **RESIDENCE**—In this type of enrollment, students must successfully complete a minimum of twelve quarter hours each quarter, in order that it be counted as one of the required residence quarters.
2. **PART TIME**—Students may, with the consent of the College, enroll for any number of hours less than twelve.
3. **EXTRA-MURAL**—In this type of enrollment, students are enrolled in classes not taught upon the campus, but taught by faculty members.
4. **EXTENSION**—These students are enrolled in classes taught by extension instructors duly approved by the College.
5. **CORRESPONDENCE**—These students are enrolled in correspondence courses.

**MAXIMUM AND MINIMUM HOURS OF CREDIT**—A student registers usually for fifteen, sixteen, or seventeen hours, exclusive of a physical exercise course, each quarter. The average shall be not more than sixteen hours for any three consecutive quarters dating from the first quarter's work, or forty-eight for the year of nine months. If a student attends during the summer quarter, this average shall be understood to apply.

If the work is to count as a resident quarter, the student must carry at least twelve quarter-hours. A student who wishes to take a larger program than sixteen hours regularly must take one of the standard classification tests. Following the test, the student may carry seventeen or eighteen hours regularly, if the score is high enough to warrant it. In no case shall more than eighteen hours be allowed.

No credit will be allowed for physical exercise courses in the senior college. This does not apply to majors in physical education.

Not more than six hours will be accepted in the junior college.

**PART VI**  
**THE COURSE OF STUDY**



## THE COURSE OF STUDY

*Throughout this catalog courses numbered 1-99 are primarily first and second-year subjects; 100-199 are third and fourth-year. Those numbered 200 and above are graduate work. Senior college students must select at least two-thirds of their courses in the senior college.*

Colorado State Teachers College is a technical school whose sole function is to prepare teachers for the teaching profession in the same sense that medical colleges prepare physicians and surgeons, engineering schools prepare engineers, etc.

For this reason its curriculum is sharply differentiated from those of other technical schools and also from those of the colleges of liberal arts whose aim is to give a general rather than a specific training.

The curriculum in Colorado State Teachers College is formulated on the basis of four years of work. The following departments prepare teachers to receive the bachelor's degree:

Art	Educational Psychology
Biology	English and Literature
Chemistry	Foreign Languages
Commercial Education	Geology, Physiography, and Geog-
Education	raphy
Superintendents	History and Political Science
Principals for	Home Economics
Elementary Schools	Industrial Arts
Junior High Schools	Mathematics
Senior High Schools	Music
Supervisors and Teachers for	Physical Education and Athletics
Kindergarten-Primary	for Women
Intermediate	Physics
Upper Grades	Sociology and Economics
Rural Schools	
Training Schools	

Any student who wishes to take a two-year course leading to a Limited Certificate before the completion of a full four-year course must take such a certificate through the completion of all the core requirements and departmental requirements in one of the following curricula:

Kindergarten-Primary	Upper Grades
Intermediate Grades	Rural Schools

A student who expects to go straight through a four-year curriculum may major in any of the departments, but, except as noted above, can not get a certificate until the full degree course is completed. One who finally expects to complete a degree course in some other department than the ones listed in the Limited Certificate may, however, begin his course as a major in one of the four curricula and at the same time elect the requirements of the first two years of the department he finally expects to major in for the degree. At the end of two years he may take his certificate with a major, for example, in upper grade teaching. He would at that time have completed all the core requirements and departmental requirements of the upper grades curriculum, and also, the departmental requirements of the first two years of his four-year major, for example, history or geography. Then he may go out and teach for a time. When he returns to the College he may register as a major in the department of his own preference, and complete his four-year curriculum receiving the degree of Bachelor of Arts in the field finally chosen. During the first two years this student would register as a major in the education department. His adviser would be

the head of that department. In the third and fourth years his adviser is the head of the department finally chosen for the Bachelor of Arts degree curriculum.

**LENGTH OF COURSE**—The degree course is planned to occupy twelve quarters. Upon the completion of the course the degree of Bachelor of Arts and the Life Certificate will be granted. The courses leading to the (five year) Limited Certificate in kindergarten-primary, intermediate, upper grades or rural schools, occupy six quarters. Upon completion of three additional quarters and two years successful teaching experience the Life Certificate to teach in the elementary schools will be granted. A quarter is approximately twelve weeks in length.

### THE COURSE OF STUDY IN DETAIL

#### o THE PROFESSIONAL CORE

Each of the courses differs somewhat from the others in the subjects required by the department, but each course contains the following subjects:

**FIRST YEAR:** Science 1 and 2, English 0 and 4 (unless excused for proficiency), Hygiene 1, Education 1, Civilization 1, Music 25, Art 1, and a physical exercise course each quarter.

**SECOND YEAR:** Psychology 2a and 2b, Education 2a and 2b (pre-teaching observation and student teaching), Education 10, English 21 and 22, and a physical exercise course each quarter.

**THIRD YEAR:** History 125 and 126.

**FOURTH YEAR:** Sociology 105, Education 111, and a course in pre-teaching observation and student teaching.

The order of subjects shown above will vary some according to the section to which a student is assigned. The student should consult the diagram under the department in which he is majoring.

**THE DEPARTMENTAL REQUIREMENTS:** In addition to these "core" subjects required of all students, each student is required to take a number of prescribed subjects in the department which he chooses as his major.

In the descriptions of the courses offered by each department will be found a diagram showing the sequence of the required courses within that department. In addition to the core and the departmental subjects for the A.B. degree, the student must select a minor of twelve to twenty-four hours outside his major department. In addition to these three types of courses there are free electives.

The lists of subjects required by the several departments may be found on the pages indicated below:

Art .....	60	History and Political Science.....	137
Athletics and Men's Physical .....		Home Economics.....	144
Education .....	67	Industrial Education.....	151
Biology .....	72	Library Science.....	157
Chemistry .....	78	Mathematics .....	160
Commercial Education.....	85	Music .....	164
Education (all divisions).....	97	Physical Education and Athletics	
Educational Psychology.....	111	for Women.....	170
English and Literature.....	119	Physics .....	178
Foreign Languages.....	126	Sociology, Anthropology and Eco-	
Geology, Physiography, and		nomics .....	181
Geography .....	132		

COURSE OF STUDY

ART

FIRST YEAR  
Sec. B

Sec. A

Sec. C

Fall	Art 3 Art 3a Civ'l. 1 Ed. 1 Phys. Ed. Sci. 1	Art 1 Art 3a Eng. 4 Hyg. 1 Mus. 25 Phys. Ed.	Art 3a Civ'l. 1 Ed. 1 Eng. 0 Phys. Ed.	Fall	
	Art 1 Art 4 Art 16 Mus. 25 Phys. Ed. Sci. 2	Art 3 Art 4 Civ'l. 1 Phys. Ed. Sci. 1	Art 3 Art 4 Eng. 4 Hyg. 1 Phys. Ed.		Winter
	Art 17 Hyg. 1 Observ. 1 Phys. Ed. Psych. 2a	Art 16 Art 17 Ed. 1 Phys. Ed. Sci. 2	Art 1 Art 16 Art 17 Mus. 25 Phys. Ed. Sci. 1		

SECOND YEAR  
Sec. B

Sec. A

Sec. C

Fall	Art 5 Art 10 Phys. Ed. Psych. 2b Teaching 1	Art 5 Art 10 Observ. 1 Phys. Ed. Psych. 2a	Art 10 Ed. 10 Eng. 21 Phys. Ed. Sci. 2	Fall	
	Art 11 Art 12 Ed. 10 Eng. 21 Phys. Ed.	Art 11 Art 12 Phys. Ed. Psych. 2b Teaching 1	Art 11 Eng. 22 Observ. 1 Phys. Ed. Psych. 2a		Winter
	Art 4a Elective or Minor Eng. 22 Hist. 125 Phys. Ed.	Art 4a Ed. 10 Elective or Minor Eng. 21 Phys. Ed.	Art 4a Elective or Minor Phys. Ed. Psych. 2b Teaching 1		

THIRD YEAR  
Sec. B

Sec. A

Sec. C

Fall	Art 101 Art 107 Elective or Minor Hist. 126	Art 101 Art 107 Eng. 22 Hist. 125	Art 5 Art 101 Art 107 Ed. 10	Fall	
	Art 109 Elective or Minor Elective or Minor	Art 109 Elective or Minor Elective or Minor Hist. 126	Art 12 Art 109 Elective or Minor Hist. 125		Winter
	Art 106 Art 120 Elective Observation 2	Art 106 Art 120 Elective Minor	Art 106 Art 120 Elective or Minor Hist. 126		

FOURTH YEAR  
Sec. B

Sec. A

Sec. C

Fall	Art 108 Ed. 116 Teaching 2 Elective or Minor	Art 108 Ed. 116 Electives Observation 2	Art 108 Ed. 116 Observation 2 Soc. 105	Fall	
	Elective or Minor Elective or Minor Psych. 104 Soc. 105	Teaching 2 Elective or Minor Elective or Minor Psych. 104	Teaching 2 Elective Minor Psych. 104		Winter
	Art 100 Art 103 Ed. 111 Elective or Minor	Art 100 Art 103 Ed. 111 Soc. 105	Art 100 Art 103 Ed. 111 Elective or Minor		

## ART

This department offers technical art courses, professionalized courses in art education, history and appreciation of the different phases of the world's art.

Technical courses are for improvement in understanding and expression of art structure as it pertains to drawing, composition, color, painting, lettering, and industrial art crafts.

History and appreciation cover the great masters and their works, the relation of art to national life, and ways to think about art which will help to interpret the art of the world.

Professionalized courses in art education have to do with the problems of teaching and supervising art in the schools. These courses deal specifically with learning and teaching expression, appreciation, supervision, organization, and research in art education.

Courses in drawing, lettering, design, art craft and art methods are offered for students from other departments who choose a minor in art.

The aim in this department is to prepare teachers and supervisors for the field of art education, to help teachers of elementary and secondary schools to a better understanding of art in its relation to life and to the general school curriculum, and to lead to a bigger realization of the need for leadership in art among the youth of today.

### A FOUR-YEAR COURSE OF STUDY IN ART

Majors in Art are required to distribute their core subjects according to the diagram on page 59. Their departmental subjects should be distributed according to the diagram in the first two years, but in the junior and senior years more liberty is allowed in making the distribution.

In addition to the core subjects listed on page 58, the following courses are required of majors in the department: Art 3, 3a, 4, 4a, 5, 10, 11, 12, 16, 17, 100, 101, 103, 106, 107, 108, 109, 120.

Courses in interior decoration, dress appreciation, bookbinding, art metal, printing, mechanical drawing, physics of color, slide-making, English composition, or music are suggested as valuable units in the equipment of an art teacher.

The arrangement in the diagram requires eighty hours of core subjects, seventy hours of art, and forty-eight hours for minors and free electives—total 198 hours.

#### 1. ART APPRECIATION—Every quarter. Two hours.

The purpose of this course is to help students to successfully solve art problems which they will encounter in daily activities, to develop ability to see beauty and art quality wherever they may be found, to recognize the value of art as an educational, cultural, and social force, to encourage interest in that which is beautiful and inspiring in the world's art.

An introduction to the elements and fundamental principles of the space arts; how to recognize and understand these principles at work in producing simple harmonies. Study illustrations of rhythm, balance and proportion in art objects such as sculpture, painting, architecture, clothing and furnishings; simple facts about color and how to use color intelligently; appreciation of color as a source of enjoyment; art in the home; knowledge of good spacing, color and value relations in making the home and the community more attractive and satisfying; study of various rooms with regard to finish, furnishing, and arrangement; recognition of art quality in windows, doors, draperies, curtains, rugs, accessories of artistic value, lighting fixtures, lamp shades, pottery, china, silver, flower arrangement; how to select frame and hang pictures; architecture of the home, the yard and gardens.

#### 2. FINE ART METHODS FOR KINDERGARTEN-PRIMARY—Every quarter. Four hours.

The purposes of the course are: (a) to present the aims and purposes of the teaching of fine art in the elementary school; (b) to develop the



essentials of creative art expression as adapted to fine art problems for kindergarten and the first four grades; (c) by means of exercises, reading, and discussion bring the student into contact with mediums and forms of expression suitable for these grades; (d) to formulate standards of art appreciation as they relate to the small child; (e) to plan organization of fine art problems for kindergarten and lower grades.

Topics include the child's native equipment and interests as they relate to the teaching of fine art, fine art structure, free brush drawing, painting, vocabulary of symbolic forms, developing the creative impulse, the fine art project, the lesson in art appreciation, color design, lettering.

## 2a. FINE ART METHODS FOR INTERMEDIATE GRADES AND JUNIOR HIGH SCHOOL—Every quarter. Four hours.

The purpose of the course is to present the methods of teaching fine arts and the subject matter handled in the intermediate grades and junior high school.

The content includes practice in art expression, in organization of subject content, and in lesson planning. The subjects considered are freehand drawing, perspective, composition, color, design, art appreciation, art in costume, in the home and community life. Mediums used are pencil, charcoal, water color, crayons, cut paper, print block.

## ART 3. FREEHAND DRAWING I—Fall, winter, and summer quarters. Four hours.

The purpose is to develop the student's power in graphic expression. The content includes orientation, why we draw, aims and objectives, analysis of problem of form, analysis of modes of representation, differing conventions and consistent viewpoints, principles of art structure, approach through composition, which shall motivate technical study in eye and hand coordination; plan and procedure in drawing, importance of vision, seeing significantly, seeing relatively, proportion, eye-measurements and judgments; essentials of perspective, constructive drawing, expressive drawing, technical qualities, variety of mediums, drawing from still life arrangements, from life model, student poses, outdoor sketching, and creative compositions.

## 3a. ART STRUCTURE I—Fall quarter. Four hours.

All students beginning the study of art should take this course. It is the introduction to the study of elements and basic principles in art structure, and it aims to give the student a working basis for interpretation and expression of fine arts. It includes creative problems in line and space, line problems converted to pattern of dark-light and color, drawing of many views of an object combined into a single design, study of rhythm; composition of the rhythm of movement of things, analysis of the three qualities of color—hue, value, chroma; problems illustrating variations of color qualities.

## 4. DESIGN—Winter, spring, and summer quarters. Four hours.

Prerequisites 3, 3a.

The purposes of this course are (a) to give the student an appreciation of design throughout the field of the plastic arts; (b) to develop an understanding of the principles of order underlying good design, and the ability to apply them in the student's own creative work. It aims to approach creative design through native sensibility to esthetic stimuli. An analysis of the elements of art structure and design principles emphasizing the rational basis for aesthetics of line, mass, and color is studied, special attention being given to an understanding of color relationship in design. Problems in constructive design and designs for specific fine arts objects are studied.

## 4a. TEXTILE DESIGN AND PROCESSES—Spring and summer quarters. Four hours.

Art structure as the basis of fine pattern is presented through the study of fine historic woven and printed textiles. Such typical designs as Coptic, Byzantine, Persian, Italian, Spanish, and French are analyzed through photographs and reproductions. Practice in designing textiles is given. Experience in textile processes such as stitchery, tie dyeing, free brush, batik, and block printing.

## 5. WATER COLOR PAINTING—Every quarter. Four hours.

Prerequisite Art 3.

This course aims to give the student a technical command of the medium, to develop individual expression in creative painting.

The content consists of study of limitations and resources of water color as a medium for artistic expression, study of materials, pigments, brushes, papers. Representation of form, color theory, tone relations, study

of different modes of painting in water color: pure water color, line and flat tone, wash and outline, charcoal and water color; pen and wash drawing; study of old and modern masters of water color; creative compositions; outdoor painting, still life, and sketching from costumed model.

#### 10. FINE ARTS METHODS—Fall quarter. Four hours.

For Art majors.

The purposes are, (a) to make the student familiar with the art needs of the elementary and high school student; (b) to make him acquainted with the subject matter related to the teaching of fine art; (c) to present methods of teaching; (d) to discuss organization and adaptation of art subject matter for the child mind.

The topics covered are: Objectives in the teaching of fine art, relating fine art subject matter to the needs of the child, psychological sequence in the development of art problems, practice in drawing and painting for expression, symbolic drawing, perspective, drawing from nature and from life, lettering, design, illustration.

#### 11. INDUSTRIAL ART METHODS—Winter quarter. Four hours.

A course for art majors that presents the industrial needs of the child from the first grade through junior high. Methods of teaching and organization of work into units or projects are presented.

The content includes problems in basketry, clay modeling, mold making, papier-mache, paper construction, bookmaking, toys, puppets, textile study and decoration, weaving, costume, and the interior. These are organized under such uses of products as food, clothing, shelter, records, utensils, tools and machines.

#### 12. COLOR THEORY AND COMPOSITION—Winter and summer quarters. Four hours.

Prerequisite Art 4b.

The purpose of the course is to make an extensive study of the field of color as one of the major elements in plastic expression. The content includes physical aspect of color, Munsell's measurements, the color sphere as an aid to thinking in terms of color, color composition, design principles underlying, major schemes for hue combination, complementary colors, analogous hues and complements, split complements, saturated scale experiments, color sequences, experiments in related harmonies, experiments within one of the major schemes, color notation, the color score card, transposition.

#### 13. INDUSTRIAL ARTS METHODS FOR KINDERGARTEN PRIMARY—Winter quarter. Four hours.

The purposes of the course are: (1) to present the aims and functions of the teaching of industrial art in the elementary school; (2) to develop simple industrial art processes adaptable for use in kindergarten and the primary grades; (3) by means of practice and discussion make the student familiar with types of materials, their uses, preparation and sources; (4) to discuss the organization and method of presentation of the study of industrial art in relation to the needs of the primary school child.

An introduction to child interests, growth and development of the teaching process by means of materials, organization of industrial art problems in the elementary school, relation between industrial art and fine art, development of problems and projects.

#### 14. INDUSTRIAL ARTS METHODS FOR INTERMEDIATE GRADES AND JUNIOR HIGH SCHOOL—(Not given 1929-30.) Winter quarter. Four hours.

A study of art in the industries with relation to the life of the individual and the community.

The content includes practice in design and color in industrial expression. Methods of teaching are presented with such subject matter as clothing, shelter, utensils, and records. Problems in basketry, clay modeling, textiles, costume, the interior, papier-mache, toys and puppets, and paper construction are executed.

#### 16. FREEHAND DRAWING II—Winter, spring, and summer quarters. Four hours.

Prerequisite Art 3 or equivalent.

The purpose of this course is to develop power in freehand drawing and in the use of compositional principles; to improve the appreciation of line quality, of value and tone relations.

Problems studied will be: (1) building tones to express characteristic texture of things drawn, such as plastered wall, wood, drapery, glass, fur, roofs, trees, clouds; (2) the meaning of line direction in compositional

structure—line quality, contour drawing from museum specimens; (3) contrast the movement of line and tone in two-dimensional design with that of three-dimensional composition; (4) recognition of plastic form, and how to attain it through equilibration of forces contrasting straight and curve, long and short, dynamic and calm, modulation of dark and light. Subjects: Roofs, street scenes, interiors, animals, birds, still life, landscape, clouds, slices from life including the figure. Charcoal and pencil are the media used.

**17. LETTERING I—Fall, spring, and summer quarters. Four hours.**

Objectives of the course are: (1) to give students the ability to design and execute fine lettering; (2) to increase the student's appreciation of the beauty of letters in form and arrangement.

The content covers pen-formed letters, work in various styles of lettering pens, simple letter form, spacing, design, manuscript writing, the uncial and half-uncial alphabets, historic development of lettering, the built-up letters, the classic Roman capitals, variants. Special attention is given to creating expressive letter forms for specific purposes. Composition. Specific problems. Study of poster, formal and informal.

**100. SUPERVISION OF ART EDUCATION—Spring and summer quarters. Four hours.**

The teaching and supervising of art in the schools. Methods of supervision, organization of objectives and course content for elementary and secondary schools. Analysis of subject matter, revision of old material and organization of new projects. Study of courses and textbooks now in use in the field of art education.

**101. FIGURE DRAWING—Fall quarter. Four hours.**

The objectives: (a) to gain a knowledge of the human figure in its relation to artistic expression, (b) to develop the ability to use the human figure creatively in original designs and compositions, (c) to develop the ability to draw the figure without model in any expressive action desired, (d) increased power in drawing.

The content includes a study of the figure as a whole, proportion; essentials of artistic anatomy; the bony structure, the important musculature and its effect on the essential form; a study of the figure in action; a study of pose and gesture; the expressive qualities of the figure; rhythm; drawing from life model and from memory; constructive drawing; expressive drawing; outside problems involving use of human figure in design and composition.

This work may be continued for four additional hours as Art 101a.

**103. ART STRUCTURE II—Spring and summer quarters. Four hours.**

The purpose of the course is to develop the student's creative ability in original composition.

The content includes analysis of art structure involved in the great works of art, the synthesis of these elements in the student's own creative work, theory of composition, design principles, expressive arrangement, line, the aesthetics of line, its expressive possibilities; rhythm in its relation to line, line plans of the old masters; mass, the music of dark and light abstractly considered; the dark and light patterns of the master painters, aesthetics of dark and light, design principles involved in mass arrangements, color in composition a distinct means, the expressive function of color, color an emotional experience, aesthetic content; the grammar of color, some harmonic principles, the close analogy with the musical composer's problem, art structure analyzed in various art forms, varied yet consistent viewpoints, dynamic symmetry a specific formula for adjustment of areas and structurally related lines. Assigned problems in composition.

This work may be continued for four additional hours as Art 103b.

**103a. ART STRUCTURE—Fall quarter. On request. Four hours.**

For description of course see Art 3a.

Senior college students will be required to do advanced problems in addition to the work outlined for 3a.

**104. DESIGN—Winter quarter. Four hours.**

For description of course see Art 4.

Senior college students will be required to do advanced problems in addition to the work outlined for students of Art 4.

**104a. DESIGN IN TEXTILES—Spring and summer quarters. Four hours.**

For description of course see Art 4a.

Senior college students will be required to do advanced problems in addition to the work outlined for students in 4a.

**105. WATER COLOR PAINTING—Fall and summer quarters. Four hours.**

The purpose of the course is to give the student a technical command of the medium, to develop individual expression in creative painting.

The content consists of study of limitations and resources of water color as a medium for artistic expression, study of materials, pigments, brushes, papers, representation of form, color theory, tone relations, study of different modes of painting in water color; pure water color, line and flat tone, wash and outline, charcoal and water color; pen and wash drawing; study of old and modern masters of water color; creative compositions; outdoor painting, still life, and sketching from the costumed model.

This work may be continued for four additional hours as Art 105a.

**106. TEACHING ART APPRECIATION—Spring quarter. Two hours.**

The purpose is to present definitely organized lesson plans and course units for the teaching of art appreciation.

The content includes analysis of paintings, sculpture, architecture, and products of the minor arts with methods of teaching adapted to the different schools; to differentiate the historic, the story, and the art values in subjects considered. The lesson plan.

**107. CONSTRUCTIVE DESIGN—Fall and summer quarters. Four hours.**

Prerequisites 4a, 4 or the equivalent.

The purpose of the course is to develop appreciation of the interest in the different crafts of the world; to study the harmonious relationship between the construction and enrichment of an artistic product; to teach correct use of materials; to stimulate desire for good craftsmanship and create design.

Problems involved are leathercraft, design, construction, tooling, staining of such articles as bags, purses, book covers, desk sets; basketry of pine needles and reed, lamp shades—parchment and batik; Gesso-demonstration of the essentials necessary for using this medium.

Textile design and block printing are elective in this course if the student has previously covered the other subject matter.

All designs and patterns are originated or adapted by the students.

This work may be continued for four additional hours as Art 107a.

**108. POTTERY—Fall quarter. Four hours.**

The historical development of pottery making as a craft is presented with emphasis on standards for judging the art value. Through reference reading, photographs, and models the student is acquainted with the best of Greek, Egyptian, Persian, Italian, Spanish, Chinese, and Indian pottery forms and decoration. Practice is given in modeling by the coil and slab processes such objects as tiles, vases, bowls, and book ends. Experience is obtained in decorating with incised lines, matts and Majolica glazes, and in casting and firing.

This work may be continued for four additional hours as Art 108a.

**109. HISTORY OF ART—Winter and summer quarters. Four hours.**

The purposes of this course are: (1) to give a background of knowledge of the world's art and its development from the beginning of history, (2) to increase the student's appreciation and understanding of the different kinds of art.

The content of the course includes growth of the great schools and their influences; study of important masters and their work as an index to the time in which they lived; study of the crafts and minor arts in relation to the progress of civilization.

**112. COLOR THEORY AND COMPOSITION—Winter quarter. Four hours.**

For description of course see Art 11. Senior college students will be required to do advanced problems in addition to the work outlined for Art 12.

**116. FREEHAND DRAWING III—Winter and summer quarters. Four hours.**

For description of course see Art 16. Senior college students will be required to do the advanced problems in addition to the work outlined in Art 16.

This work may be continued for four additional hours as Art 116a.

**117. LETTERING II—Fall, spring and summer quarters. Four hours.**

For description of course see Art 17. Senior college students will be required to do advanced problems in addition to the work outlined for Art 17.

**118. STAGECRAFT AND PAGEENTRY—Winter and summer quarters. Four hours.**

The objectives are: (1) to study the art of the theatre from the viewpoint of the art director, (2) to give students practical experience in working out the art problems involved in amateur productions.

The content includes theory, historic development, the modern trend, the genesis of a distinct art form, composition, modern color and lighting, instruction and practice in fundamentals of scenic construction and production, designing and making of properties, masks and lanterns, essentials of figure and general drawing, costume, a study of current productions.

**119. ADVANCED POSTER COMPOSITION—Winter and summer quarters. Four hours.**

Prerequisite, Art 17.

The purpose of the course is to afford to qualified students an opportunity to do advanced work in poster design and lettering.

The content covers advanced problems in design and lettering, design in its relation to advertising art, processes of reproduction.

**120. OIL PAINTING—Winter and spring quarters. Four hours.**

Prerequisites, Art 3, 16.

The purposes are: (1) to ground students in the fundamentals of good painting; (2) to develop the student's individual power of expression in this medium, (3) to give the student a vital interest in creative art through power gained in the use of the oil medium, (4) to acquaint the student with viewpoints of the different schools of painting.

The content includes materials and technical employment, painting from still life, emphasis placed on composition; pigments, pigment range vs. light range; representation of form as revealed through light, technical study in vision and employment of palette, seeing significantly, expressing the individual viewpoint, imaginative composition, painting from costumed model and from nature out of doors.

This work may be continued for four additional hours as Art 120a.

**121. MODELING—Winter and summer quarters. On request. Four hours.**

The purpose of the course is to broaden the student's conception of form in the third dimension, to develop his perception and appreciation of organization in nature, to develop a certain technical mastery and power of expression in this medium.

The content includes basic elements and principles in form structure, figures and animals from life, creative compositions suggested by observation of figures and animals in every day life.

**220. ADVANCED OIL PAINTING—Given on request.**

**223. RESEARCH IN ART EDUCATION—Every quarter. Four hours.**

Taken in the first quarter of graduate work.

This is a required seminar and conference course for graduate students who are working on their masters' investigations. The director of educational research meets the group three times each week and confers with the individual students in the research office. Small group conferences are held when needed. Each student meets his thesis adviser regularly.

**224. RESEARCH IN ART EDUCATION—Every quarter. Four hours.**

This course is intended primarily for graduate students working on their masters' theses. Subjects for research and methods of organization will be considered in weekly conference with the head of the department.

**225. RESEARCH IN ART EDUCATION—Every quarter. Two hours.**

A continuation of Art 224.

ATHLETICS

FIRST YEAR			
	Sec. A	Sec. B	Sec. C
Fall	Ath. 40 Ath. 44 Civ'l. 1 Ed. 1 Elective Sci. 1	Art 1 Ath. 40 Ath. 44 Elective Eng. 4 Hyg. 1 Mus. 25	Ath. 40 Ath. 44 Civ'l. 1 Ed. 1 Elective Eng. 0
Winter	Ath. 3 Ath. 73 Hyg. 1 Mus. 25 Sci. 1 Second Major	Ath. 43 Ath. 50 Civ'l. 1 Sci. 1 Second Major	Ath. 3 Ath. 73 Eng. 4 Hyg. 1 Second Major
Spring	Ath. 37 Ath. 74 Hyg. 1 Observ. 1 Psych. 2a	Ath. 52 Ath. 60 Ath. 75 Ed. 1 Sci. 2 Second Major	Art 1 Ath. 37 Ath. 74 Mus. 25 Sci. 1 Second Major
SECOND YEAR			
	Sec. A	Sec. B	Sec. C
Fall	Ath. 52 Ath. 67 Ath. 72 Psych. 2b Second Major Teaching 1	Ath. 52 Ath. 67 Ath. 72 Observ. 1 Psych. 2a Second Major	Ath. 52 Ath. 67 Ath. 72 Ed. 10 Eng. 21 Sci. 2
Winter	Ath. 50 Ath. 53 Ath. 70 Ed. 10 Eng. 21 Second Major	Ath. 3 Ath. 73 Psych. 2b Second Major Teaching 1	Ath. 50 Ath. 53 Ath. 70 Eng. 22 Observ. 1 Psych. 2a Second Major
Spring	Ath. 52 Ath. 60 Ath. 75 Eng. 22 Hist. 125 Second Major	Ath. 37 Ath. 74 Ed. 10 Eng. 21 Second Major	Ath. 52 Ath. 60 Ath. 75 Psych. 2b Second Major Teaching 1
THIRD YEAR			
	Sec. A	Sec. B	Sec. C
Fall	Ath. 165 Ath. 180 Elective Hist. 126 P. E. 122	Ath. 165 Ath. 180 Eng. 22 Hist. 125 F. E. 120	Ath. 165 Ath. 180 Ed. 10 Elective P. E. 120
Winter	Ath. 122 Biot. 101 Elective P. E. 121 Second Major	Ath. 122 Biot. 101 Elective Hist. 126 P. E. 121	Ath. 122 Biot. 101 Elective Hist. 125 P. E. 121
Spring	Ath. 168 Elective Eng. 100 Observ. 2 Second Major	Ath. 168 Ath. 170 Eng. 100 Second Major	Ath. 168 Elective Eng. 100 Hist. 126 Second Major
FOURTH YEAR			
	Sec. A	Sec. B	Sec. C
Fall	Ath. 171 Ath. 172 P. E. 120 Soc. 105 Teaching 2	Ath. 171 Ath. 172 Elective Observ. 2 P. E. 122 Psych. 105	Ath. 171 Ath. 172 Elective F. E. 122 Second Major
Winter	Ath. 166 Ed. 116 Elective Second Major	Ath. 166 Ed. 116 Elective Soc. 105 Teaching 2	Ath. 166 Ed. 116 Elective Observ. 2 Psych. 105
Spring	Ath. 169 Ath. 170 Ed. 111 Elective Psych. 105	Ath. 169 Ed. 111	Ath. 169 Ath. 170 Ed. 111 Soc. 105 Teaching 2

## ATHLETICS AND PHYSICAL EDUCATION FOR MEN

An activity course in physical education is required of all first and second year students throughout the college year. A total of six credits must be earned.

At the beginning of each college year each student is given a thorough physical examination by the College physician. The condition and health of the student as shown by this examination are used in outlining the exercises and development work given.

All the candidates for the various athletic teams must first obtain a permit from the college physician before having any equipment checked out to him.

All requests for exemption or postponement must be made at the office of the Director of Physical Education, and to become effective they must be approved by him and by the class adviser of the student's department. They will be granted ONLY in the following cases:

1. Students physically unfit to take part
2. Students providing satisfactory evidence of previous completion of this work
3. Other cases deemed advisable by the Director of Physical Education and approved by the head of the department in which the student is enrolled

The objectives of this department are concerned with:

The satisfaction of student interest in games, sports, contests, and sportsmanship; in physical development and vigor; and in the achievement of athletic skills;

The formation of habits that improve, maintain, and defend health; habits of exercise, recreation, and athletic competition with their evolutions of individual and group hygiene; habits of periodic health examinations and of discriminating selection of health advisers, health literature, and health service;

The production of an understanding of the basic facts that determine mental and physical health and the applications of those facts for the benefit of the individual, his group, and society;

A capitalization of the character disciplines and of the training of social personality that may be furnished by experience in organized games and college athletics;

The training of the student leaders and the preparation of men for professional service in the field of educational hygiene and physical education;

The provision of programs of physical education and hygiene adapted to the needs of the individual student, whatever his limitations may be.

### A FOUR-YEAR COURSE OF STUDY IN ATHLETICS

All men doing major work in this department are required to do a second major in some other department, in order that they may be prepared to teach some subject along with physical education and athletics.

Majors in Athletics are required to distribute their core subjects according to the diagram on page 66. Their departmental subjects should be distributed according to the diagram in the first two years, but in the junior and senior years more liberty is allowed in making the distribution.

In addition to the core subjects listed on page 58, the following athletic courses are required of majors in this department: Ath. 3, 37, 40, 43, 44, 50, 52, 53, 60, 67, 70, 72, 73, 74, 75, 122; 165, 166, 168, 169, 170, 171, 172, 180.

## THEORY COURSES IN HEALTH EDUCATION FOR MAJORS

**Hyg. 1. INDIVIDUAL AND SOCIAL HYGIENE (for men)**—Every quarter. Four hours.

A first year course covering the essentials of personal and community hygiene. The course aims to secure better personal health habits; gives an outline of some of the broader fundamental aspects of public or social hygiene; and indicates some of the aims and methods of teaching hygiene in the public schools. Required of all men during the first year's work.

**3. FIRST AID**—Winter quarter. Two periods. Two hours.

A study of the causes of accidents and type injuries: what the first-aid should do in case of fracture, dislocation of joints, hemorrhage, poisoning, electric shock, asphyxiation, etc. The American Red Cross text is followed. Required of all majors, but open to all.

**P. E. 120. APPLIED ANATOMY**—Fall quarter. Four hours.

See page —

**P. E. 121. KINESIOLOGY**—Winter quarter. Two hours.

See page —

**P. E. 122. APPLIED PHYSIOLOGY**—Fall quarter. Four hours.

See page —

**122. PHYSIOLOGY OF EXERCISE**—Winter quarter. Four periods. Four hours.

Prerequisite, Ath. 2.

This course is designed to give students an insight into the effects of muscular activity upon the various organs and systems of the body, and upon the human mechanism as a whole, in order that they may more intelligently direct the physical training and athletic activities of their pupils when teaching physical education.

## ACTIVITY COURSES

All first and second year students are required to take one active course in physical education each quarter in residence.

**30. SPEED BALL**—Fall quarter. Three periods. One hour.

Technic and rules of the game, which is a combination of soccer and basketball.

**31. TOUCHBALL**—Fall quarter. Three periods. One hour.

A mild form of Rugby football. Open to all men students.

**32. HANDBALL**—Fall, winter, and spring quarters. Three periods. One hour.

A recreational game for all men students.

**33. VOLLEYBALL**—Winter quarter. Three periods. One hour.

A recreational game for all men students.

**36. TENNIS (Rec.)**—Fall and spring quarters. Three periods. One hour.

A recreational course for all men students.

**37. PLAYGROUND BASEBALL**—Spring quarter. Three periods. One hour.

A recreational game for all men students.

**40. ELEMENTARY SWIMMING**—Every quarter. Three periods. One hour.

A course for the beginner in swimming.

**43. CUBS' BASKET BALL**—Winter quarter. One hour.

**44. FRESHMAN FOOTBALL**—Fall quarter. One hour.

Competition with other Rocky Mountain Conference freshman teams. All men who plan to be candidates for the varsity are urged to take this course in their freshman year.



50. CALISTHENICS—Winter quarter. Three periods. One hour.

Setting-up exercises; marching tactics. Personal proficiency and correctness of form; progressive programs of exercises and their value and adaptation; and methods of instruction.

51. GYMNASTICS—Fall quarter. Three periods. One hour.

Exercises on horizontal bar; parallel bars; horse; rings.

52. MAT WORK—Every quarter. Three periods. One hour.

Tumbling and elementary mat work.

53. ADVANCED MAT WORK—Winter quarter. Three periods. One hour.

BOXING—Winter quarter. Three periods. One hour.

Fundamentals for class and individual work.

55. WRESTLING, ELEMENTARY—Winter quarter. Three periods. One hour.

Fundamentals and personal proficiency.

57. CORRECTIVE GYMNASTICS—Every quarter. Three periods. One hour.

Exercises which aid in the correction of abnormalities, and which are suited to individuals having deformities. Necessity of thorough and expert physical examination and adapted programs of exercise.

60. PLAYS AND GAMES—Spring quarter. Three periods. One hour.

An assortment of plays and games suitable for the playground and gymnasium.

67. MASS ATHLETICS—Winter and spring quarters. One hour.

An assortment of group games suitable for all the men students who are unable to take part in college Sports.

68. CROSS COUNTRY—Fall quarter. Three periods. One hour.

The men in this course are trained for a cross-country run of three miles; this event is then held on Homecoming Day.

#### Varsity Sport:

70 to 80

70. SWIMMING—Every quarter. Daily. One hour.

71. GYM—Winter quarter. Daily. One hour.

72. FOOTBALL—Fall quarter. Daily. One hour.

73. BASKETBALL—Winter quarter. Daily. One hour.

74. BASEBALL—Spring quarter. Daily. One hour.

75. TRACK—Spring quarter. Daily. One hour.

76. TENNIS—Spring quarter. Daily. One hour.

77. WRESTLING—Winter quarter. Daily. One hour.

#### Theory Courses in Coaching

165. FOOTBALL COACHING—Fall and summer quarters. Two periods. Two hours.

Prerequisite, football experience.

A discussion of equipment, mechanical devices for training men, and field equipment. Theory of offensive play and play structure. Theory of defense and structure of defensive formations; drawing up of schedules.

166. BASKETBALL COACHING—Winter and summer quarters. Two periods. Two hours.

Prerequisite, basketball experience as player or coach.

Theory of coaching the various styles of both offense and defense as used by the outstanding coaches of the country; methods of goal-throwing, signals from tip-off and for out-of-bounds plays; value and use of the pivot, and the other fundamentals.

168. TRACK COACHING—Spring and summer quarters. Two periods. Two hours.

Theory and practice in starting, sprinting, distance running, hurdling, jumping, vaulting, throwing the weights and the javelin; also training and conditioning men, the management of meets, and the rules for the various events.

169. BASEBALL COACHING—Spring and summer quarters. Two periods. Two hours.

Discussion of the best methods in batting, fielding, base-running, pitching, and team play in general. Attention is given to teaching the fundamentals and gaining a knowledge of "inside baseball"; also a study of the rules.

170. ORGANIZATION AND ADMINISTRATION OF ATHLETICS AND PHYSICAL EDUCATION—Spring quarter. Two periods. Two hours.

Organization problems and methods; ideal programs for a Department of Physical Education and Athletics; the relation this department bears to the other departments of the school; and the relation of the various branches of the department to each other.

171. PSYCHOLOGY OF ATHLETICS—Fall quarter. Two periods. Two hours.

The application of psychological laws and principles to all forms of athletic competition.

172. OFFICIATING AND MANAGEMENT—Fall quarter. Two periods. Two hours.

Analysis and interpretation of rules from the official's standpoint. Practice in the recognition of faulty play and the assignment of the corresponding penalties. Also a study of the best methods to use in staging contests.

180. ATHLETIC TRAINING AND DIAGNOSIS—Fall quarter. Two periods. Two hours.

This course aims to aid the prospective coach in gaining a knowledge of emergency treatment, and to be able to properly diagnose the common injuries. Also to furnish theory training for the various sports. A study of simple massage and treatment of sprains and bruises.



## BIOLOGY

The first aim of the department is to prepare teachers of biological subjects for the public schools of the state. It also endeavors to provide such training in the general principles of biology as will give students an adequate background for other professional courses, and prepare them for the common activities of life.

No one can be a safe leader in educational theory and practice who does not have some conception of the place the study of nature should have in the normal development of the child; who does not realize the large application of the principle of organic evolution to educational procedure, and who fails to appreciate the power of heredity in determining the natural capacities and abilities of the pupil.

The courses in botany and zoology are planned to combine laboratory and field work with classroom study wherever this is possible and desirable. For it is only through this procedure that students gain both a scientific knowledge and a large appreciation of life forms.

### A FOUR-YEAR COURSE OF STUDY IN BIOLOGY

Majors in Biology are required to distribute their core subjects according to the diagram on page 71. Their departmental subjects should be distributed according to the diagram in the first two years, but in the junior and senior years more liberty is allowed in making the distribution.

In addition to the core subjects listed on page 58, the following biology courses are required of majors in this department: Bot. 1, 2, 3, 102, 103, Zool. 1, 2, 4, 103, 107, Bact. 100, Biotics 100, 101, Biol. 102.

Biology majors are required to elect two minors of twelve-twenty-four hours each. In the selection of minors the following suggestions may be helpful. Most frequent demands are made for those who can teach some combination of biology, chemistry, physics, or mathematics. Occasional calls are made for a combination of science with other fields such as educational administration or physical education. All men students majoring in biology should elect some field of athletics since many of the men students are asked to coach some branch of major athletics.

The suggested arrangement as found in the program requires sixty-eight hours of core subjects, fifty-eight hours of departmental requireds, a twelve hour minor in chemistry, a twelve hour minor in physics. In order to be well fitted to meet conditions in high school biology teaching, the student should elect courses in radio, astronomy, and geology.

### BIOLOGY

101. **BIOLOGY SEMINAR**—Every quarter. Two hours.

For biology majors.

102. **TEACHING OF BIOLOGY**—Spring quarter. Four hours.

Fee, \$1.00. Prerequisites, Botany 1, 2, and 3; Zoology 1, 2, and 3.

A consideration of the science movement in secondary schools and why it has failed to produce the expected educational results. A study is made of the fundamental laws of thinking as applied to science teaching. Opportunity will be given for examination of the research literature in the field of science instruction. Materials, texts, and reference books are considered and a suggested course in high school biology is compiled. Methods of instruction are treated, together with the laboratory equipment and supplies.

201. **BIOLOGY SEMINAR**. Every quarter. Two hours.

For graduate biology majors.

**223. RESEARCH IN BIOLOGY—Every quarter. Four hours.**

Taken in the first quarter of graduate work.

This is a required seminar and conference course for graduate students who are working on their masters' investigations. The director of educational research meets the group three times each week and confers with individual students in the research office. Small group conferences are held when needed. Each student meets his thesis adviser regularly.

**224. BIOLOGICAL RESEARCH—Every quarter. Four hours.**

An individual research course in connection with the graduate thesis. This is a conference course designed to guide students in the selection of problems, method of procedure in the solution of them, and the interpretation of results. Students should register for this course only after consultation with the head of the department.

**225. BIOLOGICAL RESEARCH—Every quarter. Two hours.**

A continuation of Biological Research 224.

**BOTANY****1. GENERAL BOTANY—Fall quarter. Four hours.**

Fee, \$1.00. Three hours laboratory.

This is an elementary study of the structure and function of flowering plants and their relation to man. Students who can elect but one botany course for its cultural value are advised to take this one. The course includes a study of the structure, character, and functions of roots; the structure and functions of stems and their industrial applications, such as the color of woods and grain in lumber; the nature and functions of leaves; the structure of flowers and fruits and their relation to mankind. The whole aim of this course is to give students not only a scientific knowledge of the structure and function of our common plants, but also an appreciation of the large place which they hold in serving man and beautifying the earth.

**2. GENERAL BOTANY—Winter and summer quarters. Four hours.**

Fee, \$1.00. Three hours laboratory.

This course includes a study of the Thallophytes and the Bryophytes. The blue green algae, the green algae, the brown algae, and the red algae are studied. Local forms are used when available. Field collections of material are made and cultures grown either in the laboratory or greenhouse. In the fungal group bread molds, yeasts, rusts, smuts, mushrooms, and puffballs, and other forms, are considered. Type forms of liverworts and mosses are studied. Constant emphasis is placed upon the relation of the Thallophytes and the Bryophytes to man.

**3. GENERAL BOTANY—Spring quarter. Four hours.**

Fee, \$1.00. Three hours laboratory.

A study of ferns, cycads, conifers, and flowering plants. The first part of the course is designed to acquaint the student with these different groups of plants as to their structures, functions, and economic relations. As soon as the weather will permit, a large part of the work is done in the field where the student is taught how to identify plants. The purpose of this is to prepare the student to become acquainted with the flowers and plants in the region where he may be teaching.

**101. SYSTEMATIC BOTANY—Summer quarter. Four hours.**

Fee, \$1.00. Three hours laboratory.

This course is carried on in the laboratory and field. Its purpose is to give the student a knowledge of the characteristics and relations of the different flowering plants. It enables the student to use the botanical manual with ease and to classify plants with considerable facility. It is especially helpful to teachers of nature study and biology who wish to become better acquainted with types of plants in any community.

**102. BOTANICAL TECHNIC AND HISTOLOGY—Fall quarter. (Not given in 1929.) Four hours.**

Fee, \$1.50. Three hours laboratory. Prerequisite, Botany 1.

A course in which the science of killing, staining, and making of botanical material into permanent slides is combined with the study of plant tissues. The tissues are studied as to origin, differentiation, and organization. Instruction in freehand methods is followed by a study of the paraffin method of preparation of sections. Some methods of preserving unmounted botanical materials are also considered.

**103. PLANT PHYSIOLOGY—Winter quarter. Four hours.**

Fee, \$1.50. Three hours laboratory. Prerequisite, Botany 1.

The purpose of this course is to give the student a working knowledge of such physiological activities as absorption, translocation, photosynthesis,

digestion, respiration, and transpiration. The experimental method is used largely, and constant emphasis is placed upon the economic relations of these plant processes. When feasible the student is encouraged to plan and carry out his own experiments. Constant stress is laid upon sources of error and modifying conditions.

**201. TAXONOMY—Summer quarter. Four hours.**

Fee, \$1.00. Three hours laboratory. Desirable prerequisites, Botany 2 and 3.

This is a graduate course but is open to all students who have had the prerequisite courses. The purpose of the course is to give the advanced student an understanding of the morphological relations of plants and the principles underlying their classification. The work is carried on largely in the field and results in a rather wide knowledge of local wild plants and flowers. Graduate students are required to work out a special problem in addition to the regular work of the course.

**223. RESEARCH IN BOTANY—Every quarter. Four hours.**

Taken in the first quarter of graduate work. This is a required seminar and conference course for graduate students who are working on their masters' investigations. The director of educational research meets the group three times each week and confers with individual students in the research office. Small group conferences are held when needed. Each student meets his thesis adviser regularly.

**224. BOTANICAL RESEARCH—Every quarter. Four hours.**

Fee, \$3.00.

An individual research course in connection with the graduate thesis. This is a conference course designed to guide students in the selection of problems, method of procedure in the solution of them, and the interpretation of results. Students should register for this course only after consultation with the head of the department.

**225. BOTANICAL RESEARCH—Every quarter. Two hours.**

Fee, \$1.00.

A continuation of Botanical Research 224.

### BIOTICS

**100. PRINCIPLES OF BIOTICS—Fall and summer quarter. Four hours.**

The purpose of this course is to furnish the student with the facts and evidences which point toward gradual development of the universe and living things. A study will be made of the universe; the relation of our own solar system to other solar systems; of the probable development of our solar system; of the method of formation of the earth; of the conditions necessary to support living organisms; of the changes in the earth's surface; and the imprisonment of preexisting forms. Attention will now be turned to the successive development of living organisms and the factors involved in their modification. Some time will be devoted to a discussion of the various theories which attempt to explain, and to those which attempt to refute, the evolutionary idea.

**101. GENETICS AND EUGENICS—Winter and summer quarters. Four hours.**

In the first half of this course the following topics are considered: The physical basis of heredity, the principles of gamete formation, fertilization, and the Mendelian laws; such modifications and extensions of the Mendelian laws, as interacting factors, linkage, crossing over and interference, together with a study of sex inheritance, variation, and the question of the transmission of acquired characters.

In the second half, time is spent in the consideration of the inheritance of natural abilities and capacities, the present eugenic trend of the American people, how to eliminate the defective strains of germ plasm and what measures may be taken to preserve the superior strains. The educational implications of all these problems are constantly emphasized.

**201. GENETICS AND EUGENICS—Winter and summer quarters. Four hours.**

This course is for graduate students. It covers the same ground as course 101, but additional and more advanced work is required.

### ZOOLOGY

**1. GENERAL ZOOLOGY. Fall and summer quarters. Four hours.**

Fee, \$1.00. Three hours laboratory.

This is a beginning course which treats of principles of structure and function, inter-relations of animals, geographical distribution and the origin and development of animal life. The following subjects will be studied: The history of the development of biological thought. The dis-

covery of protoplasm, its structure and function; classification of animals; the single celled organisms; theories of the origin of many-celled animals; the sponges, tapeworms, hydra, jellyfishes and closely related animals; starfishes, basket-stars, sea-urchins, sand dollars, sea cucumber; earthworms; snails, fresh-water mussels, the chambered nautilus, and related forms; insects, crawfish, and the American lobster. Methods of reproduction will be stressed during the study of these forms.

**2. GENERAL ZOOLOGY—Winter quarter. Four hours.**

Fee, \$1.00. Three hours laboratory. A continuation of Zoology 1, and should be preceded by it.

This study will be devoted to the vertebrates and the theories of their origin and development from lower forms. Stress will be laid on comparative structure and function. Time will be given for a discussion of adaptation to environment and of the inter-relations of the vertebrates to a given environment. The course will close with a discussion of geographical distribution, and its effects on animal life.

**3. BIRD STUDY—Spring and summer quarters. Two hours.**

Fee, \$1.00. Field trips arranged.

This course is intended to create interest in living things and to add to appreciation of natural environment. A study will be made of the birds of the vicinity and their relationship to large groups of birds. Means of identification in the field, food relations, seasonal distribution, migrational activities, the importance of protection, and their relation to man, will be emphasized. The course will close with a study of the means of attracting useful birds.

**\*4. ECONOMIC ZOOLOGY—Spring quarter. Four hours.**

A survey of the animal kingdom with special emphasis on their relation to man. A study is made of forms which aid man either directly or indirectly and of those forms which are distinctly a disadvantage. A study will be made of such problems as Texas fever in cattle, Rocky Mountain spotted fever commonly known as tick fever, the parasitic worms and their effect on man and his domestic animals; oyster culture; the manufacture of pearl buttons; some insect pests and their control such as the house fly, the clothes moth, plant lice, and other common insect problems. Attention will now be devoted to a study of the common problems of the backboneed animals: The place of the common toad in the vegetable garden, how to know a poisonous snake, how to treat a snake bite, the value of fish as food, the salmon industry, codfish as food, artificial propagation of fish and how it has been an aid to man. Consideration will be given to the value of birds as insect destroyers and the true relation of the hawks and owls to man; the rabbit, the fox, and the coyote as fur bearers; the value of the deer as meat and how the supply can be increased. Throughout the entire course conservation of wild life will be stressed.

**101. INVERTEBRATE ZOOLOGY—Spring quarter. (Not given 1929-30.) Four hours.**

Fee, \$1.00. Four hours laboratory. Prerequisites, Zoology 1 and 2 or equivalent.

A study of the anatomy, physiology, and life history of a selected series of the invertebrates. This course will provide a more complete series than Zoology 1 and a more detailed study will be made.

**102. VERTEBRATE ZOOLOGY—Spring quarter. (Not given 1929-30.) Four hours.**

Fee, \$1.00. Prerequisites, Zoology 1 and 2 or equivalent.

A much more detailed study of selected types of the vertebrates than can be given in a general course. In addition to assigned readings, lectures and discussions on embryology, anatomy, and physiology of the entire group, the student is required to make careful dissection of a fish, an amphibian, a bird, and a mammal.

**103. ZOOLOGICAL TECHNIC AND ANIMAL HISTOLOGY—Winter quarter. (Not given 1929-30.) Four hours.**

Fee, \$1.50. Three hours laboratory. Prerequisites: Zoology 1 and 2 or equivalent.

A course in which the methods of fixing, staining, and preparing material for class use is combined with the study of the differentiation and organization of animal tissues. The student will have opportunity here to prepare material which will be of value for demonstration in high school teaching.

**107. ELEMENTARY ENTOMOLOGY—Fall quarter. Four hours.**

Fee, \$1.00. Prerequisites: Science 1 and 2 or equivalent.

A study will be made of the more common insects of the region, their classification and life histories. Methods of collecting, mounting, and pre-

\*Given also by extension.

paring insect material for study will be given attention. Students will be given opportunity to prepare a reference collection of the more common species. Field observations will constitute a part of the work. Lectures, discussions, assigned readings, and laboratory.

**201. MORPHOLOGY OF THE VERTEBRATES—Winter quarter. Four hours.**

Fee, \$1.00. Prerequisites, Zoology 1, 2, and 102 or equivalent.

A more detailed study of the systems of organs of the vertebrates from the comparative viewpoint. The student is expected to trace the differentiation of the organs and systems from the simple vertebrates to their complex condition in the mammals. Dissections will be made of amphioxus, the dogfish shark, cryptobranchus, and the cat. Lectures, discussions, library references, and laboratory.

**223. RESEARCH IN ZOOLOGY—Every quarter. Four hours.**

Taken in the first quarter of graduate work.

This is a required seminar and conference course for graduate students who are working on their masters' investigations. The director of educational research meets the group three times each week and confers with individual students in the research office. Small group conferences are held when needed. Each student meets his thesis adviser regularly.

**224. ZOOLOGICAL RESEARCH—Every quarter. Four hours.**

Fee, \$3.00.

Individual research course preliminary to the thesis. Students should register for this course only after consultation with departmental staff.

**225. ZOOLOGICAL RESEARCH—Every quarter. Two hours.**

Fee, \$1.00. Continuation of course Zoological Research 224.

#### BACTERIOLOGY

**100. GENERAL BACTERIOLOGY—Winter and summer quarters. Four hours.**

Fee, \$1.50. Three hours laboratory. Prerequisites: Science 1 and 2, or equivalent.

This course treats of the morphology and classification of bacteria, yeasts, and molds, their effects on food and their relationship to man. Especial emphasis is placed upon the relation of molds and yeasts to foods and cookery, and upon disease producing effects of micro-organisms. A study is made of the bacterial count of milk and water, and methods by which they are contaminated. This course is organized into units. Each unit includes assigned readings, laboratory, and investigational work.

#### ELEMENTARY SCIENCE

**1. ELEMENTARY SCIENCE—Fall, spring, and summer quarters. Four hours.**

Fee, \$1.00. Required of Kindergarten, Primary, and Intermediate majors.

This course involves the study of butterflies, moths, and other insects in relation to man. It includes the study of native and common trees, our most common birds, their habits and their songs. Attention is given to the aims in teaching elementary science, methods of presentation, and ways of collecting, preserving, and using materials. The course is presented in units. Each unit includes assigned readings and field study.

#### GENERAL SCIENCE

**1. GENERAL SCIENCE—Every quarter. Four hours.**

Fee, \$1.50.

This is primarily a professionalized course emphasizing the aims and the methods used in selecting and organizing the subject matter for a general science course. The student will be required to acquaint himself with appropriate textbooks; results of investigations made in the teaching field; and with the details of formulating units for a general science course of study.

**2. GENERAL SCIENCE—Winter quarter. Four hours.**

Fee, \$1.00.

This course is a continuation of General Science 1 and may be elected by students who wish advanced work in this field. It deals primarily with physical phenomena, such as simple problems in electricity, magnetism, geology, meteorology, and astronomy. Laboratory demonstrations and field observations constitute a major part of the work.



CHEMISTRY

FIRST YEAR

	Sec. A	Sec. B	Sec. C	
Fall	Civ'l. 1 Chem. 1 Ed. 1 Phys. Ed. Sci. 1	Art 1 Chem. 1 Eng. 1 Hyg. 1 Mus. 25 Phys. Ed.	Chem. 1 Civ'l. 1 Ed. 1 Eng. 0 Phys. Ed.	Fall
Winter	Art 1 Chem. 2 Mus. 25 Phys. Ed. Sci. 2	Chem. 2 Civ'l. 1 Eng. 4 Phys. Ed. Sci. 1	Chem. 2 Eng. 4 Hyg. 1 Phys. Ed.	Winter
Spring	Chem. 3 Hyg. 1 Observ. 1 Phys. Ed. Psych. 2a	Chem. 3 Ed. 1 Phys. Ed. Sci. 2	Art 1 Chem. 3 Mus. 25 Phys. Ed. Sci. 1	Spring

SECOND YEAR

	Sec. A	Sec. B	Sec. C	
Fall	Chem. 7 Chem. 110 Phys. Ed. Psych. 2b Teaching 1	Chem. 110 Observ. 1 Phys. Ed. Psych. 2a	Chem. 110 Ed. 10 Eng. 21 Phys. Ed. Sci. 2	Fall
Winter	Chem. 7b Chem. 111 Ed. 10 Eng. 21 Phys. Ed.	Chem. 7 Chem. 111 Phys. Ed. Psych. 2b Teaching 1	Chem. 111 Eng. 22 Observ. 1 Phys. Ed. Psych. 2a	Winter
Spring	Chem. 113 Eng. 22 Hist. 125 Phys. Ed.	Chem. 7b Chem. 113 Ed. 10 Eng. 21 Phys. Ed.	Chem. 7 Chem. 113 Phys. Ed. Psych. 2b Teaching 1	Spring

THIRD YEAR

	Sec. A	Sec. B	Sec. C	
Fall	Chem. 114 Electives and Minor Hist. 126	Eng. 22 Electives and Minor Hist. 125	Chem. 7b Chem. 114 Ed. 10 Elective or Minor	Fall
Winter	Chem. 114b Electives and Minor	Chem. 114 Electives and Minor Hist. 126	Chem. 114b Electives and Minor Hist. 125	Winter
Spring	Electives and Minor Observ. 2	Chem. 114b Electives and Minor	Electives and Minor Hist. 126	Spring

FOURTH YEAR

	Sec. A	Sec. B	Sec. C	
Fall	Chem. 115 Electives and Minor Teaching 2	Chem. 115 Electives and Minor Observ. 2	Chem. 115 Electives and Minor Soc. 105	Fall
Winter	Chem. 116 Soc. 105 Electives and Minor	Chem. 116 Electives and Minor Teaching 2	Chem. 116 Electives and Minor Observ. 2	Winter
Spring	Chem. 117 Ed. 111 Electives and Minor	Chem. 117 Ed. 111 Electives and Minor Soc. 105	Chem. 117 Ed. 111 Electives and Minor Teaching 2	Spring

## CHEMISTRY

It is the aim of this department to offer a schedule of courses which will fill the needs of the following students:

1. Students taking Chemistry as a requirement of other departments of the College. Such students will find the Chemistry requirements outlined under their department.
2. Students desiring to specialize in Chemistry in order to enter the teaching profession.
3. Students taking other courses with Chemistry as a minor subject. In cooperation with their faculty advisers, such students will make the desired selection from the program outlined on page—

Minors in Chemistry will usually be chosen from the first courses in their order.

### A FOUR-YEAR COURSE OF STUDY IN CHEMISTRY

Majors in Chemistry are required to distribute their core subjects according to the diagram on page 77. Their departmental subjects should be distributed according to the diagram in the first two years, but in the junior and senior years more liberty is allowed in making the distribution.

In addition to the core subjects listed on page 58, the following chemistry courses are required of majors in this department: Chem. 1, 2, 3, 7, 7b, 110, 111, 113, 114, 114b, 115, 116, 117.

1. GENERAL CHEMISTRY—Fall, winter and summer quarters. Two or four hours.

Four hours for chemistry majors.

Fee, \$1.00 for each quarter hour of laboratory work.

The purpose of this course is (a) to give the student some knowledge of the more simple terms used in general chemistry; (b) to make the student acquainted with some of the properties of the more familiar elements and compounds in nature; (c) to arouse an interest in some of the commercial processes applied in the preparation of some of the most important utilities of life.

The topics covered include general introduction which brings in such differentiations as, those between element and compound, compound and mixture, mixture and solution, atom and molecule, symbol and formula, and physical change and chemical change. Some fundamental laws are stated and illustrated, such as the law of definite proportions, the law of multiple proportions, the laws pertaining to gas volume, the laws relating to reacting volumes and weights, and some of the principles underlying chemical changes. The atomic theory and the valence of atoms, atomic weight and molecular weights are explained. The elements oxygen and hydrogen are studied as separate elements and in their relation to each other. Then water is studied as a compound of these elements. Nitrogen is studied with special stress on the modern commercial methods of obtaining nitrogen from the air. The important compounds of nitrogen are studied in such a way as to make the student acquainted with their properties and to illustrate the systems of nomenclature.

Students may receive two hours credit for doing the lecture work, or four hours for doing both lecture and laboratory work.

2. GENERAL CHEMISTRY—Winter quarter. Two or four hours.

Four hours for chemistry majors.

Fee, \$1.00 for each quarter hour of laboratory work.

The purpose of the course is (a) to extend the student's knowledge of the common terms used in general chemistry; (b) to furnish the student a knowledge of the most important of the nonmetallic elements; (c) to get the student started in the practice of putting together symbols in writing formula and balancing equations according to the theory of ionization.

The topics include an application of the study of acids, bases, salts, normal salts, acid salts, basic salts, and their systems of nomenclature, and an application of the laws so far learned including the laws of mass action, equilibrium, and ionization. Sulphur and its compounds, chlorine and its compounds, and other familiar nonmetallic elements and their compounds are studied in so far as they involve these fundamental laws and principles. The periodic table is introduced with its bearing on; the classification of the elements in their relation to atomic weights and atomic numbers, and the grouping of the elements according to their similarities in properties.

Members of the carbon family and the nitrogen family and their familiar compounds are studied as they are related to the principles of inorganic chemistry.

Students electing two hours take only the textbook work, which is given twice a week. The four-hour course includes two double periods of laboratory work.

**\*3. GENERAL CHEMISTRY—Spring quarter. Two or four hours.**

Four hours when taken as a departmental requirement.

Fee, \$1.00 for each quarter hour of laboratory work.

Prerequisites, Chemistry 1 and 2.

The course is aimed to furnish the student a knowledge of the most common metallic elements and their important compounds, to make him acquainted with the relationships existing among these metallic elements, and to make him acquainted with their reactions with each other; to teach the student general principles involved in the separation of metals from their ores, and to make certain characteristic tests for the metals in their salts.

The alkali metals are studied from standpoints of methods of preparation, properties and uses. The alkaline earth metals are dealt with in the same way, and their compounds such as enter into the industries like glass making, cement making, etc. are studied in a practical as well as a theoretical way. The noble metals are studied in relation to their action with the reagents liable to cause tarnishing or corrosion, and consequently their commercial application. Some attention is given to a few of the rarer metals which are now finding industrial applications.

Two quarter hours of credit go with the textbook work which is given twice per week, and two with the laboratory work which covers two double periods per week.

**\*3b. HOUSEHOLD CHEMISTRY—Spring quarter. Two or four hours.**

Fee, \$1.00 for each quarter hour of laboratory work.

Prerequisites, six hours of Chemistry 1 and 2.

This course is designed especially for home economics students. It offers a practical knowledge of fuels, lighting systems, sanitation, foods, and textiles.

Study is made of the elements and compounds required to make up a good fuel; the chemistry of the elements of lighting systems and the comparative efficiency of different types of light; the chemical examination of water, softening agents, soaps, and cleansing agents. Foods of animal origin and vegetable origin are studied from a viewpoint of food constituents and purposes to be served in the body. Textiles are classified according to the chemical composition, and the methods of determining their various constituents. Dyes and bleaching agents are studied in a practical way.

Two quarter hours are given for the recitation work which occurs twice per week and two for the laboratory work which covers two double periods per week.

**7. QUALITATIVE ANALYSIS—Every quarter. Two or four hours.**

Fee, \$2.00 or \$4.00 according to the hours of credit.

Prerequisites, Chemistry 1 and 2.

This course consists of one lecture each week and in addition a double laboratory period per week put into laboratory work for each hour's credit given. The purpose of the course is to give the student a knowledge of the fundamental principles underlying the classification of the metals and nonmetals into classes according to general group tests, and to give him practice in applying individual tests and thus identifying the different metallic and nonmetallic elements and groups.

For the first two quarter hours the student is given a minimum number of solutions belonging in each of the five tables of metals. He must identify the metal in each of these and do more if time permits. For the second two quarter hours his assignment is likewise for the five acid tables.

**7b. QUALITATIVE ANALYSIS—Every quarter. Two or four hours.**

Fee, \$2.00 or \$4.00, according to the hours of credit.

Prerequisites, Chemistry 1, 2, and 9.

This course consists of individual conferences and laboratory work. The minimum amount of time put in the laboratory is equal to two double periods per week for each credit hour enrolled for. The purpose of the course is to give the student a knowledge and training in making complete qualitative analysis of dry solid substances.

The first two hours of credit in the course are given for making complete analysis of a minimum number of salts, whose bases can be found by means of the tables for detecting the metals, and whose nonmetals can be detected by the tables for detecting the nonmetals. A definite number of these salts are simple salts and a definite number of them are mixed salts.

\*Given also by extension.

If time allows several salts are given which have to be run through the table which tells what groups are represented, then the group table which tells what elements or radical in the group is used to identify such element or radical.

#### 8. JUNIOR COLLEGE CHEMISTRY—Fall quarter. Four hours.

This class meets four times a week. The work consists of lectures, discussions, and demonstrations. The theoretical and the practical phases of elementary chemistry will be intermingled in such a manner as to keep the student interested in the fundamental principles by means of the practical phases of the subject.

Some very familiar substances such as oxygen, hydrogen, and water are studied in such a way as to give the student a knowledge of the terms necessary in the study of chemistry. Some more elements and compounds such as chlorine, sulphur, nitrogen, and ammonia are studied not only with the view to making the student acquainted with more of the terms and some of the fundamental laws of chemistry, but furnishing knowledge of the chemical properties and industrial applications of these elements and their compounds. Carbon and the remainder of the nonmetallic elements are studied with especial reference to fuels, foods, and commercial products. Some of the most familiar metals are studied in relation to their practical applications.

This course cannot be substituted for any major course in this department.

#### 9 and 109. PHYSIOLOGICAL CHEMISTRY—Winter quarter. Four hours.

Prerequisites, Chemistry 1 and 2 for 9 and Chemistry 1, 2, 110, and 111 for 109.

This course is designed for nurses, physical education majors, and home economics majors. Home economics majors minoring in chemistry will take course 107, which is the same as 7 except that about twelve hours extra work will be put in the laboratory or library.

The topics in this course will include a brief study of the classes of foods as they are developed in plants and animals. Water and inorganic salts will be studied from a standpoint of physiological function regulation and food values. Animal and energy and their relation to chemical reactions will be considered briefly. Enzymes and their relation to the digestion of food will be studied, as will salivary digestion, including a study of the chemistry of saliva, the reaction of saliva with certain foods, and the importance of their reactions; stomach digestion, including a study of the reactions of the ingredients of the gastric juice; and intestinal digestion, including the chemical reactions among the secretions themselves and between the enzymes and the food materials. Absorption as it occurs with the different classes of foods will be considered. Circulation in so far as it involves chemistry will be studied. The chemistry of the excretory organs and the excretions as they are related to healthful living will be considered. Metabolism as it relates itself to the different tissues of the body will be studied.

#### 110. ORGANIC CHEMISTRY—Fall and summer quarters. Two or four hours.

Fee, \$1.00 for each hour's credit in laboratory work.

Prerequisites, six hours of Chemistry 1 and 2.

The purpose of this course is to get the student acquainted with the manner of grouping of the elements making up the organic compounds; to give the student practice in arranging symbols in a graphic way so as to show the structure of organic groups and organic molecules; to furnish the student with a knowledge of the relations of the simplest hydrocarbons to their important derivatives and of the relations existing among the different derivatives as they are built on one another and as they increase in complexity from the simplest up the series.

Some new terms pertaining only to organic chemistry are introduced. Some general principles of classification of organic compounds are expounded. The simplest hydrocarbons, methane and ethane, are studied, then follows a consideration of their most important and most useful halogen derivatives. The oxygen derivatives of these two hydrocarbons, such as alcohols, aldehydes, acids, and ethers are studied. The sulphur derivatives are given brief attention. Nitrogen derivatives are treated rather fully. The higher members of the paraffin series, those containing three or more carbon atoms, are treated in the same way as are those of methane and ethane. Mixed compounds of these members are studied. The most important unsaturated compounds are considered.

The practical uses of the outstanding carbon compounds are discussed.

#### \*111. ORGANIC CHEMISTRY—Winter quarter. Two or four hours.

Fee, \$1.00 for each quarter hour of laboratory work.

Prerequisites, six hours of Chemistry 1 and 2 and Chemistry 110.

This course deals with the benzene series of hydrocarbons and their derivatives. The purpose is to teach the student the fundamental princi-

\*Given also by extension.

ples related to this new and different structure, to make him acquainted with different classes of derivatives which can be built on the benzene ring as a basis of a distinctive type of compounds.

The benzene hydrocarbons, as they may be classified according to the combinations of ring and side chains, are studied. The halogen, oxygen, sulphur, and nitrogen derivatives of each of the important combinations are studied. Combinations consisting of two or more benzene rings linked to different side chains are considered in their relation to some outstanding dye products and drugs. The important glucosides and plant alkaloids are studied briefly.

Throughout the benzene series there are many very common, very interesting, and very useful compounds that have a highly organized structure. The trend of this course takes the student from the simple structure, step by step, to highly organized structure, and then gives the interesting information as to the commercial importance of the compound.

**\*112. FOOD CHEMISTRY—Spring quarter. Two or four hours.**

Fee, \$100 for each quarter hour work in the laboratory.

Prerequisites, six hours of Chemistry 1 and 2, and six hours of Chemistry 110 and 111.

This course consists of lectures and discussions twice a week and double laboratory periods twice a week throughout the quarter. The lectures may be taken for two hours credit and the lectures and laboratory work may be taken for four hours credit. The course is designed to give the student a knowledge of the chemical composition of the chief human food materials, to show him the relation of these materials to the digestive secretions of the body, and show him how these materials function in body processes.

A study is made of the carbohydrates with reference to their food value, their digestibility and the purpose they serve in the body functions. The fats are studied as to their sources in human foods, their vitamine content and all of their purposes in the body. The proteins are studied as to their sources, composition, and growth promoting constituents. The chemical changes occurring in the processes of digestion, absorption and assimilation are studied with reference to body building and body repair.

**114 and 114b. QUANTITATIVE ANALYSIS—Every quarter. Four hours for each course.**

Fee, \$4.00 for each course.

Prerequisites, Chemistry 1, 2, 3, and 9.

These are laboratory and consultation courses. The student works in the laboratory a double period per week for each hour's credit. The purpose of the course is to give the student training in the technic of accurate weighing and measuring; to develop a skill in the manipulation of apparatus; to cultivate a deeper knowledge of chemical reactions as far as ion concentrations, solubility products, and end points are concerned, and to teach the student the methods of making the necessary calculations involved in volume and weight relations existing in chemical reactions.

As an introduction to either the gravimetric or volumetric work, the student learns to calibrate weights and to manipulate the analytical balances. In the gravimetric work, the student makes some determinations, which call for precipitations, filtrations, ignition of precipitates, taring of crucibles, drying and weighing of products, and calculation of percentages of constituent parts. In the volumetric work, the student learns to calibrate pipettes, burettes, and graduated flasks. Some determinations are made which involve alkalinity, acidimetry, oxidation, and iodimetry. Types of determinations are selected which involve calculations of normal strength and litre of different solutions and by such means estimating percentages of constituent parts.

**\*115. INDUSTRIAL CHEMISTRY—Spring quarter. (Not given 1929-30.) Four hours.**

Fee, \$2.00. Prerequisites, six hours of Chemistry 1 and 2.

The course consists of two recitations and two double laboratory periods per week. This course serves especially well to give the student an appreciation of the wide extent to which chemistry in the industries serves to foster the forces of civilization. The student learns how the fundamental principles of chemistry are applied in the various fields of industry. The student preparing to teach chemistry obtains many suggestions as to how the practical side of chemistry may be presented in teaching elementary work.

First, the machinery and appliances necessary in industrial plants given to the chemical operations are given a general study. The general phases of metallurgy and the preparation of the metals for their commercial uses are studied to some extent. Building materials, such as cement, bricks, mortar, stucco, plaster, terracotta and like materials are touched upon. The modern road-building materials are discussed briefly. The chemistry of glass-making is taken up. Paints and varnishes are

\*Given also by extension.

considered from the viewpoints of natural source, artificial preparation, proper application, etc. Cellulose products, such as paper, bakelite, etc., are given brief consideration.

116. AGRICULTURAL CHEMISTRY—Fall quarter. Four hours.

Fee, \$2.00. Prerequisites, six hours of Chemistry 1 and 2.

The course consists of two lectures per week and two double laboratory periods. The purpose of the course is to give the student an appreciation of the wide application of the principles of chemistry to the different phases of agriculture; To give to the chemistry teacher a training which will enable him to be of practical assistance to the agriculturist of any community; to prepare the prospective chemistry teacher to more effectively present the practical side of chemistry in his general teaching.

The chemistry involved in the relations of air and soil, water and soil, and fertilizers and soil, is given a general consideration. Some of the chemistry of soil and its relation to plant life is studied, as are some of the chemical reactions in the growth of plants that have to do with animal foods. Animal foods and animal nourishment are taken up in a general way.

The two hours of laboratory work connected with this course consists of soil analysis and plant analysis. The soil is analyzed with reference to its alkalinity, acidity, organic matter; phosphorus, calcium, potassium, and sodium contents. An animal food may be analyzed with reference to its percentages of carbohydrates, proteins, etc.

117. THE TEACHING OF CHEMISTRY—Fall quarter. (Not given 1929-30.) Four hours.

This course consists of lectures, discussions, papers written from library references, and practices in setting up apparatus and demonstrating experiments. The course is designed to give the student a knowledge of the problems connected with equipping laboratories, handling apparatus and materials, organizing students into groups for laboratory work, selecting and organizing lists of experiments for courses of study, and the methods of instructing in the laboratories.

The psychology of teaching chemistry is discussed briefly. The relative importance of laboratory work and classroom work is considered. The relative value of different types of experiments and the order of their position in laboratory courses are discussed. The manner of conducting student laboratory work in such a way as to make it most valuable to the student is considered. The systems of keeping laboratory notes, and the educational value of different types of note-keeping is given attention. Lesson plans and the order of topics in an elementary course are studied. The number and kind of mathematical problems to be solved in an elementary chemistry course are considered. The application of different types of examination questions is studied in their particular relation to the subject of chemistry.

#### COURSES FOR GRADUATE STUDENTS

Graduate students may do senior college courses and get graduate credit. In such cases there will be extra requirements.

212. FOOD ANALYSIS—Every quarter. (Not given 1929-30.) Two or four hours.

Fee, \$2.00 or \$4.00. Prerequisites, Chemistry 1, 2, 9, 9b, 114, 114b, 110, 111 and 112.

This is a laboratory and consultation course. The student works in the laboratory one double period per week for each hour's credit. The purpose of this course is to train the student in the methods of making complete analysis of food materials, and to train him in detecting and determining food adulterants in foods.

An analysis of a food such as oatmeal, determining its water, fat, protein, carbohydrate, crude fiber, and mineral contents. Such food preservatives as sulphites, borates, salicylates, and benzoates are tested for. Illegitimate artificial colors are sought for in certain foods. Maple sugar products, flavoring extracts, etc., may be analyzed with a view to determining the percentage of the genuine article in them.

215. INDUSTRIAL CHEMISTRY—Every quarter. (Not given 1929-30.) Two or four hours.

Fee, \$2.00 or \$4.00. Prerequisites, Chemistry 1, 2, 9, 9b, 114, 114b and 115.

This is a laboratory and consultation course. A double laboratory period is required for each hour's credit in the course. This course is designed to give the student a fundamental knowledge of the general technic connected with certain industrial analyses. Its purpose is also to

give the student a deeper insight into the theoretical chemistry related to some of the technical processes involved in industrial chemistry.

The student may enter upon any one or more of the following chemical industries: steel, oil, water, gas, fertilizers, cement, dyes, sugar, etc.

**\*221. ADVANCED INORGANIC CHEMISTRY—Winter quarter. Two or four hours.**

Fee, \$1.00 per hour for each hour's credit enrolled for in laboratory work. Prerequisites, Chemistry 1, 2, and 9.

This course is designed for the purpose of taking the student deeper into the fundamental principles of chemistry than he could go in courses 1, 2, and 9; and also for the purpose of giving the student an extended margin of information regarding the application of these principles in the many different fields of chemistry, which will enable him to be a better teacher of chemistry. Incidentally this course takes the student deeper into the problems of estimating proper quantities for complete reactions, and the balancing of equations.

Topics covered include the laws of matter and energy, such as the laws of conservation, chemical change, combining weights, definite proportion, multiple proportion, Law of Gay-Lussac, Avogadro's Law, the laws of dissociation, the laws of gas volume; and the laws of diffusion, liquification and solution. Some fundamental application such as how to determine molecular weights, atomic weights, and equivalent weights; a study of hydrogen, oxygen and the halogens with their relations to each other, a study of sulphur and the other members of the family, a study of nitrogen and the other members of its family, and also their compounds; a study of carbon as an element in its different allotropic forms and a study of its inorganic compounds, such as the oxides, sulphides, carbonates and cyanides; and a study of the other members of the carbon family.

**\*222. ADVANCED INORGANIC CHEMISTRY—Spring quarter. Two or four hours.**

Fee, \$1.00 per hour for each hour's credit enrolled for in laboratory work. Prerequisites, Chemistry 1, 2, and 9.

This course is a continuation of chemistry 221. The topics have to do with the metallic groups. The purpose in this course is not so much to take the student deeper into the fundamental principles as to give him an organized and systematized fund of information regarding the metallic elements as they are related to the groupings in the periodic table. Some fundamental principles such as oxidation and reduction, and the principles underlying displacement are studied more widely than in any previous course.

The alkali metals are studied with reference to their properties, sources, and reactions involved in their preparation, and the preparation of their important products. The copper, silver, and gold group is studied in respect to metallurgical processes, and reactions involved in the making of their chief commercial products. The alkaline earths are considered in regard to their natural formations and the preparation of their important compounds. The noble metals are taken up according to their family groups. Metallurgical processes are compared. The manufacture and commercial use of many of their compounds are studied in more or less detail. Many of the rare metals, which are finding commercial use now are studied.

**223. RESEARCH IN CHEMISTRY—Every quarter. Four hours.**

To be taken by candidates for the master's degree in the first quarter of their graduate work. This is a required seminar and conference course for graduate students in all departments granting the degree of Master of Arts. The Director of Educational Research will meet the graduate seminar three times each week and will confer with individual students upon appointment. In seminar the proper technic to be used in educational investigations and allied topics is considered and opportunity is given each student to report upon and discuss the details of his study so far as time will permit. Among the topics dealt with are: The scientific method; education as a science; educational research; types of research problems; the selection of a problem; the bibliography; methods of investigation; the master's study as a process of ordered thinking; the agenda of procedures and technics; the collection, classification, presentation, and interpretation of educational data; practicums in the organization, interpretation, and reporting of educational material; etc.

**224. RESEARCH IN THE TEACHING OF CHEMISTRY—Four hours.**

This course is intended primarily for graduate students working on their masters' theses.

**225. RESEARCH IN THE TEACHING OF CHEMISTRY—Two hours.**

A continuation of Chemistry 224.

\*Given also by extension.

## COMMERCIAL ED.

		FIRST YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Winter	Spring	Civ'l. 1 Com. Ed. 11 Ed. 1 Phys. Ed. Sci. 1	Art 1 Com. Ed. 11 Eng. 4 Hyg. 1 Mus. 25 Phys. Ed.	Civ'l. 1 Com. Ed. 11 Ed. 1 Eng. 0 Phys. Ed.	Fall	Winter
			Art 1 Com. Ed. 12 Com. Ed. 4 hours Mus. 25 Phys. Ed. Sci. 2	Com. Ed. 12 Com. Ed. 4 hours Civ'l. 1 Phys. Ed. Sci. 1	Com. Ed. 12 Com. Ed. 4 hours Eng. 4 Hyg. 1 Phys. Ed.		
			Com. Ed. 13 Com. Ed. 14 Hyg. 1 Observ. 1 Phys. Ed. Psych. 2a	Com. Ed. 13 Com. Ed. 14 Ed. 1 Elective Phys. Ed. Sci. 2	Art 1 Com. Ed. 13 Com. Ed. 14 Elective Mus. 25 Phys. Ed. Sci. 1		

		SECOND YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Winter	Spring	Com. Ed. 1 Phys. Ed. Psych. 2b Teaching 1	Com. Ed. 1 Electives (6 hours) Observ. 1 Phys. Ed. Psych. 2b	Com. Ed. 1 Ed. 10 Eng. 21 Phys. Ed. Sci. 2	Fall	Winter
			Com. Ed. 2 Com. Ed. 4 hours Ed. 10 Eng. 21 Phys. Ed.	Com. Ed. 2 Com. Ed. 4 hours Phys. Ed. Psych. 2b Teaching 1	Com. Ed. 2 Elective (2 hours) Eng. 22 Observ. 1 Phys. Ed. Psych. 2a		
			Com. Ed. 3 Com. Ed. 4 Eng. 22 Hist. 125 Phys. Ed.	Com. Ed. 3 Com. Ed. 4 Ed. 10 Eng. 21 Phys. Ed.	Com. Ed. 3 Com. Ed. 4 Phys. Ed. Psych. 2b Teaching 1		

		THIRD YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Winter	Spring	Com. Ed. 150 Com. Ed. 4 hours Hist. 126 Minor	Com. Ed. 150 Com. Ed. 4 hours Eng. 22 Hist. 125	Com. Ed. 150 Com. Ed. 4 hours Ed. 10 Minor	Fall	Winter
			Com. Ed. 151 Com. Ed. 4 hours Ed. 116 Elective Minor	Com. Ed. 151 Com. Ed. 4 hours Ed. 116 Hist. 126	Com. Ed. 151 Com. Ed. 4 hours Hist. 125 Minor		
			Com. Ed. 152 Com. Ed. 157 Observ. 2 Psych. 116	Com. Ed. 152 Com. Ed. 157 Elective Minor	Com. Ed. 152 Com. Ed. 157 Com. Ed. 4 hours Hist. 126		

		FOURTH YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Winter	Spring	Com. Ed. 138 Elective Teaching 2 Minor	Com. Ed. 138 Elective Minor Observ. 2 Psych. 116	Com. Ed. 138 Ed. 116 Elective Soc. 105	Fall	Winter
			Com. Ed. 4 hours Elective Soc. 105 Minor	Elective Com. Ed. 4 hours Teaching 2 Minor	Com. Ed. 4 hours Minor Observ. 2 Psych. 116		
			Com. Ed. 4 hours Ed. 111 Elective Minor	Com. Ed. 4 hours Ed. 111 Elective Soc. 105	Com. Ed. 4 hours Ed. 111 Minor Teaching 2		



## COMMERCIAL EDUCATION

This department offers a complete program of courses carefully planned and organized for the training of commercial teachers in secondary schools, junior colleges, and teacher-training institutions. No attempt has been made to arrange the program of courses, nor to adapt the courses to the needs of students who plan to do office work. The training of commercial teachers is the sole aim of the department.

A number of elective courses are offered in the department. Many of them are of a general nature and would be desirable courses for students majoring in other departments. Some of the elective courses for third and fourth year students will be offered once only every two years. Majors in this department should plan their courses so as to take full advantage of these electives.

Students who have had courses similar in content to any of those required in this department will be excused from taking the same work again upon satisfying the instructor that they have had equivalent work. Students who have had two years of shorthand and typewriting in the secondary schools may not take C. E. 1, 2, 11, and 12 for credit.

### A FOUR-YEAR COURSE OF STUDY IN COMMERCIAL EDUCATION

Majors in Commercial Education are required to distribute their core subjects according to the diagram on page 84. Their departmental subjects should be distributed according to the diagram in the first two years, but in the junior and senior years more liberty is allowed in making the distribution.

In addition to the core subjects listed on page 58, the following Commercial Education courses are required of majors in the department: Com. Ed. 1, 2, 3, 4, 11, 12, 13, 14, 138, 150, 151, 152, 157.

Majors in Commercial Education are required to take one twenty-four hour minor in Commercial Education and at least one minor of from twelve to twenty-four hours in some other department. Minors in athletics, foreign language, geography, history, music, and sociology are suggested, but the student is free to choose his elective minor. The program of subjects constituting a minor in the department should be arranged by consulting the head of the department or the faculty adviser.

The arrangement which follows requires eighty hours of core subjects, seventy hours of Commercial Education, and leaves forty-eight hours open for a minor outside the department and free electives. Total 198 hours.

#### 1. SHORTHAND I—Fall, spring, and summer quarters. Four hours.

This course, which covers the first ten lessons of Gregg shorthand as outlined in the Gregg Manual, is a beginning course and is required of all majors in commercial education who have not had previous training in the subject of shorthand. Credit is granted only on completion of the shorthand work of the second quarter.

#### 2. SHORTHAND II—Winter and summer quarters. Four hours.

Prerequisite, C. E. 1 or the equivalent.

This course covers the last ten lessons in the Gregg Manual and is a continuation of C. E. 1.

#### 3. SECRETARIAL PRACTICE I—Spring quarter. Four hours.

Prerequisite, C. E. 2 or the equivalent.

This course offers a review of the principles of Gregg shorthand and it is a beginning course in shorthand dictation. It will include the taking of dictation with more emphasis on speed than was attempted in C. E. 2. Transcriptions will be made of dictated material and some attention will be given to the arrangement of special forms. Special methods of presenting shorthand and conducting beginning dictation classes will be considered.

† 4. METHODS OF TEACHING SHORTHAND—Spring quarter. Two hours.

Prerequisite, C. E. 2 or equivalent.

The chief aim of this course is to suggest special methods of teaching Gregg shorthand. Some attention is given to the materials used in shorthand.

10. OFFICE APPLIANCES AND SPECIAL EQUIPMENT—Every quarter, Four hours.

This course aims to familiarize the student with modern office machines and equipment. It provides actual practice on the following machines and equipment: mimeograph, mimeoscope, multigraph, dictaphone, and a variety of calculating machines and filing equipment. It also provides the taking of dictation and the handling of actual correspondence. A minimum amount of work will be assigned to students in other departments on the campus. Students are required to do two hours of practice work daily for four days a week.

\*11. TYPEWRITING I—Fall and winter quarters. Four hours.

Fee, \$1.00.

This class meets four times a week. It is required of all secretarial majors except those who have had at least one year of typing in high school. Students who have had some training in typing should arrange with the instructor or head of the department to be excused from this course.

This course deals with memorizing the names of the operative parts of the typewriter and their correct use and memorizing the keyboard by the touch system.

Special attention is given to correct habit formation relative to operating the machine, memorizing the keyboard, position of the hands over the keyboard and general posture of the body at the machine. Beginning typewriting shall receive credit only on completion of the typewriting work of the second quarter.

\*12. TYPEWRITING II—Winter and spring quarters. Four hours.

Fee, \$1.00.

Prerequisite, C. E. 11 or the equivalent. A continuation of C. E. 11. Required of all secretarial majors unless excused by the instructor. Students who have had some training in touch typewriting either in high school or business school should consult the instructor or head of department before enrolling for this course.

The course deals with a thorough review of the operative parts of the typewriter and their correct use; with International Typewriting rules for checking papers; with letter forms, addressing envelopes, rough drafts, telegrams, etc. Special attention is given to acquiring speed in typing with accuracy.

\*13. TYPEWRITING III—Fall, spring, and summer quarters. Two hours.

Fee, \$1.00. Prerequisite, C. E. 12 or the equivalent.

This course includes a review of the names and uses of operative parts of the typewriter, a review of the International Rules for correcting papers, with an introduction to the preparation of manuscripts, tabulation and billing, and to law and business papers. Accuracy in typing is stressed throughout the course. Speed tests are given at regular intervals with an opportunity given to win the awards as given by the different typewriter manufacturing companies. This course is required of all candidates for the Bachelor of Arts Degree.

( 14. METHODS OF TEACHING TYPEWRITING—Fall, spring, and summer quarters. Two hours.

Prerequisite, C. E. 12 or the equivalent. Class meets twice a week.

The purpose of the course is to give prospective teachers in typewriting a knowledge of the equipment that is necessary to teach typing successfully. It also deals with the different texts on the market and special and different methods of procedure. Students are required to know the names and uses of all the operative parts of at least all the different makes of typewriters in the department, they must be able to write on the typewriter accurately at a moderate rate of speed.

\*15. BUSINESS REPORTS AND COMPOSITIONS—Winter quarter. Two hours.

Prerequisite, Eng. 0 or Eng. 4 or the equivalent.

This course attempts to give the teacher of business English in high school a better background. The principles of literary composition will be applied to commercial correspondence, reports, and compositions. Business

\*Given also by extension.

situations will be analyzed, letters classified into type forms, and the requisites of each class will be exemplified by models. The psychology of the good sales letter will be analyzed, and principles derived from this analysis will be applied to practice compositions. Special consideration will be given to letters of application, letters of complaint, sales letters, follow-up letters, letters of collection, and other special correspondence.

**16. MATERIAL AND METHODS FOR TEACHING FILING—Winter quarter. Two hours.**

Fee, \$1.00.

The purpose of this course is to outline the material and the methods necessary for a semester course in filing suitable for the secondary school curriculum. It also provides practice with modern equipment and the following systems of filing: The loose sheet system; the Shannon File; vertical filing; methods of indexing and alphabetical filing; numerical filing; direct name filing; geographical filing; subject filing; follow-up devices; copying outgoing papers; card record systems; special card systems; document and check filing; card ledgers; stock record keeping; and transfer devices.

The practice work is not extensive but sufficient to give the student a working knowledge of the various systems, devices and kinds of equipment. Emphasis will be placed upon the variety of material and the organization and presentation of this material to high school students.

**17. SECRETARIAL BOOKKEEPING—Spring quarter. Two hours.**

This course attempts to present a plan of keeping the records necessary for the average professional man such as a doctor, lawyer, or engineer, without going into detail in the development of accounting principles. A short practice set will be written up by the student illustrating the necessary books and records that might be kept and the kinds of transactions that would ordinarily be handled. All of the theory involved is based on good accounting principles but presented in the simplest possible way.

**\*36. HANDWRITING METHODS—Fall, winter, and summer quarters. Two hours.**

This course combines practice and special methods of teaching penmanship for teachers and supervisors of handwriting. The class meets four times a week and no outside preparation is required. All who take this course are required to reach a standard of skill equal to eighty as measured by the Zaner Handwriting Scale No. 5 before credit will be given.

**\*37. BUSINESS MATHEMATICS—Fall, spring, and summer quarters. Four hours.**

The principal aim of this course is to give the commercial teacher a better mathematical background for the subject of commercial arithmetic in high school. It correlates very closely with all courses in accounting, auditing, and the income tax law. The course begins with a very brief review of percentage, using simple applications. Mercantile discounts, problems of buying and selling merchandise, interest, bank discount, compound interest, periodic or installment payments, insurance, commission, taxes and problems or trading concerns are treated.

**41. MATERIAL AND METHODS FOR JUNIOR BUSINESS TRAINING—Spring and summer quarters. Two hours.**

This course attempts to survey the content of textbooks now being used for classes in commercial education in junior high schools and to suggest material that is available for such courses. The whole problem of commercial education in the junior high school will be discussed. Some of the topics treated in this course are: the place of commercial education in the junior high school; the vocational aspects of commercial education in the junior high school; the aims and objectives of commercial education in the junior high school; the content that should be emphasized; try-out courses in commercial education; textbooks and material available.

**\*42. ADVERTISING—Spring quarter. Two hours.**

This course deals with the principles of good advertising. An attempt is made to combine all of the arts and sciences that enter into the work of advertising and to study the fundamentals of each with reference to all the others. The course treats the economic, physical, and psychological factors, together with the essential principles of artistic arrangement and English composition as applied to the construction of advertisements. Practical aspects of the subject are held constantly in mind as the course develops. Considerable attention is given to the analysis of advertisements selected from current periodicals. Some attention will be given to the materials available for the teaching of advertising in secondary schools.

**\*53. SALESMANSHIP—Winter quarter. Four hours.**

This course attempts to reconcile sound economics with practical business procedure. Personal selling is essentially an economic activity, direc-

\*Given also by extension.

ted, therefore, toward the satisfaction of economic wants. The personal selling which effectively serves those wants is socially and economically desirable. In the approach to the subject a study of wants and their nature is taken up followed by a discussion of both buyers and sellers in their efforts to satisfy wants through personal selling effort. The general principles developed in such analyses apply to intangible products such as insurance or securities as well as to materials, equipment, and consumers' goods of tangible nature.

The first part of the course is based on a more detailed analysis of personal selling processes as applied to buyers in general, and is adapted to practically all classes of buyers. The second part of the course deals with the problems and relationships of the salesman and his employer in the direction of personal selling as a business activity.

**105. SECRETARIAL PRACTICE II—Fall quarter. Four hours.**

Prerequisites, C. E. 3 and 13 or their equivalents.

This course is a continuation of C. E. 3. Special emphasis will be put upon speed both in taking dictation and in transcribing. The handling of correspondence and filing will receive attention. Methods and devices for acquiring speed in handling correspondence will be presented and discussed. The chief aim of this course is to bring to the attention of the prospective teacher the problems of acquiring speed on the part of students in high school classes in dictation.

**106. SECRETARIAL SCIENCE I—Spring and summer quarters. Four hours.**

The aim of this course is to familiarize the prospective teacher with the requirements of business offices insofar as these apply to the teaching of commercial subjects in the high schools where courses are being given. The course covers the field from a practical angle and is planned to help teachers to unite school and community interests. This includes a study of business graphs of all sorts, editing, proofreading, briefing, charting, detailed activity studies, and allied subjects. The material handled deals directly with the presentation of such work to pupils.

**\*138. COMMERCIAL LAW I—Fall quarter. Four hours.**

This course treats the subjects of contracts and negotiable instruments. It is a treatment of the common law principles that apply to these subjects. The Colorado Statutes are studied to the extent that they apply to the topics treated. Cases and hypothetical problems are used in conjunction with the lectures and class discussions. The course begins with the nature and classification of contracts; the essential elements of a valid contract, various forms of, discharge, and remedies. The following topics are treated under the heading of negotiable instruments: bills of exchange; promissory notes; checks; form and interpretation; indorsements; defenses and presentment. The course correlates very closely with all courses in accounting, economics, and management.

**\*139. AN INTRODUCTION TO BUSINESS—Fall quarter. (Not offered 1929-30.) Four hours.**

A broad picture of the entire business field is presented in this course, without going far into detail at any point with a review of such historical material as is necessary for an understanding of present business phenomena. Special attention is given to the most important industries and business concerns of the country. The first part of the course deals with the business aspects of the industries furnishing the raw materials of commerce. This is followed by a discussion of production and distribution which traces the raw product from the producer to the workshop and to the consumer. The next part of the course deals with business organizations and business functions. Such topics as risk bearing institutions, business men's associations, and relations of government to business are touched upon near the end of the course. Special attention throughout the course is given to the problems of the small business. This course should be of special interest to teachers interested in vocational guidance and it will be very helpful to the student contemplating the selection of a field of specialization in business.

**\*140. INVESTMENTS—Winter and summer quarters. (Not offered 1930.) Four hours.**

This course attempts to cover the entire field of investments in a clear, concise, non-technical manner. The tests by which a sound investment are analyzed are treated together with the methods of applying these tests to securities. A study of the information available on the financial page of the daily papers in order that it may be utilized in buying or selling securities. The mechanics of the purchase and sale of securities and principles back of judicious investments are considered. Technical terms are avoided as much as possible. A careful distinction is made and maintained throughout the course between investment and

\*Given also by extension.

speculation. The following aims are set forth for the course: to discourage a tendency toward speculation; to create a tendency toward thrift and saving; to help the average person find suitable investment possibilities; and, to prepare teachers to teach the same subject in secondary schools.

**\*144. COMMERCIAL LAW II—Winter quarter. Four hours.**

Prerequisite, C. E. 138 or the equivalent.

This is an advanced course in commercial law. It treats the law of corporations, real property, bailments and bankruptcy. Considerable time will be devoted to a study of the legal forms and procedure in connection with these topics. Colorado statutes pertaining to corporations will be studied.

**\*150. ACCOUNTING I—Fall and summer quarters. Four hours.**

This course is designed to serve as an introduction to the entire field of accounting. It is intended to give the student an understanding of the steps that compose what may be called the accounting process, and of that process as a whole. The financial reports, balance sheet, and statement of profit and loss are considered, and from them is developed the need for the ledger account as a means of classifying the information needed for these reports. In turn the construction and interpretation of particular accounts, and the steps necessary in preparing the reports at the end of a period, in adjusting the accounts to show an agreement with the reports, and in "closing" the ledger are taken up. Books of original entry, such as the special journals, are discussed and illustrated. The principles considered are developed by class discussion and illustrative laboratory exercises.

**\*151. ACCOUNTING II—Winter and summer quarters. Four hours.**

Prerequisite, C. E. 150 or the equivalent. This course is a continuation of C. E. 150.

Various types of business papers are considered in their relation to the records and to the routine of the business. Summary statements of different kinds are discussed and illustrated. Types of accounting records and their development, especially as regards the partnership business, are taken up in detail. The principles considered are developed by means of class discussion, lectures, and illustrative laboratory material. A complete set of partnership books with a minimum of bookkeeping detail are written up by the student as homework in connection with the course.

**\*152. ACCOUNTING III—Spring quarter. Four hours.**

Prerequisites, C. E. 150 and 151 or the equivalent.

This course is designed to cover the more advanced principles of accounting, emphasizing especially some of the problems of corporation accounting. The proper evaluation of balance sheet items, as regards depreciation and the maintenance of fixed assets, receives special attention. A complete set of corporation books with a minimum of bookkeeping detail are written up by the student as homework with this course. Principles considered are developed by lectures, discussion and illustrative laboratory problems.

**\*155. THE ECONOMICS OF RETAILING—Fall quarter. Four hours.**

This course aims to present fact material and to suggest constructive thought on the subject of retail distribution. It presents but little theory and advocates no particular or special method of doing the work of the retail store. The course begins with a brief historical sketch of the development of the retail business and methods of distribution of goods. Some of the problems of retailing that are treated in the course are: securing good salespeople; education for retail salespeople; the wages of salespeople; location and rent in the retail business; the fixing of retail prices; the expenses of retailing.

The following kinds of retail stores and their relation to our system of distribution are studied: the department store; the chain-store systems; the mail order house; general stores and specialty shops. Other topics treated are: the failure rate in the retail business; public regulation of the retail business, and the ideal retailing system.

**157. METHODS OF TEACHING BOOKKEEPING—Spring and summer quarters. Two hours.**

This course attempts to present special methods for the teaching of bookkeeping and accounting. The materials necessary for the teaching of each of the above subjects are also considered. The aim of the course is to furnish concrete, practical suggestions on the methods employed by successful teachers in presenting the commercial subjects listed above.

\*Given also by extension.

**158. PROBLEMS IN COMMERCIAL EDUCATION—Spring quarter. Four hours.**

For seniors and graduate college students only. This course provides for the treatment by research and study of some of the most important problems in commercial education. The following topics will be treated: state and city supervision; the commercial curriculum; the establishment of school and community cooperation in business training; job analysis, of the kind of positions that are to be filled with high school students; the kind of training expected by the business man; the relation of the department of commercial training in the high school to the school of commerce or college of business administration in the university; present tendencies in commercial education; the content of the commercial subjects ordinarily offered in our secondary schools.

**159. AUDITING—Winter quarter. Four hours.**

Prerequisite: C. E. 152 or the equivalent.

This course is offered for the benefit of teachers of bookkeeping and accounting as a final summary of the principles of accounting and the relationship of accounts. Only fundamental principles of auditing are developed and a sufficient amount of laboratory work is provided to furnish an opportunity to apply these principles. Teachers of bookkeeping and accounting are often called upon to make simple audits in the community where they are teaching and this course should prepare the teacher to do this kind of work. It will also aid the teacher in the planning of systems of accounts for local concerns that may ask for such advice.

**160. BANKING PRACTICE—Winter quarter. (Not given 1930.) Four hours.**

Prerequisite, C. E. 152 or the equivalent.

This course includes a study of the principles of money and banking, state and national banking laws, the Federal Reserve banking system, loans and discounts, commercial paper, and savings banks. The course provides for some practice work in handling the books and records of a bank. Popular accounting machines are demonstrated in connection with the course. This course aims to prepare the prospective teacher to teach bank bookkeeping, the principles of banking, or to organize a school bank.

**\*161. COST ACCOUNTING—Fall quarter. Four hours.**

Prerequisite, one year of bookkeeping or accounting or the equivalent.

A study of accounting principles, books and records suitable for and adaptable to the keeping of accurate costs of making things. It is a study of "cost of production" as well as of cost accounts. A high order of professional skill and experience is required to work out the details of a satisfactory cost system for a concern of any considerable size, where the manufacturing processes are at all complicated. Cost accounting is, therefore, given a somewhat fuller explanation in this course than would otherwise be necessary, although the discussion is directed to the records and book-keeping features of the subject rather than those that relate to shop organization, shop management, labor efficiency, and cost installation, although these topics are given some incidental attention.

**\*165. BUSINESS ADMINISTRATION—Spring quarter. (Not given 1929-30.) Four hours.**

This course treats the problems of business administration in an introductory way. It is intended to be a basic course in business administration. The course attempts to discover some of the business problems of the executive or administrator and then to discover some of the control policies or devices of the manager. The course attempts to show the problems of business administration as an interrelated whole and to indicate the lines of study which will presumably lead to solution of those problems. Some of the topics treated are: the administration of personnel; the administration of market problems; the administration of finance; the administration of production; the administration of risk bearing; the form of the business unit; basic features of administration; and an analysis of a business case.

**212. COMMERCIAL EDUCATION IN SECONDARY SCHOOLS—Fall and summer quarters. Two hours.**

A study of the commercial curriculum for the junior and senior high school. The content of courses, the year in which they should be offered, and the objectives of each will be treated. The educational qualifications and training of commercial teachers required by different states for certification will be studied. Some of the other topics that will be treated are: the necessity for academic training along with commercial education; the present status of commercial education in secondary schools and the noticeable trends; the expansion of the commercial curriculum for the purpose of offering more opportunities for specialization; the inclusion of a definite program of subjects for the student who does not care to specialize

\*Given also by extension.

but who wants some business training; placement and follow-up of graduates; the status of commercial subjects as offerings for college entrance requirements, and many other topics that cannot be mentioned for want of space.

213. **COMMERCIAL EDUCATION CURRICULA**—Winter and summer quarters. Two hours.

This is a course dealing with the growth and development of commercial education in the United States with particular attention given to the program of courses offered by different educational institutions of secondary rank and also some attention to the courses offered by institutions of higher learning. An attempt will be made to discover the aims and purposes of each institution and the relationship that exists between them. The following topics will be treated: the history of commercial education in the United States; the present status of commercial education in secondary schools; the curriculum of the private business school, the junior high school, the senior high school, the school of commerce, the teacher training institution, the college and the university; the relation of the secondary school commercial curriculum to each of the other curricula.

223. **RESEARCH IN COMMERCIAL EDUCATION**—Every quarter. (Taken in the first quarter of graduate work). Four hours.

This is a required seminar and conference course for graduate students who are working on their masters' investigations. The director of educational research meets the group three times each week and confers with individual students in the research office. Small group conferences are held when needed. Each student meets his thesis adviser regularly.

224. **RESEARCH IN COMMERCIAL EDUCATION**—Every quarter. Four hours.

Prerequisite, Ed. 223.

This is a seminar and conference course for graduate college students who are working on their masters' theses. Students will have an opportunity to report on the progress being made with their studies at each meeting of the class. All students majoring in commercial education who are candidates for the master's degree will be required to include this course in their program for two quarters. Research work will be conducted by the candidate under the supervision of the head of the department and this course offers an opportunity for discussion of the problem and plans for its development.

225. **RESEARCH IN COMMERCIAL EDUCATION**—Every quarter. Two hours.

This course is a continuation of C. E. 24.

## CONTEMPORARY CIVILIZATION

A college education should give students a better understanding of contemporary life and its complexity of problems and issues. This understanding can be obtained best through a helpful interpretation of human activity. To give such an interpretation, nontechnical in its treatment, is the purpose of the Department of Contemporary Civilization. This interpretation is in fundamental agreement with the results of recent studies in anthropology, sociology, and related fields. It is felt that these fields offer intelligent people of today certain leading principles and a considerable array of specific data that can help them to a better understanding of contemporary life and its problems.

### COURSE OF STUDY

1. **CIVILIZATION—INTRODUCTION TO CONTEMPORARY CIVILIZATION**—Fall and winter quarters. Four hours.

Required of all first year students.

This course presents an organization of materials around four significant topics: (1) The Social World, emphasizing the socio-biological view of human nature and treating the social environment; (2) What We Are, in which the general phases of human development and the organization of intellectual life are discussed; (3) The Social Complexes, in which social routines, values, and innovations are treated; and (4) Contemporary Ways of Life, in which the family, religion, industry, art, and science are emphasized as fundamental social modes.

\*Given also by extension.

KINDERGARTEN-PRIMARY MAJORS  
FOUR-YEAR CURRICULUM

FIRST YEAR			
Sec. A	Sec. B	Sec. C	
Fall	Civ'l. 1 Ed. 1 Geog. 50 Phys. Ed. Sci. 1	Art 1 Eng. 4 Geog. 50 Hyg. 1 Mus. 25 Phys. Ed.	Fall
Winter	Art. 1 Ed. 3a Ed. 3b Mus. 25 Phys. Ed. Sci. 2	Art 2 Civ'l. 1 Elective Phys. Ed. Sci. 1	Winter
Spring	Art 2 Hist. 13a Hyg. 1 Observ. 1 Phys. Ed. Psych. 2a	Ed. 1 Elective Phys. Ed. Sci. 2	Spring
		Art 2 Civ'l. 1 Eng. 1 Eng. 0 Phys. Ed.	
		Elective Eng. 4 Geog. 50 Hyg. 1 Phys. Ed.	
		Art 1 Ed. 3a Ed. 3b Mus. 25 Phys. Ed. Sci. 1	

SECOND YEAR			
Sec. A	Sec. B	Sec. C	
Fall	Ed. 3c Elem. Sci. 1 Phys. Ed. Psych. 2b Teaching 1	Ed. 3a Ed. 3b Hist. 13b Observ. 1 Phys. Ed. Psych. 2a	Fall
Winter	Ed. 10 Elective Eng. 21 Mus. 1a Phys. Ed.	Ed. 3c Mus. 1a Phys. Ed. Teaching 1	Winter
Spring	Elective (8 hours) Eng. 22 Hist. 125 Phys. Ed.	Ed. 10 Elective Elem. Sci. 1 Eng. 21 Phys. Ed.	Spring
		Ed. 10 Eng. 21 Fys. Ed.	
		Ed. 10 Eng. 22 Hist. 13b Observ. 1 Phys. Ed. Psych. 2a	
		Ed. 3c Mus. 1a Phys. Ed. Fsyeh. 2b Teching 1	

THIRD YEAR			
Sec. A	Sec. B	Sec. C	
Fall	Ed. 150 Ed. 258 Elective Hist. 126	Ed. 150 Ed. 258 Eng. 22 Hist. 125	Fall
Winter	Art 13 Ed. 259 Ed. 210 Elective	Art 13 Ed. 210 Ed. 259 Hist. 126	Winter
Spring	Ed. 260 Elective (6 hours) Observ. 2 Psych. 108c	Ed. 260 Elective (8 hours) Psych. 108c	Spring
		Ed. 150 Elective Psych. 108c	
		Art 13 Ed. 210 Elective Hist. 125	
		Ed. 260 Elective. Hist. 126 Psych. 104	

FOURTH YEAR			
Sec. A	Sec. B	Sec. C	
Fall	Ed. 134 Electives or Minor Teaching 2	Ed. 134 Electives or Minor Observ. 2	Fall
Winter	Biot. 101 Electives or Minor Soc. 105	Biot. 101 Electives or Minor Teaching 2	Winter
Spring	Ed. 111 Electives or Minor Psych. 104	Ed. 111 Electives or Minor Psych. 104 Soc. 105	Spring
		Ed. 134 Ed. 258 Electives or Minor Soc. 105	
		Biot. 101 Ed. 259 Electives or Minor Observ. 2	
		Ed. 111 Electives or Minor Teaching 2	

\*See footnote on page 96.



INTERMEDIATE MAJORS—FOUR-YEAR CURRICULUM

		FIRST YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Winter	Civ'l. 1	Art 1		Civ'l. 1	Fall	
		Ed. 1	Eng. 1		Ed. 1		
		Hist. 10	Eng. 4		Eng. 0		
Winter	Spring	Phys. Ed.	Hyg. 1		Mus. 1b	Spring	
		Sci. 1	Mus. 25		Phys. Ed.		
			Phys. Ed.				
Spring	Fall	Art 1	Civ'l. 1		Art 2a	Fall	
		Ed. 4a	Elective		Elective		
		Eng. 1	Hist. 10		Eng. 4		
Fall	Winter	Mus. 25	Phys. Ed.		Hyg. 1	Winter	
		Phys. Ed.	Sci. 1		Phys. Ed.		
		Sci. 2					
Winter	Spring	Elective	Art 2a		Art 1	Spring	
		Hist. 13b	Ed. 1		Ed. 4a		
		Hyg. 1	Mus. 1b		Hist. 10		
Spring	Fall	Observ. 1	Phys. Ed.		Mus. 25	Fall	
		Phys. Ed.	Sci. 2		Phys. Ed.		
		Psych. 2a			Sci. 1		
		SECOND YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Winter	Art 2a	Ed. 4a		Ed. 10	Fall	
		Elective	Elective		Elem. Sci. 1		
		Phys. Ed.	Hist. 13b		Math. 10		
Winter	Spring	Fsych. 2b	Observ. 1		Phys. Ed.	Spring	
		Teaching 1	Phys. Ed.		Sci. 2		
			Psych. 2a				
Spring	Fall	Ed. 10	Elective		Eng. 1	Fall	
		Elective	Geog. 10		Elective		
		Geog. 10	Phys. Ed.		Hist. 13b		
Fall	Spring	Mus. 1b	Psych. 2b		Observ. 1	Spring	
		Phys. Ed.	Teaching 1		Phys. Ed.		
					Psych. 2a		
Spring	Fall	Elem. Sci. 1	Ed. 10		Elective	Fall	
		Geog. 11	Elem. Sci. 1		Geog. 10		
		Hist. 125	Geog. 11		Phys. Ed.		
Fall	Spring	Math. 10	Math. 10		Psych. 2b	Spring	
		Phys. Ed.	Phys. Ed.		Teaching 1		
		THIRD YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Winter	Ed. 150	Ed. 150		Ed. 150	Fall	
		Ed. 258	Ed. 258		Eng. 21		
		Electives	Eng. 22		Geog. 11		
Winter	Spring	Hist. 126	Hist. 125		Psych. 108c	Spring	
Spring	Fall	Art 14	Art 14		Art 14	Fall	
		Ed. 210	Ed. 210		Ed. 210		
		Ed. 259	Ed. 259		Eng. 22		
Fall	Spring	Eng. 21	Hist. 126		Hist. 125	Spring	
Spring	Fall	Ed. 260	Ed. 260		Electives	Fall	
		Eng. 22	Elective		Hist. 126		
		Observ. 2	Eng. 21		Psych. 104		
Fall	Spring	Psych. 108c	Psych. 108c			Spring	
		FOURTH YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Winter	Ed. 134	Ed. 134		Ed. 134	Fall	
		Electives	Electives		Ed. 258		
		Teaching 2	Observ. 2		Electives		
Winter	Spring		Eng. 22		Soc. 105	Spring	
Spring	Fall	Biot. 101	Biot. 101		Biot. 101	Fall	
		Electives	Electives		Ed. 259		
		Soc. 105	Teaching 2		Electives		
Fall	Spring				Observ. 2	Spring	
Spring	Fall	Ed. 111	Ed. 111		Ed. 111	Fall	
		Electives	Elective		Ed. 260		
		Psych. 104	Fsych. 104		Electives		
Fall	Spring		Soc. 105		Teaching 2	Spring	

†See footnote on page 96.

UPPER GRADE—JUNIOR HIGH SCHOOL CURRICULUM

		FIRST YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Fall	Civ'l. 1	Art 1		Civ'l. 1	Fall	Fall
		Ed. 1	Eng. 4		Ed. 1		
		Elective	Hyg. 1		Eng. 0		
Winter	Winter	Phys. Ed.	Mus. 25		Phys. Ed.	Winter	Winter
		Sci. 1	Phys. Ed.		Elective		
		Art 1	Elective				
Spring	Spring	Elective	Civ'l. 1		Ed. 113	Spring	Spring
		Mus. 25	Phys. Ed.		Eng. 4		
		Phys. Ed.	Sci. 1		Hyg. 1		
Spring	Spring	Sci. 2	Electives		Phys. Ed.	Spring	Spring
		Ed. 113	Ed. 1		Art 1		
		Elective	Phys. Ed.		Mus. 25		
Spring	Spring	Hyg. 1	Sci. 2		Phys. Ed.	Spring	Spring
		Observ. 1	Electives		Sci. 1		
		Psych. 2a			Electives		
Spring	Spring	Phys. Ed.				Spring	Spring

		SECOND YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Fall	Ed. 15	Ed. 110		Ed. 10	Fall	Fall
		Ed. 110	Electives		Elective		
		Elective	Observ. 1		Eng. 21		
Winter	Winter	Phys. Ed.	Phys. Ed.		Phys. Ed.	Winter	Winter
		Psych. 2b	Psych. 2a		Sci. 2		
		Teaching 1					
Spring	Spring	Ed. 10	Ed. 15		Ed. 110	Spring	Spring
		Electives	Phys. Ed.		Electives		
		Eng. 21	Psych. 2b		Eng. 22		
Spring	Spring	Phys. Ed.	Teaching 1		Observ. 1	Spring	Spring
		Electives	Electives		Phys. Ed.		
		Eng. 22			Psych. 2a		
Spring	Spring	Hist. 125	Ed. 10		Electives	Spring	Spring
		Phys. Ed.	Ed. 113		Phys. Ed.		
			Eng. 21		Psych. 2b		
Spring	Spring		Phys. Ed.		Teaching 1	Spring	Spring
			Electives				

		THIRD YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Fall	Electives and Minor	Electives and Minor		Electives and Minor	Fall	Fall
		Hist. 126	Eng. 22		Psych. 108c		
			Hist. 125				
Winter	Winter	Ed. 210	Ed. 210		Electives and Minor	Winter	Winter
		Electives and Minor	Electives and Minor		Hist. 125		
			Hist. 126				
Spring	Spring	Electives and Minor	Electives and Minor		Electives and Minor	Spring	Spring
		Observ. 2	Psych. 108c		Hist. 126		
		Psych. 108c					

		FOURTH YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Fall	Electives and Minor	Electives and Minor		Ed. 210	Fall	Fall
		Teaching 2	Observ. 2		Electives and Minor		
					Soc. 105		
Winter	Winter	Electives and Minor	Electives and Minor		Electives and Minor	Winter	Winter
		Soc. 105	Teaching 2		Observ. 2		
Spring	Spring	Ed. 111	Ed. 111		Ed. 111	Spring	Spring
		Electives and Minor	Electives and Minor		Electives and Minor		
			Soc. 105		Teaching 2		

\*\*See footnote on page 96.

RURAL CURRICULUM—FOUR YEARS

		FIRST YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Fall	Civ'l. 1	Art 1		Civ'l. 1	Fall	Fall
		Ed. 1	Eng. 1		Ed. 1		
		Hist. 10	Eng. 4		Eng. 0		
Winter	Winter	Phys. Ed.	Hyg. 1		Mus. 25	Winter	Winter
		Sci. 1	Mus. 25		Phys. Ed.		
			Phys. Ed.				
Spring	Spring	Art 1	Civ'l. 1		Ed. 21	Spring	Spring
		Ed. 4a	Ed. 23		Ed. 23		
		Ed. 21	Ed. 4a		Eng. 4		
Spring	Spring	Mus. 25	Phys. Ed.		Hyg. 1	Spring	Spring
		Phys. Ed.	Sci. 1		Phys. Ed.		
		Sci. 2					
Spring	Spring	Elective	Art 2a		Art 1	Spring	Spring
		Hist. 13b	Ed. 1		Ed. 4a		
		Hyg. 1	Mus. 25		Hist. 10		
Spring	Spring	Observ. 1	Phys. Ed.		Mus. 25	Spring	Spring
		Phys. Ed.	Sci. 2		Phys. Ed.		
		Psych. 2a			Sci. 1		

		SECOND YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Fall	Art 2a	Ed. 4a		Ed. 10	Fall	Fall
		Elem. Sci. 1	Elective		Eng. 21		
		Phys. Ed.	Hist. 13b		Math. 10		
Winter	Winter	Psych. 2b	Observ. 1		Phys. Ed.	Winter	Winter
		Teaching 1	Phys. Ed.		Sci. 2		
			Psych. 2a				
Spring	Spring	Ed. 10	Ed. 21		Elective	Spring	Spring
		Ed. 23	Geog. 10		Eng. 22		
		Eng. 21	Phys. Ed.		Hist. 13b		
Spring	Spring	Mus. 25	Psych. 2b		Observ. 1	Spring	Spring
		Phys. Ed.	Teaching 1		Phys. Ed.		
					Psych. 2a		
Spring	Spring	Eng. 22	Ed. 10		Elem. Sci. 1	Spring	Spring
		Geog. 10	Elem. Sci. 1		Geog. 10		
		Hist. 125	Eng. 21		Phys. Ed.		
Spring	Spring	Math. 10	Math. 10		Psych. 2b	Spring	Spring
		Phys. Ed.	Phys. Ed.		Teaching 1		

		THIRD YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Fall	Ed. 150	Ed. 150		Ed. 150	Fall	Fall
		Ed. 258	Ed. 258		Elective		
		Electives	Eng. 22		Geog. 11		
Winter	Winter	Hist. 126	Hist. 125		Psych. 108c	Winter	Winter
		Art 14	Ed. 210		Art 2a		
		Ed. 210	Geog. 11		Ed. 210		
Spring	Spring	Eng. 1	Hist. 10		Eng. 1	Spring	Spring
		Geog. 10	Hist. 126		Hist. 125		
Spring	Spring	Ed. 20	Ed. 20		Ed. 20	Spring	Spring
		Ed. 260	Ed. 260		Ed. 127		
		Electives	Elective		Electives		
Spring	Spring	Observ. 2	Psych. 108c		Hist. 126	Spring	Spring
		Psych. 108c					

		FOURTH YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Fall	Ed. 134	Ed. 134		Ed. 134	Fall	Fall
		Electives	Electives		Ed. 258		
		Teaching 2	Observ. 2		Electives		
Winter	Winter	Biot. 101	Art 14		Art 14	Winter	Winter
		Electives	Biot. 101		Biot. 101		
		Soc. 105	Ed. 259		Ed. 259		
Spring	Spring		Teaching 2		Elective	Spring	Spring
					Observ. 2		
Spring	Spring	Ed. 111	Ed. 111		Ed. 111	Spring	Spring
		Ed. 127	Ed. 127		Ed. 260		
		Electives	Elective		Electives		
Spring	Spring		Soc. 105		Teaching 2	Spring	Spring

††See footnote on page 96.

## EDUCATION

The two-year courses (junior college) outlined herewith are primarily intended for students who plan to teach in the kindergarten-primary, intermediate, rural, or upper grades. The senior college courses are primarily intended for experienced teachers who wish further training for teaching in the elementary grades or who wish to prepare themselves for supervisory work or for a principalship or superintendency. Inexperienced senior college students who wish administrative work ultimately are urged to prepare themselves for teaching some grade or subject. Students without experience completing the work in education for the upper grades and desirous of completing the four years bachelor's work for high school teaching are urged to select a major in subject matter for their third and fourth year work.

Two-year freshman students in education should note requirements for various elementary levels—kindergarten-primary, intermediate, rural, and upper grades—and advise either with the Director of Freshman Studies or the head of the Department of Education early in their first quarter as to choice of major.

Some courses are given that are basic to all students in a professional teacher-training institution. In the junior college two core subjects are required: Education 1 (to be taken in the freshman year), Introduction to Education, an orientation course designed to emphasize the technic of teaching and classroom management, and Education 10 (to be taken in the sophomore year), Problems of Education, a course designed to survey in a more critical way method and subject matter to be taught in the entire school system. Many other courses are specialized, as for example the methods courses for various levels of grade teaching, courses in administration, and courses upon special movements and technics such as individual instruction, platoon school organization, rural methods, or supervised study. All students should consult advisers when submitting programs concerning specialized course not required as core or departmental subjects.

---

\*Limited certificate students (two years) complete two-year course as prescribed. To obtain life certificate candidate must satisfy requirement in the third year outlined herewith. To secure the bachelor's degree, complete four-year requirements.

For one of six required quarters of active physical exercise take P. E. 11; for a second course, take P. E. 2; other four quarters of active physical education to be selected by student. Use electives to secure three subject minors of sixteen hours each but including core and departmental courses in the field.

†Limited certificate students (two years) complete two-year course prescribed. To obtain life certificate candidate must satisfy requirements in the third year. To secure the bachelor's degree, complete fourth year requirements.

For one of six required quarters of active physical exercise take P. E. 11; for a second quarter, take P. E. 5; other four quarters of active physical exercise to be selected by student. Use electives to secure three subject matter minors as suggested earlier.

\*\*In addition to the course herewith select two minors from the list suggested for upper grade majors and take at least four of the exact courses outlined in the first two years of each minor selected. Complete the remaining courses in the third year. Advise with head of the Education Department before beginning senior college major in Education.

For one of six required quarters of active physical exercise take P. E. 11; for a quarter, take P. E. 5; other four quarters to be selected by student.

††Limited certificate students (two years) complete two-year course as prescribed. To obtain life certificate candidate must satisfy requirements in the third year. To secure bachelor's degree, complete four-year requirements.

For one of six required quarters of active physical exercise take P. E. 11; for a second quarter, take P. E. 5; other four quarters of active physical exercise to be selected by student. Use electives to secure subject matter minors as suggested earlier.

## A FOUR-YEAR COURSE OF STUDY IN EDUCATION

Majors in Education are required to distribute their core subjects according to the diagrams on pages 92, 93, 94, 95. Their departmental subjects should be distributed according to the diagram in the first two years, but in the junior and senior years more liberty is allowed in making the distribution.

In addition to the core subjects listed on page 58, the following education courses are required of majors in this department:

Kindergarten-Primary—Ed. 3a, 3b, 3c, 134, 150, 210, 258, 259, 260.

Intermediate Majors—Ed. 4a, 134, 150, 210, 258, 259, 260.

Upper Grade-Junior High—Ed. 15, 110, 113, 210.

Rural—Ed. 4a, 4b, 20, 21, 23, 127, 134, 150, 210, 258, 259, 260.

Superintendents—Ed. 108, 116, 134, 142, 143, 144, 150, 210.

Elementary Principals and Supervisors—Ed. 108, 134, 142, 150, 210, 258, 259.

High School Principals—Ed. 108, 116, 134, 142, 150, 210, 216, 143.

Training Work in Teachers Colleges—Ed. 102a, 108, 150, 190, 192, 210, 258, 259, 260.

## COURSE OF STUDY

Students majoring in kindergarten-primary or intermediate or rural teaching should utilize electives designed in their four-year curriculum to complete at least three subject matters minors of at least sixteen hours each (cores and departmental courses to count) in (1) art; (2) music; (3) geography; (4) history; (5) English; (6) mathematics; and (7) science. For example, a minor in art could count Art 14 and the senior college art for eight hours of the sixteen required for this minor. Two more four hour courses would have to be taken.

Students majoring in the upper grades (two years) and junior high school (four years) should select two minors in subject matter as outlined herewith (p. 94), and take exact courses listed. For third and fourth year a subject matter major should probably be chosen, for example, history or industrial arts.

Senior college Education majors pursuing curricula outlined for administration or supervision are urged to use electives to obtain two subject matter minors of at least sixteen hours each (cores and departmental subject matter courses to count) in (1) English; (2) science; (3) foreign language; (4) mathematics; (5) social science; (6) industrial arts; or (7) commercial education.

(Subject matter minors for upper grades—Two to be selected)

Courses itemized below to be taken:

SOCIAL SCIENCE		SCIENCE	
Hist. 1	Pol. Sci. 1 or 2	Gen. Sci. 1 (Soph. yr.)	Phys. 4
Hist. 2	Geog. 15	Gen. Sci. 2 (Soph. yr.)	Zool. 4 hrs. elective
Hist. 5	Soc. 150	Chem. 8	Bot. 4 hrs. elective
ENGLISH		MATHEMATICS	
Eng. 22	Eng. 2	Math. 10	Math. 111
(per 15)	Eng. 12	Math. 107 (Soph. yr.)	
Eng. 11	Eng. 20	Electives, 12 hrs. in Math.	
Eng. 16 or 112			
ART		HOME ECONOMICS	
Art 17	Art 4b	H. E. 4	H. E. 10
Art 14	Art 4a or 16	H. E. 5	H. E. 112
Art 3	Art 7	H. E. 7	H. Econ. 101

**MUSIC**

Music 1b	Music 11	Ind. Ed. 1	Ind. Ed. 5
Music 1c	Music 20	Ind. Ed. 2	Ind. Ed. 10
Music 10	Music 21	Ind. Ed. 8a	Ind. Ed. 12

**INDUSTRIAL ARTS****COMMERCIAL EDUCATION**

(Take a and one of b, or c, or d.)

- |                          |                             |
|--------------------------|-----------------------------|
| a. Typewriting           | c. Junior Business Training |
| C. E. 11, 12, 13, and 14 | Com. Ed. 37, 41, and 150    |
| b. Shorthand             | d. Bookkeeping              |
| C. E. 1, 2, 3, and 4     | Com. Ed. 150, 151, 152, 157 |

**SENIOR COLLEGE PROFESSIONAL COURSES**For Superintendents  
(All in senior college)

Ed. 142	Ed. 108	Biot. 101
Ed. 143	Ed. 116 or 213	Ed. 150
Ed. 144	Ed. 210	Ed. 134

(Two subject matter minors of sixteen hours each in any of the following: English, science, foreign language, mathematics, social science, industrial arts, or commercial education.)

**For Elementary Principalship and Supervision**

Ed. 258	Ed. 108	Ed. 134
Ed. 259	Ed. 210	Biot. 101
Ed. 142	Ed. 150	Psych. 104

(Two subject matter minors of sixteen hours each in any of the following: English, science, foreign language, mathematics, social science, industrial arts, or commercial education.)

**For High School Principalship**

Ed. 116	Ed. 108	Ed. 134
Ed. 216 or 143	Ed. 210	Biot. 101
Ed. 142	Ed. 150	Psych. 105

(Two subject matter minors of sixteen hours each in any of the following: English, science, foreign language, mathematics, social science, industrial arts, or commercial education.)

**For Training School Work and Teachers of Education and Psychology in Teachers Colleges**

Ed. 258	Ed. 108	Ed. 150	Ed. 103
Ed. 259	Ed. 210	Ed. 190	Psych. 104
Ed. 260		Ed. 192	Biot. 101

(Three minors of sixteen hours each in any three of the following: art, music, geography, English, science, history.)

**I. COURSES PRIMARILY FOR JUNIOR COLLEGE STUDENTS****\*1. INTRODUCTION TO EDUCATION—Every quarter. Four hours.**

Required of all first-year students.

This course aims to introduce the student to the study of education or to orient the student in the field of teaching and to prepare him for more specialized study to come later. Among the topics to be discussed are the following: professional opportunities in teaching; historical background of education; the present program of education; needs of education today; purposes of public education; where education takes place; how education takes place; administrative background for teachers; the facts on pupils' health, instincts, laws of learning; individual differences, measurement; the teacher and the community; and professional preparation of teachers.

\*Given also by extension.

**2a. PRE-TEACHING OBSERVATION IN THE ELEMENTARY SCHOOL—Every quarter. Two hours.**

This course consists of four regularly scheduled observation and discussion periods a week. A part of these periods is spent in large group observation and discussion work in which the students observe work in all the grades of the school level in which they are majoring. These observations and discussions deal with the major types of subject matter presentation. The remainder of the observation work is spent by the students in observing the work in the particular grade in which they are to do student teaching. This quarter of pre-teaching observation gives the student an opportunity to gain an insight into the technic of teaching and the mechanics of classroom management and a knowledge of the complete sequence of the subject matter of which he will teach only a part. Related readings and references in both content and method are required in this course. A student making a grade of less than "C" shall repeat the course.

**2b. STUDENT TEACHING IN THE ELEMENTARY AND JUNIOR HIGH SCHOOL—Every quarter. Four hours.**

Required of all junior college students. A full quarter of teaching carries four hours credit, meeting five days a week with two monthly group conferences on the first and fourth Tuesdays. Each student making a grade of less than "C" shall be required to repeat this course. As prerequisites to student teaching (Ed. 2b) each student must make at least a grade of "C" in observation (Ed. 2a), pass satisfactorily an achievement test, Ed. 1, and the methods courses in his major department. An additional quarter may be taken as 2d.

**2c. PRE-TEACHING OBSERVATION IN THE SECONDARY SCHOOL—Every quarter. Two hours.**

This course is the observation course in the junior and senior high school (grades 7-9). This course is preparatory to and should next precede the quarter of student teaching. Of the four regularly scheduled weekly meetings two shall be under the direction of the principal of the secondary school and the remaining two under the direction of the training teacher under whose supervision the student is to teach the following quarter. The general phase of the course under the direction of the principal, designed to give the student an opportunity to become acquainted with principles of teaching in the junior high school, general technic, mechanics of classroom management, etc., will include directed observation as well as regular class work. The specific phase of the course under the direction of the training teacher has as its purpose the preparation of the student to do a specific piece of work in a certain grade and subject and will consist of directed observations and conferences. A student making a grade of less than "C" shall repeat this course.

**\*3a. LANGUAGE ARTS IN PRIMARY GRADES—Every quarter. Four hours.**

Prerequisite, Ed. 1.

This is a course dealing with materials and methods of teaching language, reading, and spelling in the primary grades. Emphasis will be placed upon reading readiness; types of silent and oral reading; standard and informal testing and suitable remedial measures for the primary grades. Also, oral and written English as an outgrowth of children's interest in their own experience and activities and materials and methods of spelling in relation to child needs. Demonstration lessons illustrating the application of method to these phases of primary school work are a part of the course.

**3b. SOCIAL ARTS IN PRIMARY METHODS—Every quarter. Four hours.**

Prerequisite, Ed. 1.

This course attempts to show modern trends in the teaching of numbers in the primary grades. Number concepts as growing out of the child's experiences, materials, methods of teaching, standardized and informal tests, remedial work, textbooks, and various courses of study are discussed. Interrelationship of the work of these grades is evident through the social sciences which is centered in the various phases of home life, utilization of immediate environment of the child, growth in citizenship through purposeful activities, and interests which have social value and lead into basic social learning. Demonstration lessons illustrating the application of method to these phases of primary school work are a part of the course.

**\*3c. KINDERGARTEN-PRIMARY MATERIALS—Every quarter. Four hours.**

A course in kindergarten-primary methods. The course includes: the furnishing and equipping of kindergarten and primary rooms; a survey of the work of the unified kindergarten-primary grades, including a study of types of literature suitable for young children, principles of selection of material, suggestions concerning the conducting of the literature hour, and types of returns which may be expected from children; plays and games, including a study of the significance of play in the life of the child, types

\*Given also by extension.

of plays and games suitable for young children with principles of selection, suggestions concerning the conducting and guiding of the play period, and the educational and social value of plays and games. Demonstration lessons illustrating the application of method to these phases of primary school work are a part of the course.

**Ed. 4a. LANGUAGE ARTS IN THE INTERMEDIATE GRADES—Every quarter. Four hours.**

Prerequisite, Ed. 1.

Reading deals with the objectives of reading instruction, the relationship of reading to progress in other school subjects, the methods of developing habits, attitudes, and skills relating to work-type and recreatory reading, and the methods of developing permanent interests in reading.

Spelling deals with the objectives of spelling instruction and the methods of teaching spelling.

Composition deals with both the oral and written phases of language skills. Attention is given to the fundamental purpose in teaching composition and to the educational principles which must be employed in realizing this purpose. Study is made of those schoolroom activities which offer opportunities for growth in the language skills. The levels of achievement for the different intermediate grades are studied. Textbooks in composition and language and their use in accomplishing these aims are discussed.

The relationship is shown of handwriting to other schoolroom activities. The methods of improving handwriting, the uses of handwriting charts, and means of correlating handwriting with the other classroom subjects are studied.

Observation lessons of each phase of the work are a part of the course.

**5. PRINCIPLES OF TEACHING—(Now a part of Ed. 1)—Summer quarter. Two hours.**

This course deals with fundamental principles and methods of teaching in the elementary grades. It attempts to show how efficiency and economy in instruction may be attained by adapting instruction to contemporary social needs and through the application of the principles of psychology and scientific business management to teaching. Emphasis is placed upon the specific application of the principles and methods presented.

**\*10. PROBLEMS OF EDUCATION—Every quarter. Four hours.**

Prerequisite, Ed. 1 and Sophomore standing.

This is a more advanced (sophomore) course in education for all junior college students. It is designed to acquaint the student with present-day problems concerning what and how to teach in the school. The course covers: methods of study; general principles of teaching and management; technics of discipline; what the school teaches and might teach; educational values and criteria; theory and practice in organizing (a) tool subjects, (b) the major classes of activities; and adaptation of subject matter to the community and pupil.

**\*15. EDUCATIONAL AND VOCATIONAL GUIDANCE—Fall, winter, and summer quarters. Two hours.**

This course aims to acquaint the student with the various agencies and methods for guiding pupils in their school work and in regard to the choosing and preparation for a vocation. The course deals with the proper educational guidance of pupils for a long period preceding their choice of a vocation and their proper vocational direction toward the end of their school periods. This includes a study of individual capacities and personal factors, the exploration of special interests and abilities, the organization of a guidance program in studies, health building and character building activities, civic training, the imparting of vocational information, and guidance in making vocational choices.

**16. ELEMENTARY TRAINING COURSE FOR CAMP FIRE GIRLS LEADERSHIP—Every quarter. Two hours.**

This course is a training for community leadership in leisure time program for girls. It includes lectures and demonstrations covering projects in the seven crafts of Camp Fire, motion songs, symbolism, organization, planning of programs, out-of-doors activities, and so on. The course leads to the national elementary certificate for leadership in Camp Fire girls' work.

**ED. 16. TRAINING COURSE FOR CAMP FIRE GIRLS' LEADERSHIP—Every quarter. Two hours.**

This course is a training for leadership in leisure time programs for girls. It includes lectures and practical demonstrations in leadership, fundamental studies of the girl, projects in the seven crafts of Camp Fire, symbolism, motion songs, hiking camping, first-aid, council fires, organi-

\*Given also by extension.



zation, program planning, and so on. The course leads to the national certificate for leadership in Camp Fire girls' work.

17. **BOY SCOUT WORK**—Summer quarter. Two hours.

\*20. **ELEMENTARY RURAL SCHOOL AGRICULTURE**—Spring and summer quarters. Four hours.

This course considers the place of agriculture in rural elementary education. It considers the objectives concerned with an appreciation of agriculture as a mode of living, not merely as a means of making a living, involving an introduction to knowledge of plant and animal types, methods of attack in solving agricultural problems guided by the fundamental principles and purposes of elementary education. It deals with the methods and materials to be used in rural activities.

\*21. **RURAL SCHOOL PROBLEMS**—Winter and summer quarters. Four hours.

This course contributes directly and genuinely to the practice of those who work in rural and village schools. Many of the common everyday problems of the rural teacher are considered and solutions offered as a guide to action in many new and difficult situations which confront the young and beginning teachers of the rural schools.

\*23. **RURAL SCHOOL MANAGEMENT**—Winter and summer quarters. Four hours.

This course deals with the teaching of the common school subjects under conditions usually met by the rural teacher in the one, two, and three-teacher schools. It aims to present the basic principles of learning and the approved methods of presentation for each subject. The subjects are considered separately, principles and methods for each subject being illustrated by concrete examples. The latest results of educational research in methods and subject matter are adapted to meet the peculiar conditions of the small rural school.

24. **RURAL LIFE PROBLEMS IN EDUCATION**—Spring and summer quarters. Four hours.

This course deals with some of the most fundamental aspects of rural community life in terms of rural education and rural schools. It considers the two-fold function of the public school in the rural community—to teach people to live and to make a living, and to train a new generation, clear-seeing and able to solve its own problems.

\*28. **SCHOOL AND HOME GARDENS**—Spring and summer quarters. Four hours.

This course considers the fundamentals of plant culture together with definite instructions in selection, propagation, growing, and care of plants commonly grown in the schoolroom, the home, the yard, and the garden. This is not a course in truck gardening. The dominant aim of the course is to train teachers to be able, through the school, to train a generation of people in the knowledge and appreciation of the things which make their surroundings more beautiful and more pleasant to live in. Laboratory practice is provided in the spring quarter through the Training School gardens.

\*52. **KINDERGARTEN MATERIALS**—now combined with Ed. 3c.

## II. COURSES PRIMARILY FOR SENIOR COLLEGE STUDENTS

100a. **PROBLEMS OF EDUCATION**—Summer quarter. Two hours.

This course attempts to bring to interested students the results of research concerning current educational problems. A survey course with a different lecturer daily or weekly, representing major fields of knowledge.

100d. **UNIT COURSES IN CREATIVE EDUCATION**—Summer quarter. One hour.

Units numbered differently for each summer.

100e. **UNIT COURSES IN EDUCATION FOR COUNTY SUPERINTENDENTS**—Summer quarter. One hour.

Units numbered differently each summer.

100f. **UNIT COURSES IN PARENT-TEACHER EDUCATION**—Summer quarter. One hour.

\*Given also by extension.

**\*101. PRINCIPLES OF HIGH SCHOOL TEACHING—Winter and summer quarters. Two hours.**

This course is designed to develop those principles of teaching and features of methodology which are particularly applicable to high school teaching. Some of the topics to be considered are: characteristics of adolescence; types of disciplinary control; economical classroom management; types of instruction; lesson planning; and supervised study.

**102. ADVANCED STUDENT TEACHING IN THE ELEMENTARY TRAINING SCHOOL—Every quarter. Four hours.**

An additional quarter may be taken as 102d.

**102a. STUDENT SUPERVISION IN ELEMENTARY TRAINING SCHOOL—Every quarter. Four hours.**

**103. STUDENT TEACHING IN THE SECONDARY TRAINING SCHOOL—Every quarter. Four hours.**

An additional quarter may be taken as 103d.

This course will include conferences, observation, supervision, and teaching under the direction of the training teacher.

**103a. STUDENT SUPERVISION IN THE SECONDARY TRAINING SCHOOL—Every quarter. Four hours.**

**104. THE PROJECT METHOD OF TEACHING—Summer quarter. Two hours.**

The purpose of this course is to study and define the project and project method from a critical point of view and to discuss the reorganization of the curriculum on the project basis. A study and criticism of current definitions of a project will be made as well as the historical development of the project method.

**105. PRACTICAL SUBJECTS IN THE PRIMARY GRADES—Summer quarter. Two hours.**

A study is made of the activity curriculum as set forth in progressive primary schools where the traditional curriculum is being modified by activities of the problem-solving or project type. Attention is given to some specimen enterprises of school children and how to judge their worth. Some consideration is given to the organization of the project with regard to curriculum content, learning materials, and methods.

**\*106. ELEMENTARY TYPES OF TEACHING—Summer quarter. Two or four hours.**

An analysis of the less familiar types of teaching and learning; learning to understand social life; learning to be skillful in problem solving, silent reading, communicating ideas; learning to enjoy leisure time; learning to behave morally.

**107. METHODS OF IMPROVING READING AND STUDY HABITS OF ELEMENTARY SCHOOL CHILDREN—Summer quarter. Four hours.**

In this course a study will be made of silent reading habits and abilities in their relationship to efficient performance in the elementary school subjects. Particular emphasis will be placed upon the methods of forming those habits in silent reading which are fundamental in independent or supervised study. The following problems will be discussed; the mechanics of reading and the work of the eye in reading; measurement of silent reading ability; factors affecting silent reading ability; the treatment of cases of retardation due to poor study and silent reading habits.

**108. EDUCATIONAL SUPERVISION—Winter and summer quarters. Four hours.**

This course will discuss: meaning and purpose of supervision and what the supervisor needs to know—subjects to be taught, grade placement, methods of testing accomplishment; tools of supervision—supervisory surveys, bulletins, demonstration lessons, and conferences, classroom visitations; gathering facts on children and their use in the improvement of instruction.

**\*108c. SUPERVISION OF EDUCATIONAL VALUES—(Given by Extension only.) Two hours.**

\*Given also by extension.

**\*109a. SUPERVISED STUDY IN THE ELEMENTARY SCHOOL—(Given by Extension only.) Three hours.**

This course deals with the principles and methods of supervised or directed study as applied to the elementary school. The various conceptions of supervised study and plans of organization and administration in carrying out a program of directed study in school are presented. The course is intended to develop ways and means of enriching the child's school life through proper direction of his efforts.

**\*109b. SUPERVISED STUDY IN THE HIGH SCHOOL—(Given by Extension only.) Three hours.**

The aim of this course is to provide experience in the various conceptions of supervised or directed study as applied to the secondary school. Principles, methods, and schemes of organization and administration are presented and applied to the teaching of the various high school subjects. It is intended to facilitate high school teaching through providing for ways and means of properly directing the efforts of the students in study.

**\*110. EXTRA-CURRICULAR ACTIVITIES—Fall, winter, and summer quarters. Two hours.**

This course will discuss school councils and government, athletics, debating, literary and social clubs, the school newspaper and magazine, musical and dramatic activities, and civic clubs and projects that relate to pupil participation. It will consider the purposes and values of such activities in forming proper habits, attitudes, and ideals, and will attempt to show wherein such activities are necessary and a valuable part of the school curriculum. An evaluation of the movement will be made.

**110a. CITIZENSHIP EDUCATION IN THE JUNIOR HIGH SCHOOL—Summer quarter. Two hours.**

**110b. CITIZENSHIP EDUCATION IN THE GRADES—Summer quarter. Two hours.**

**\*110c. CITIZENSHIP EDUCATION IN THE SCHOOLS—(Given by Extension only.) Three hours.**

This course is given in the Extension Department as a combination of Ed. 110a and Ed 110b.

**\*110f. SUPERVISION OF CURRICULUM MAKING—(Given by Extension only.) Three hours.**

**\*111. HISTORY AND PHILOSOPHY OF EDUCATION—Spring and summer quarters. Four hours.**

Open only to senior college and graduate students.

The first part of this course presents an outline of the great educational movements which have been developed by the process of civilization and attempts to show how the educational ideals which were approximated in one age descended to the next and were enlarged by experience and wisdom. The evolution of these educational ideals are presented in connection with the great personalities which made them possible.

Having presented in the first part of this course the historical development and evolution of the general theory of education, the second part deals with the philosophy of education as a method of analyzing such problems as the meaning of education, educational aims and values, education and democracy, the development of ideals, the nature of thinking, the nature of method and of subject matter.

The course is designed to show that education is a process of forming one's fundamental dispositions toward mankind, a process by which an individual grows through gaining new meanings in his environment, a process by which social groups maintain their continuous existence, and how the degree of civilization sets the standard for the educational ideal which in turn becomes a motive for social progress and a measure of its change.

**112. SCHOOLHOUSE CONSTRUCTION—(Now a part of Ed. 142-143).**

**\*113. ORGANIZATION AND ADMINISTRATION OF A JUNIOR HIGH SCHOOL—Winter, spring, and summer quarters. Four hours.**

Primarily for upper grade majors. Senior college and graduate students take Ed. 213. Prerequisite, Ed. 1.

This course will deal with the junior high school from the standpoint of organization, programs, teaching, course of study, social life, athletics, and all general problems arising in administering a junior high school.

\*Given also by extension.

114. PRIMARY SUPERVISION—Spring and summer quarters. Four hours.

Prerequisites, Ed. 3a and 3b.

This course is intended for supervisors and advanced students in primary work. It includes a brief survey of the objectives of primary work, purposes, and principles underlying supervision, technic of supervision, observation and analysis of lessons, materials of instruction, assigned readings, and discussion of the modern trends in the primary field.

115. ORGANIZATION AND ADMINISTRATION OF THE ELEMENTARY SCHOOL—Summer quarter. Two hours.

This course will deal with the elementary school from the standpoint of organization, programs, teaching, course of study, social life, athletics, and all general problems arising in the administering of an elementary school.

\*116. ORGANIZATION AND ADMINISTRATION OF A SENIOR HIGH SCHOOL—Fall, winter, and summer quarters. Four hours.

General principles of organization and administration of the high school with special emphasis on the teacher's responsibilities and relationships. The course contains discussions of the function of secondary education; problems of personnel, including the principalship and teaching staff, salaries, tenure, teaching load, professional improvement; composition, control, and guidance of the student body; the secondary school curriculum; departmental organization and supervision; methods of instruction; the daily program; unit costs, control of student finances; records and reports.

117. PROBLEMS IN SCHOOL DISCIPLINE—Summer quarter. Two hours.

This course is based on actual problems that have been met in the schoolroom. A comparison of the old and new ideas of discipline, kinds of offenses committed, causes for offenses or misconduct, kinds of punishments or corrective measures, difficult disciplinary cases successfully handled, the teacher's responsibility, legal aspects of discipline, and general theories and principles of discipline are the phases of the course discussed.

\*118. PROBLEMS IN CHARACTER AND MORAL EDUCATION—Summer quarter. Two hours.

This course is planned to give the teacher a practical method of attacking this problem in the schoolroom. It is not a course in ethics for teachers. Actual moral situations from twenty school systems are the basis for the conclusions and recommendations made. This course attempts to equip the teacher with the necessary facts in order to present the leading problems and phases of moral or character education.

120. EDUCATIONAL FINANCE—(Now a part of Ed. 142-143).

123. EDUCATIONAL RESEARCH FOR SENIOR COLLEGE STUDENTS—Every quarter. Four hours.

Registration for this course permitted only after conference with the head of the department. This course is a seminar or conference course for qualified senior college students. Students with definite problems will carry on research under the direction of the instructor in whose field the problem lies.

125. MODERN TRENDS IN RURAL SCHOOL EDUCATION—Winter and summer quarters. Four hours.

This course considers the problems that grow out of the demands made upon the rural school and attempts an interpretation of the means and methods which the solution of these problems requires.

127. SPECIAL RURAL SCHOOL METHODS—Fall and summer quarters. Four hours.

This course aims to acquaint the student with a few of the outstanding experiments that have been made in recent years which deal with special methods of adapting the rural elementary school program to the needs of rural schools.

128. COUNTY ADMINISTRATION—Summer quarter. Two hours.

This course deals with the problems of rural education from the supervisory point of view of county superintendents. It deals with the relations of county superintendents to teachers of rural schools.

\*Given also by extension.

\*129. CURRENT EDUCATIONAL THOUGHT (Formerly Ed. 229)—Summer quarter. Two or four hours.

This course will consist of reviews and discussions of recent books and magazines in the light of the more important modern movements in each of the major fields of education.

130. VISUAL AIDS IN EDUCATION—Summer quarter. Two hours.

The purpose of this course is to show some of the more important phases of visual aids in education. Some of the questions discussed are: (1) What is the meaning of visual education? (2) How can I best inform myself on the subject of visual aids? (3) What are the different types of visual aids and what is their comparative effectiveness? (4) How have the administration problems been solved? (5) What has been accomplished in the field and by whom? In addition, the use of the different types of visual aids will be illustrated and discussed. The course should be valuable to teachers and administrators alike.

\*133. HISTORY OF EDUCATION WITH SPECIAL REFERENCE TO MODERN TIMES—Summer quarter. Two or four hours.

This course will be a general survey of the history of education. After a brief study of the contributions of the Greeks, the Romans, and the medieval church, the following topics will be discussed and evaluated in terms of their influence upon modern times: the Renaissance, the Reformation, the rise of science, the development of vernacular schools, the influence of the educational reformers—Comenius, Rousseau, Pestalozzi, Herbart, Froebel, and Dewey—upon recent educational theory and practice. Finally, a comparative study of the educational systems of the chief countries of the world will be made.

\*134. HISTORY OF EDUCATION IN THE UNITED STATES—Fall and summer quarters. Four hours.

Beginning with a brief treatment of the Old World background, the course will trace the development of free public education in America up to the present time. Special emphasis will be given to a consideration of how the school subjects came to be what they are, the development of methods of teaching in terms of children's interests and capacities, and the influence of recent educational tendencies, such as the widened concept of citizenship training, the scientific study of education, and the economy of time movement. Contemporary educational problems will be used as the basis of explaining the educational and cultural history of the United States.

136. COMPARATIVE EDUCATION—Summer quarter. Two hours.

139. RECENT EDUCATIONAL DEVELOPMENTS—Summer quarter. Two hours.

140. GUIDANCE PROBLEMS OF DEANS OF GIRLS—Spring and summer quarters. Two hours.

This course will deal with the activities of girls' advisers in high school and is designed to equip teachers to assume such responsibilities.

141. ADMINISTRATION FOR TEACHERS—Summer quarter. Two hours.

This course is especially designed for content majors (in English, science, etc.) interested in equipping themselves for administrative duties in town and consolidated schools. It is particularly needed by young men majoring in a content field with little or no experience who accept teaching positions and the superintendency or principalship of the district.

142. SCHOOL ADMINISTRATION, ELEMENTARY—Fall and summer quarters. Four hours.

A first course for school administrators. The course contains discussions of the philosophy of educational administration, relation of the federal government to public schools, function of the state in supporting and controlling schools, school organization—federal, state, county, local; the election, organization, and function of boards of education; the selection, qualifications, duties of the superintendent; responsibilities of other administrative officers; qualifications, salaries, selection, promotion, and tenure of teachers; organization of special departments; building management; school finance.

143. SCHOOL ADMINISTRATION, ADVANCED—Winter and summer quarters. Four hours.

Second course in administration. Sources of school funds; classification of expenditures; unit costs; budget making; bonds and bond issues; control of school finances; continuous school surveys, their meaning, func-

\*Given also by extension.

77058

tion, and various technics; selection of school sites; planning buildings; size, shape, ventilation, and lighting of classrooms, corridors, gymnasiums, auditoriums, offices, and laboratories.

144. SCHOOL PUBLICITY—Winter and summer quarters. Two hours.

This course will study such problems as school papers, bulletins, house organs, and publications for patrons. How to get material ready for the newspapers and how to handle such community projects as clean-up week, American education week, know-your-schools week, music week, bond elections, parent-teachers associations, and other community enterprises will be a part of this course. Given by the Department of Education and the Department of English jointly.

145. PLATOON SCHOOL ORGANIZATION—Summer quarter.

147. EDUCATIONAL SURVEYS—(Now a part of Ed. 142-143.) Summer quarter. Two hours.

148. PROBLEMS OF INDIVIDUAL INSTRUCTION—Summer quarter. Two hours.

150. FOUNDATIONS OF METHOD—Fall and summer quarters. Four hours.

The aim of this course is to make an analysis of the principles on which method in general may be founded. An analysis of method is made to show that it is sound just to the extent that it utilizes the laws of learning. An attempt is made to unify our scattered notions about learning and teaching to see that they are based upon a sound educational psychology and philosophy.

151. THE PRE-SCHOOL—Winter and summer quarters. Four hours.

This course includes a study of the physical and mental growth of the child from two to four years of age. When possible, each student will make a careful observation of the development and personality of several children. The history and growth of the pre-school movement will be followed through the reading of recent educational publications.

152. THE CHILD AND HIS SCHOOL—Fall and summer quarters. Four hours.

An interpretation of elementary education as a social process in which the child is the major factor. A study of the principles underlying the education of elementary school children.

154. RECENT INVESTIGATIONS IN ELEMENTARY EDUCATION—Summer quarter. (Not given 1929.)

155. RECENT INVESTIGATIONS IN KINDERGARTEN EDUCATION—Summer quarter. Four hours.

This course deals with scientific studies of the social and learning needs of kindergarten and pre-school pupils.

168. CURRENT PROBLEMS IN THE TEACHING OF RELIGION—Winter and summer quarters. Two hours.

This course is a study of the problem of teaching religion in the light of present day conditions affecting the religious life of children and methods of meeting these changed conditions.

169. THE TEACHING VALUES OF THE BIBLE—Spring and summer quarters. Two hours.

Biblical material will be considered in relation to the needs and interests of children and young people. Ways of presenting this material will also be considered.

190. THE ADMINISTRATION OF NORMAL SCHOOLS AND TEACHERS COLLEGES—Winter and summer quarters. Two hours.

This course is for students interested in positions in normal schools and teachers colleges. The course will deal with general administration and control; executive officers and their duties; the teaching staff and their qualifications and duties; selection, admission, and supervision and control of students; records and reports; placement; finance in teachers colleges, budgets, costs, sources of revenue; curriculum; educational research and relation to other educational institutions.

\*191. PROFESSIONAL EDUCATION OF TEACHERS—(Given by Extension only.) Three hours.

**192. TRAINING SCHOOL PROBLEMS IN THE PROFESSIONAL EDUCATION OF TEACHERS**—Winter and summer quarters. Two hours.

The following topics are treated: the relation of theory and practice in the training of teachers; an activity analysis of student teaching; the present status of student teaching in teachers colleges; observation as a factor in student teaching; methods of improving student teaching; the organization and administration of student teaching; the preparation of training teachers; the results of student teaching on the pupils taught.

**194. THE JUNIOR COLLEGE**—Summer quarter. Two hours.

This course deals with the development and organization of the junior college.

**III. COURSES FOR GRADUATE STUDENTS AND QUALIFIED SENIOR COLLEGE STUDENTS WITH CONSENT OF THE INSTRUCTOR**

(Junior college students may NOT register for these courses.)

**208.—SEMINAR IN EDUCATIONAL VALUES**—Fall quarter. (Not given 1929-30.) Four hours.

May be repeated as Ed. 209 for four additional hours.

This course will discuss the various values of education. Criteria for the inclusion of activities and materials of education will be suggested, and subject matter evaluated in terms of its functions and values in helping pupils engage efficiently in life's activities.

**\*210. PROBLEMS OF THE SCHOOL CURRICULUM**—Winter and summer quarters. Four hours.

Substituted for Ed. 10 for senior college students.

This course is an advanced course in curriculum construction. It will deal with the sources of curriculum materials and with methods of investigation and evaluation of school courses in terms of impersonal or objective standards. Each student will be required to make a study or investigation of some aspect of the curriculum in order that he may more thoroughly understand the technic of curriculum construction.

**211. CONCEPTION OF MIND IN EDUCATIONAL THEORY**—Winter quarter. (Not given 1929-30.) Four hours.

This course will study the doctrines of mind that have exercised a determining influence upon educational theory, method, and practice. It will attempt to show that our conception of the nature of the mind determines in part the aims of education; furthermore, it will trace the historical development of the three major conceptions of mind and the relation of each to the aims of education. The status of intelligence and its influence on theory and practice will be discussed, and the difference between mechanical and intelligent behavior will be pointed out, as well as the implications for education.

**213. PROBLEMS OF THE JUNIOR HIGH SCHOOL, WITH SPECIAL REFERENCE TO THE CURRICULUM**—Spring and summer quarters. Two or four hours.

Given successive summers as 213, 214, and 215. Students may earn up to twelve hours.

This course will attempt to offer practical suggestions for the reorganization of the junior high school grades. The following problems, with the possible solutions based upon sound educational theory, practice, and scientific method, will be discussed: how to relate and integrate the program of the junior high school with that of the elementary and senior high schools; economy of time and learning; enrichment of the curriculum; and how to organize junior high schools for effective training in citizenship. The Rugg-Schweppe program, as embodied in "The Social Science Pamphlets," will be presented and applications of their experimental curriculum procedure will be made to other subjects of the junior high school.

**216. PROBLEMS OF SECONDARY EDUCATION**—Fall and summer quarters. Four hours.

Given successive summers as 216, 217, and 218. Students may earn up to twelve hours.

This course is intended for graduate and advanced undergraduate students who are interested in intensive study of significant and fundamental problems in the field of secondary education. These problems will include organizing programs of study, administering student activities, financing

\*Given also by extension.

student activities, organizing curriculum materials, planning teachers' meetings, and others related to secondary education. Intensive study and investigation will be organized along the lines of individual interest.

219. PROBLEMS OF STUDY AND DISCIPLINE—Spring and summer quarters. Four hours.

This course will deal in an advanced way with specialized technics of classroom organization, management, and control. It will discuss objective studies of discipline, character education study, and method. The case approach will be used as much as possible.

223. RESEARCH IN EDUCATION—Every quarter. Four hours.

To be taken in first quarter of graduate work.

This course is a required seminar and conference course for graduate students in all departments who are working on their masters' theses. The director of educational research will meet the graduate thesis seminar three times each week and will confer with individual students upon appointment when necessary. In seminar the proper technic to be used in educational investigations and allied topics is considered, and opportunity is given each student to report upon and discuss the details of his study.

224. RESEARCH IN EDUCATION—Every quarter. Four hours.

This is the thesis course for masters candidates in Education in their second quarter of graduate work. Open for field studies for other qualified graduate students with the consent of the head of the department.

225. RESEARCH IN EDUCATION—Every quarter. Two hours.

This is the thesis course for masters candidates in Education in their third quarter of graduate work. Open for field studies for other qualified graduate students with the consent of the head of the department.

230. A HISTORY OF PHILOSOPHY—Winter and summer quarters. Four hours.

This course presents a study of three great schools of thought—naturalism, idealism, and pragmatism. Particular emphasis is placed upon the educational implications and significance of these three schools of philosophy.

As representative of naturalism a brief study is made of Bacon and Spencer; among the idealists, Socrates, Plato, Aristotle, Rousseau, Kant, Fichte, Pestalozzi, Froebel, Hegel, Royce, and Gentile; among the pragmatists, James, Dewey, and Bode.

240. WOMEN IN ADMINISTRATION—Summer quarter. Four hours.

242. PROBLEMS IN EDUCATIONAL ADMINISTRATION—Spring and summer quarters. Four hours.

Organization and administration of a school system. The superintendent's functions and relationship to the public, the board of education, teachers, and students; departmental organization; functions of the board of education; rules and regulations; management of board meetings; the school calendar; the minute book.

243. PROBLEMS IN EDUCATIONAL ADMINISTRATION—Summer quarter. Four hours.

Business administration; organization for fiscal control; office practice; school funds and school indebtedness; the budget, its preparation and use; cost accounting, audit, payrolls, and reports.

244. PROBLEMS IN EDUCATIONAL ADMINISTRATION—Summer quarter. Four hours.

Personnel management. Qualifications, tenure, salaries, and promotion of teachers and their training while in service; duties and responsibilities of principals, assistant superintendents, and supervisors; leaves of absence; teachers' meetings; teacher load and contracts.

258. PROBLEMS OF ELEMENTARY EDUCATION—First Course (Spelling and Reading)—Fall and summer quarters. Four hours.

This is a course in the supervision of spelling and reading in the elementary school. It is intended to serve experienced teachers, principals, supervisors, and superintendents. In the light of the results of research the following items will be considered: (1) Selection of the content of the course of study; (2) determination of grade-placement; (3) selection of efficient methods of teaching and materials of instruction; and (4) selection of procedures in measuring pupil accomplishment.



259. PROBLEMS OF ELEMENTARY EDUCATION—Second Course (Content Subjects)—Winter and summer quarters. Four hours.

This is a course in the supervision of the content subjects in the elementary school. It is intended to serve experienced teachers, principals, supervisors, and superintendents. In the light of research the following items will be considered concerning each subject: (1) Selection of the content of the course of study; (2) determination of grade placement; and (3) selection of efficient methods and materials of teaching. Attention will be given to such commonly used procedures in the content subjects as the problem method and the socialized recitation.

260. PROBLEMS OF ELEMENTARY EDUCATION—Third Course (Handwriting, Composition, Arithmetic)—Spring and summer quarters. Four hours.

This is a course in the supervision of handwriting, composition, and arithmetic in the elementary school. It is intended to serve experienced teachers, principals, supervisors, and superintendents. In the light of research the following items will be considered concerning each subject: (1) Selection of the content of the course of study; (2) selection of efficient methods and materials of teaching; and (3) selection of procedures in the measurement of pupil accomplishment.

## EDUCATIONAL RESEARCH

The Department of Educational Research is a service department for the use of the faculty and the students of Colorado State Teachers College. It undertakes fact-finding investigations suggested by the administration of the College and cooperates with faculty committees and the Faculty Senate in the solution among other problems of those arising in the selection and organization of the curriculum and its teaching. The assistance to students centers about the research seminar required of all students during the first quarter of their graduate year when work on the masters' investigations is begun. Both faculty and students come to the research office often for conferences, and many studies are planned, and carried through with individuals. In addition to these professional contacts, the department offers also routine service made possible because of the office force and the statistical machines and devices available. This consists, as a rule, in the classification of educational data, its checking in original form, its organization, and the determination of point, validity, and relationship measures needed.

The Department of Educational Research is in cooperation with many research agencies, state and national, outside the College. It serves also in city and state curriculum projects and in public school surveys.

Res. 223. RESEARCH IN EDUCATION—Every quarter. Four hours.

To be taken by candidates for the master's degree in the first quarter of their graduate work. This is a required seminar and conference course for graduate students in all departments granting the degree of master of arts. The Director of Educational Research will meet the graduate seminar three times each week and will confer with individual students by appointment. In seminar, the proper technic to be used in educational investigations and allied topics is considered, and opportunity is given each student to report upon and discuss the details of his study so far as time will permit. Among the topics dealt with are: The scientific method; education as a science; educational research; types of research problems; the selection of a problem; the bibliography; methods of investigation; the master's study as a process of ordered thinking; the agendum of procedures and technics; the collection, classification, presentation, and interpretation of educational data; practicums in the organization, interpretation, and reporting of educational material; etc.

## EDUCATIONAL PSYCHOLOGY

## FIRST YEAR

	Sec. A	Sec. B	Sec. C	
Fall	Civ'l. 1 Ed. 1 Elective Phys. Ed. Sci. 1	Art 1 Elective Eng. 4 Hyg. 1 Mus. 25 Phys. Ed.	Civ'l. 1 Ed. 1 Elective Eng. 0 Phys. Ed.	Fall
Winter	Art 1 Elective Minor Mus. 25 Phys. Ed. Sci. 2	Civ'l. 1 Elective Minor Phys. Ed. Sci. 1	Elective Eng. 4 Hyg. 1 Minor Phys. Ed.	Winter
Spring	Hyg. 1 Minor Observ. 1 Phys. Ed. Psych. 2a	Ed. 1 Elective Minor Phys. Ed. Sci. 2	Art 1 Elective Minor Mus. 25 Phys. Ed. Sci. 1	Spring

## SECOND YEAR

	Sec. A	Sec. B	Sec. C	
Fall	Elective Minor Phys. Ed. Psych. 2b Teaching 1	Elective Minor Observ. 1 Phys. Ed. Psych. 2b	Ed. 10 Elective Eng. 21 Phys. Ed. Sci. 2	Fall
Winter	Ed. 10 Eng. 21 Minor Phys. Ed. Psych. 1	Minor Phys. Ed. Psych. 1 Psych. 2a Teaching 1	Eng. 22 Minor Observ. 1 Phys. Ed. Psych. 1 Psych 2b	Winter
Spring	Elective Eng. 22 Hist. 125 Phys. Ed. Psych. 3	Ed. 10 Elective Eng. 21 Phys. Ed. Psych. 3	Elective Phys. Ed. Psych. 2a Psych. 3 Teaching 1	Spring

## THIRD YEAR

	Sec. A	Sec. B	Sec. C	
Fall	Hist. 126 Psych. 110 Psych. 114 or 111 Sci. 2	Eng. 22 Hist. 125 Psych. 110 Psych. 114 or 111	Ed. 10 Minor Psych. 110 Psych. 114 or 111	Fall
Winter	Ed. 116 Elective Minor Psych. 105	Elective Hist. 126 Minor Psych. 105	Elective Hist. 125 Minor Psych. 105	Winter
Spring	Elective Minor Psych. 103 Psych. 104 Observ. 2	Elective Psych. 103 Psych. 104 Psych. 108c	Hist. 126 Psych. 103 Psych. 104 Psych. 108c	Spring

## FOURTH YEAR

	Sec. A	Sec. B	Sec. C	
Fall	Elective Psych. 108a Psych. 117 Teaching 2	Minor Observ. 2 Psych. 108a Psych. 117	Ed. 116 Minor Psych. 108a Soc. 105	Fall
Winter	Elective Elective Psych. Psych. 107 Soc. 105	Ed. 116 Elective Psych. Psych. 107 Teaching 2	Elective Elective Psych. Observ. 2 Psych. 107	Winter
Spring	Ed. 111 Elective Psych. 108b Psych. 115	Ed. 111 Psych. 108b Psych. 115 Soc. 105	Ed. 111 Psych. 108b Psych. 115 Teaching 2	Spring

## EDUCATIONAL PSYCHOLOGY

The courses of this department have been arranged for the purpose of making the student familiar with the important contributions which psychology has made to the problems of education. The whole school system is viewed from the standpoint of the nature and needs of the child. The courses contribute to the problems of what the schools should be and the teachers should do in order to preserve the child's physical and mental health, respect his native capacities and tendencies, secure his normal development, utilize the best modes of learning, and measure the efficiency of his responses. More specific statements of the purposes of the department appear in the descriptions of the courses.

The department prepares students to teach psychology in high schools and teachers' colleges and to fill positions in research and tests and measurements departments. It also has very important contributions to make to the preparation of teachers, supervisors, principals, superintendents and teachers of special schools and classes.

A student who wishes to major in this department must have approximately forty-eight hours credit in psychology for the Bachelor of Arts degree, and not less than sixty-four hours for the Master of Arts degree. In addition he will be obliged to take the core subjects and a minor of twelve to twenty-four hours outside the department.

Courses numbered under 100 are primarily for students in the junior college; those numbered above 100 and under 200 are primarily for students in the senior college; those above 200, primarily for graduate students. Majors in the department will be permitted to elect advanced courses.

### A FOUR-YEAR COURSE OF STUDY IN EDUCATIONAL PSYCHOLOGY

Majors in Psychology are required to distribute their core subjects according to the diagram on page 110. Their departmental subjects should be distributed according to the diagram in the first two years, but in the junior and senior years more liberty is allowed in making the distribution.

In addition to the core subjects listed on page 58, the following psychology courses are required of majors in the department: Psych. 1, 3, 103, 104, 107, 108a, 108b, 108c, 110, 111, 114, 115, 117.

According to the diagram there are sixty-eight hours of core subjects, sixty-four hours of psychology (including the twelve hours of psychology in the core), and seventy-two hours for minors and free electives. Depending upon the needs of the student, he may not be required to take both Psychology 104 and Psychology 105, and both Psychology 108a and Psychology 108b.

Students are required to minor in one or two other subjects. There should be no less than twelve hours in each of two minors, and no less than twenty-four hours in a single minor. The minor or minors should be selected according to the needs of the work which the student is preparing to do.

#### \*1. CHILD HYGIENE—Winter quarter. Four hours.

Purposes: to give the student a better understanding of the significance of health and defects, and to improve his ability to realize the health aim in education.

Topics: the necessity of paying attention to health and some of the bad effects of school life upon it; what the teacher can do to improve the health

\*Given also by extension.

of the school child; the meaning of the physical differences between the adult and the child; the laws and disorders of growth and the factors which influence growth; the effect upon the child of different condition of the air and the right amount of exercise; the nature, causes, prevalence, and bad effects upon the child's activity, health and happiness of such defects as malnutrition, physical deformities, defective vision, defective hearing, defective tonsils and adenoids, defective teeth and unwholesome conditions of the mouth; the methods and means of discovering defects in the school child and the conditions which are necessary to prevent defects; demonstration of methods for detecting defects; what the teacher should do with the children who suffer from various kinds of physical defects.

**\*2a. EDUCATIONAL PSYCHOLOGY—Second year. Every quarter. Four hours.**

Required of all students.

This course serves the double purpose of introducing the student to the fundamental principles of educational psychology underlying the practices of education and of providing the minimum essentials of the technic of measuring the results of education.

Topics: purposes of educational psychology and the application of psychological methods to the problems of the school room; origin, development and general characteristics of inherited nature, including the central and autonomic nervous systems; emotional development and control and the problems of the socially maladjusted school child; the problem of the intellectually maladjusted school child—the backward and retarded child; individual differences of school children; introduction to statistical terminology and usage; meaning and measurement of intelligence—samples of intelligence tests and the interpretation of the results; problems of measurement of educational achievement—samples of standard educational tests and the interpretation of their results; the use and construction of classroom tests; distribution of school marks from scores obtained from objective tests.

**\*2b. EDUCATIONAL PSYCHOLOGY—Second year. Every quarter. Four hours.**

Required of all students. May be taken before 2a.

Purposes: to acquaint the student with the psychology underlying learning and instruction; to prove the student's ability to control learning by familiarizing him with the laws and principles which are a description of how learning occurs and with such conditions and procedures as will greatly facilitate learning.

Topics: the content of the course consists of a description of the nature of learning; a classification of the kinds of learning such as motor, perceptual, and informational; a treatment of the primary and secondary laws and principles of learning with many illustrations of their operation in simple and complex functions; the laws of learning illustrated by reference to such elementary school subjects as handwriting, reading, arithmetic, spelling, history, geography, poetry, etc.; the physiological, psychological, and educational conditions of learning; general characteristics of learning such as the rate, amount, and limits of improvement, as found in different functions; learning and forgetting curves, plateaus and physiological limits in different functions; factors and principles entering into economical learning and studying; the problem of transfer with respect to methods of discussion and manner of transfer in sensori-motor and perceptual processes; in reasoning, in memories, and other associative processes; transfer as actually found in both the elementary and high school subjects.

**3. CHILD DEVELOPMENT—Second year. Spring quarter. Four hours.**

This course is designed to meet the needs of those interested in the education of the pre-school, the kindergarten, and the elementary school child.

Purposes: to point out the psychological capacities of the child at various levels of his development; to acquaint the student with the typical and, to a limited extent, the atypical behavior that is characteristic of these several levels.

Topics: the nature of development; past and present methods of attacking the problem; heredity versus environmental factors in the development of the child; innate equipment common to all children; growth characteristics of the pre-school, kindergarten, and elementary school child; activity characteristics or behavior tendencies of these periods; emotional responses characteristic of these periods; habit formation throughout these periods, developing mental activities—sensation, perception, attention, imagination, thinking, etc.; social attitudes and the development of personality.

**4. PSYCHOLOGY OF STUDY—First year. Fall quarter. Two hours.**

The primary purpose of this course is to aid students in the formation of their own study habits and adjustments to college study requirements.

\*Given also by extension.

The secondary purpose is to enable the students as prospective teachers to lay a foundation in methods of study habit formation and guidance that will permit them as teachers to assist efficiently those pupils who will eventually come under their control in the public schools. A large part of the work of the course will be in the nature of applications to the study problems of the individual, thus putting into practice the points emphasized in instruction.

Topics: the assignment from the pupil's point of view—i. e. what to do with whatever assignment is given; reading habits for different school purposes, building a working vocabulary, note taking, both from lectures and from reading assignments; locating and using information in library and from other sources; preparing special bibliographies and reports; preparing for examinations; taking examinations; budgeting one's time and making a working schedule; using study time efficiently; efficient distribution of time in learning; special study devices and when to use them and when not to use them.

**103. PSYCHOLOGY OF ADOLESCENCE—Third or fourth year. Spring quarter. Four hours.**

This course is designed to meet the needs of those interested in secondary education either as teachers, administrators or as boys' and girls' advisers.

Purposes: this course serves the same purpose for the adolescent level that Course 3 does for the earlier levels of childhood. See Course 3.

Topics: the nature of adolescence—saltatory or continuous development; physical characteristics; intellectual characteristics and needs; emotional characteristics and emotional stabilization; the development of social consciousness and responsibility for a place in the social order; sex phenomena and the mental hygiene of the adolescent; individual differences in adolescent interests and the needs of the adolescent in these respects.

**\*104. PSYCHOLOGY OF ELEMENTARY SCHOOL SUBJECTS—Spring and summer quarters. Four hours.**

Purposes: to prepare the student to give more effective assistance to the child in his attempt to learn handwriting, reading, spelling, language, arithmetic, history, and geography by making him familiar with such procedures, factors and conditions of learning as have been found to be superior through experimental studies, the application of the laws of learning and the known facts about the child's capacities and tendencies.

Topics: an analysis of the abilities involved in each school subject as a basis for discovering what needs to be learned, what is adapted to the child's learning capacity and what kind of assistance the individual child is most in need of; the influence upon learning the school subjects of such environmental factors as light, paper and print, and such native factors as intelligence, age, sex, instincts and emotions, likes and dislikes, and special aptitudes; the methods and values of utilizing the most important laws of learning such as association, repetition, multiple response and satisfaction; the deficits of textbooks from the standpoint of the laws of learning; the results of experimental investigations; individual differences in learning the school subjects and their significance.

**105. THE PSYCHOLOGY OF SENIOR HIGH SCHOOL SUBJECTS—Third year. Winter and summer quarters. Four hours.**

Purposes: to stress the importance of the psychological rather than the logical or chronological treatment of high school subject matter; to make available the results of experimental studies relative to the application of the principles of learning to the high school subjects as modified by the individual capacities and interests of the high school pupils; to demonstrate the psychological importance of cooperation of all the teachers of the different subjects for the benefit of the pupil; to supply criteria by which to judge and modify proposed methods of teaching in high school and enable the teacher to develop methods independently in light of these criteria.

Topics: the psychological characteristics of the high school pupil; the essential difference between the new and the old high schools from a psychological point of view; the psychology of study as applied to high school subjects; the psychology of methods employed in the teaching of the various subjects in high school; the psychology of motivation and appreciation in high school; the psychological analysis of the several subjects in this course.

**106. CLINICAL PSYCHOLOGY—Winter quarter. (Not given 1929-30.) Four hours.**

Purposes: to teach the student the various technics which are employed to determine the general mental status and the specific abilities and disabilities of the school child; to give the student the psychological training requisite for engaging in the training of subnormal children.

\*Given also by extension.

Topics: description of clinical psychology; the methods and objectives of clinical psychology; its inception and history; the kind of data which should be collected for the purpose of making mental diagnoses, prognoses and recommendations for treatment; blanks suitable for collecting and recording such data; qualifications requisite for successful psycho-clinical work; the value of classification; types of retardation and acceleration; the causes of retardation; a knowledge of subnormal children as a partial preparation for clinical work; the mental and physical traits of the subnormal; the causes, prevalence, and learning capacity of the subnormal; the social and racial significance of subnormality; the disposal, treatment, and training of the subnormal; clinical studies of several children for demonstration purposes.

**107. MENTAL TESTS AND MEASUREMENTS—Winter and summer quarters. Four hours.**

Purposes: to familiarize the student with the different kinds of mental measurement and with the means and methods of making them; to develop the right attitude toward the use of mental tests; to point out the social, educational, vocational and psychological significance of mental tests.

Topics: history of the testing movement; classification of mental tests and measurements, including tests of intelligence and personality traits; the meaning of intelligence; the principles of intelligence testing; the possibility of improving intelligence; the influence of intelligence upon achievement; the construction of intelligence tests; criteria for selecting tests for practical purposes; preparation for giving intelligence tests; tabulating and interpreting the results of tests; the value of tests for educational and vocational guidance; the uses of intelligence tests in the practical work of schools and colleges; differences in intelligence among individuals, races, occupational groups and between the sexes and city and rural school children; the relation between intelligence on the one hand and crime and physical traits on the other.

**\*108a. EDUCATIONAL MEASUREMENT IN THE ELEMENTARY GRADES AND JUNIOR HIGH SCHOOL—Fall and summer quarters. Four hours.**

This course has been prepared for those who teach and supervise in the elementary school, including the junior high school.

Purposes: to give an appreciation of the importance of accurate measurement in education; to make the student familiar with the best standardized educational tests and with their use in the schoolroom; to develop the right attitude toward the use of standardized tests.

Topics: history of the development of educational tests and measurements; nature and classification of tests and measurements; general values of educational measurements; the importance and requirements of greater accuracy in educational measurements; the limitations and improvement of teachers' marks and examinations; standardized tests as substitutes for teachers' examinations; limitations of standardized tests; general discussion of objective tests; criteria for selecting standardized tests; instructions for giving tests; using the results of educational measurements for such purposes as educational guidance, reclassification of children, making promotions and diagnoses, and measuring the efficiency of the schools; the use of tests as a teaching device; written description of several tests in which the student is especially interested.

**\*108b—EDUCATIONAL MEASUREMENT IN THE SENIOR HIGH SCHOOL—Fourth year. Spring and summer quarters. Four hours.**

Purposes: (a) to give the student an appreciation of the meaning and importance of accurate measurement in education; (b) to develop a realization of the inaccuracy of the traditional methods of measurement; (c) to give the student a working knowledge of the best instruments for measuring the outcomes of education; (d) to develop the right attitude toward the use of measuring instruments.

Topics: the content of the course consists of an historical sketch of the development of educational tests and measurements; why better measurement in high school; limitations of the traditional type of examination; methods of improving examinations; the newer informal types of examination with their advantages and use in high school instruction; standardized tests for teachers of English, mathematics, science, language, social science, physical education, and miscellaneous tests; criteria for the choice of tests; norms and standards; derived scores; measurement of conduct; prognosis tests; prediction of success in high school; use of tests in guidance; promotion; ability grouping; marks and marking systems.

**\*108c. TEACHERS' CLASSROOM TESTS—Spring quarter. Four hours.**

This course may be taken by sophomores who are in their last quarter as well as by senior college students.

Purposes: to give instruction in the nature and uses of teachers' tests; to give practice in their construction, administration, scoring, and the use and interpretation of their results.

\*Given also by extension.

Topics: types of teachers' classroom tests; their deficiencies and advantages; types of objective tests such as the simple recall, completion, true-false, multiple choice and its variants, judgment, re-arrangement, and matching; practice in the construction of the different types of objective tests; criticism, administration and scoring of these types; interpretation of the results of objective tests; using the results in teaching and in making diagnoses, promotions and reclassifications.

**109. CLINICAL PRACTICE—**On request. Two or four hours.

Purposes: to give the student practice in making a first-hand study of individual children, especially those who are problem cases on account of bad behavior and special abilities or disabilities in one or more of the school subjects.

The child is examined for such physical and mental abnormalities as are responsible for his failures. On the basis of the results of the examination remedial treatment is prescribed and given. Before taking this course the student should have had a course in mental tests.

**\*110. GENERAL PSYCHOLOGY—**Fall quarter. Four hours.

Purposes: to give the student a fuller knowledge of the subject matter of the science of psychology, its problems, methods, concepts, and theories than is possible in any of the other courses offered by the department, in the hope that students may be better able to apply psychological principles to situations in which they may be helpful and have a better appreciation of the differences between psychology as a science and psychological quackery, and of the literature in other fields in which psychological concepts and theories appear or are alluded to; to prepare students to teach psychology in colleges and high school.

Topics: the content of the course is very similar to that which is found in most of the texts in general psychology. The following topics are discussed: the nature of psychology; its problems and methods; its relation to other sciences; the nature and kind of reactions and their physiological basis; the nervous system; tendencies to reaction and their relation to motives and purposes; distinction between native and acquired traits; the nature of instincts and emotions; discussion of the various kinds of instincts and emotions; the nature of feeling; the elementary sensations of the different senses with some discussion of the nature of the sense-organs mediating them; the nature and laws of attention; the nature of intelligence; the nature of learning and habit formation; the nature of memory with some discussion of economy in memorizing; mental imagery; the nature and laws of association; the nature and kinds of perception, reasoning, and imagination; the will and personality.

**111. THE PSYCHOLOGY AND PATHOLOGY OF SPEECH—**Fall quarter. (Not given 1929-30.) Four hours.

Purposes: to acquaint the student with the importance of speech for individual development and as a means of communication; to offer instruction in the methods and importance of correcting speech defects.

Topics: the psychological and physiological aspects of speech; the evolution of speech; functions and development of speech; elements in the production of tone; the use of phonetic symbols in language development; speech and personality; classification of speech defects; their social, pedagogical, vocational and personal handicaps; their prevalence; their causes and methods of correcting them; classroom demonstrations in diagnosing and treating some types of defects.

**112. PSYCHOLOGY OF MUSIC—**Winter quarter. Four hours.

Purposes: to increase the student's understanding of music; to give assistance in preparing him to teach music.

The general topics of this course are: The application of the psychology of learning to the teaching and learning of music; The sensory, intellectual and motor aspects of music; tests of musical aptitude and the use of their results in the schools; standardized tests of musical knowledge, musical appreciation, and musical performance and the use of their results; the psychology of appreciation in music; heredity and musical talent.

**113. PSYCHOLOGY OF INDUSTRIAL ARTS, HOME ECONOMICS, AND FINE ARTS—**Third year. (On request.) Four hours.

Required of all industrial arts, home economics, and fine arts majors preparing to teach and supervise work in the senior high school.

Purposes: to acquaint the prospective high school teacher with: nature of individual variations in the capacity for and efficiency in different mental functions; an analysis of the different mental processes and activities involved in the practical arts; the application of psychological principles in the learning of mental functions; tests and measurements in the field of practical arts.

Topics: the content of the course consists of a treatment of individual differences, their causes and effects; popular systems of vocational

\*Given also by extension.

analysis and their fallacies; psychological methods in vocational analysis; intelligence and success in the field of practical arts; a survey of recent experimental literature of an analytical nature dealing with the psychological selection and arrangement of subject matter, how best to present the subject matter, physiological and psychological factors conditioning learning; individual differences in learning; measuring the extent to which learning has taken place by means of improved written examinations and standardized tests; a study of standardized prognostic and achievement tests; technic of giving and scoring tests; how to handle the results of informal and standardized tests.

#### 114. PSYCHOLOGY OF DELINQUENCY—Fall quarter. Four hours.

Purpose: the purpose of this course is to contribute to the realization of the most important education aim, the improvement of the moral behavior of children, by giving instruction in the prevention and correction of delinquent acts.

Topics: the nature of delinquency; the method of the psychologist; the causes of delinquency; how they operate to produce maladjustment and bad behavior; the relative importance of each cause; suggested methods of treatment for each cause or combination of causes; illustrative cases; classification of delinquent acts. The causes or conditions favorable to delinquency are classified under the general headings of heredity, environment, physical development, physical ailments, degree of intelligence, instincts and emotions, general emotionality, sentiments and complexes, and neuroses. Under each one of these headings many specific causes of delinquency appear. For each of these the method of its operation in the production of crime, the relative importance and the best methods of treatment are discussed.

#### 115. ABNORMAL PSYCHOLOGY AND MENTAL HYGIENE—Spring quarter. Four hours.

Purposes: to increase the student's understanding of normal behavior by making him familiar with abnormal behavior; to give the prospective teacher some of the training which is necessary to avoid abnormalities of character and personality. The results of investigations indicate that many mental disorders are an educational rather than a medical problem.

Topics: diagnostic procedures; abnormalities of sensation, perception, association, memory, movement, emotions and personality; delusions; sleep and dreams; suggestion and hypnosis; the psycho-neuroses such as neurasthenia, psychasthenia and hysteria; the functional and organic psychoses such as dementia praecox, manic-depressive insanity, paranoia, general paresis, toxic and senile psychoses, gross brain disease and epilepsy; the causes of abnormal behavior; preventive and remedial measures.

#### 116. PSYCHOLOGY OF COMMERCIAL SUBJECTS—Winter and summer quarters. Four hours.

Required of all commercial majors preparing to teach in the senior high school, unless they have already taken Psychology 113.

Purposes: to acquaint the prospective high school teacher with: nature of individual variations in the capacity for and efficiency in different mental functions; an analysis of the different mental processes and activities involved in typewriting, shorthand, and bookkeeping; the application of psychological principles in the learning of these functions; tests and measurements in the field of typewriting, shorthand, and bookkeeping.

Topics: the content of the course consists of: a treatment of individual differences, their causes and effects; intelligence and success in the commercial field; a survey of recent literature dealing with the selection and arrangement of subject matter, the psychological principles underlying the learning and teaching of typewriting, shorthand, and bookkeeping; physiological and psychological factors conditioning learning; measuring the extent to which learning has taken place, by means of informal and standardized tests; a study of standardized, prognostic, and achievement tests; technic of giving and scoring tests; how to handle the results of informal and standardized tests.

#### 117. ELEMENTARY STATISTICAL METHODS—Fall and summer quarters. Four hours.

Purposes: to prepare the student to interpret the scientific literature in psychology and education; to prepare him to make the computations involved in the use of tests and measurements, and in making original investigations which require a statistical technic.

Topics: the value of statistical methods; common errors in the use and interpretation of statistics; the collection and classification of data; graphic and tabular expression of statistical facts; measures of central tendency such as the median, the mode and the arithmetic mean; measures of variability, such as the quartile deviation, the mean deviation and the standard deviation; measures of relationship such as the product-moment method, the method of rank-differences, the method of mean square contingency, the eta correlation and biserial r; probable errors of measurement and the use of probability tables; the meaning, interpretation and uses of the types of measurement enumerated above.



213. CONFERENCE, SEMINAR, AND LABORATORY COURSES—Any quarter. Hours depending upon the amount of work done.

Purpose: to make it possible for the student to do, on problems which are of especial interest to him, more extensive and exhaustive work than was possible in the other courses in Psychology.

Suggested topics: test construction; diagnostic testing; practice in giving tests and working up the results of tests; prognostic testing; intensive study of all the tests in one or more of the school subjects; problems in learning and the transfer of training; the relative effect of heredity and environment on individual differences; sex hygiene; retardation; delinquency; a study of tests of moral behavior; personality traits, the emotions, temperament, and will; current psychological literature, etc.

214. ADVANCED EDUCATIONAL PSYCHOLOGY—Spring quarter. (Not given 1929-30.) Four hours.

Purposes: (a) to give the student a first-hand acquaintance with the experimental literature in educational psychology; (b) to develop an appreciation of psychological methods and experimental technic; (c) to give a fuller knowledge of some of the topics which are the subject matter of the elementary courses in educational psychology.

Topics: a study of some of the psychological methods and experimental technic involved in the development of educational psychology; the nature and varieties of learning; animal learning; associative learning in man; analytical learning; selective thinking and reasoning; the nature of mental functions; learning curves; the improvement of mental functions; the amount, rate, and limits of improvements; the factors and conditions of improvement; forgetting; the spread of improvements of the transfer of training; fatigue; curves of work; heredity; differences in individuals, families, sexes, and races.

217. INTERMEDIATE STATISTICAL METHODS—Four hours. Given on demand.

Purposes: to prepare the student to interpret the scientific literature in psychology and education; to prepare him to make the computations involved in the use of tests and measurements, and in making original investigations which require a statistical technic.

Topics: computing coefficients of correlation by different forms of the product-moment method; partial and multiple correlations of different orders; different forms of the regression equation for three or more variables; interpreting the results of partial correlations; the path coefficient technic and its relation to the regression equation; the elements of curve fitting; the application of statistical methods to the construction of performance and quality scales and to test results.

222. EXPERIMENTAL TECHNIC AND ITS APPLICATION—Fall and summer quarters. Two or four hours.

This course will involve: names, reasoning, and induction in experimentation; four historical methods of experimental inquiry; recent methods of experimentation in education; planning an educational experiment; selection of technic; finding the subjects; relevant and irrelevant variables; experimental measurements, the statistics of experimentation; interpretation of experimental data; the reliability of conclusions reached; report and publication of the results of an experiment; thoughtful reading of experimental literature; selection, making, and scoring of tests and examinations; principles of graphic and tabular representation; classification of pupils; educational diagnosis; educational and vocational guidance.

223. RESEARCH IN EDUCATIONAL PSYCHOLOGY—Every quarter. Four hours.

Taken in the first quarter of graduate work.

This is a required seminar and conference course for graduate students who are working on their masters' investigations. The director of educational research meets the group three times each week and confers with individual students in the research office. Small group conferences are held when needed. Each student meets his thesis adviser regularly.

224. RESEARCH IN EDUCATIONAL PSYCHOLOGY—Every quarter. Four hours.

In his second quarter of graduate work, the candidate for the master's degree in psychology reports progress on his thesis once a week to his thesis adviser.

225. RESEARCH IN EDUCATIONAL PSYCHOLOGY—Every quarter. Two hours.

In his third quarter, the candidate for the master's degree reports progress on his thesis once a week to his thesis adviser.

## ENGLISH AND LITERATURE

		FIRST YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Winter	Civ'l. 1	Art 1		Civ'l. 1	Fall	Winter
		Ed. 1	Elective		Ed. 1		
		Elective	Eng. 4		Elective		
Spring	Winter	Phys. Ed.	Hyg. 1		Eng. 0	Spring	Winter
		Sci. 1	Mus. 25		Phys. Ed.		
			Phys. Ed.				
Fall	Winter	Art 1	Civ'l. 1		Eng. 4	Fall	Winter
		Eng. 8	Eng. 8		Eng. 8		
		Minor	Minor		Hyg. 1		
Spring	Winter	Mus. 25	Phys. Ed.		Minor	Spring	Winter
		Phys. Ed.	Sci. 1		Phys. Ed.		
		Sci. 2					
Fall	Winter	Elective (2 hours)	Ed. 1		Art 1	Fall	Winter
		Eng. 9	Eng. 9		Eng. 9		
		Hyg. 1	Minor		Minor		
Spring	Winter	Observ. 1 (2 hours)	Phys. Ed.		Mus. 25	Spring	Winter
		Phys. Ed.	Sci. 2		Phys. Ed.		
		Psych. 2a			Sci. 1		
		SECOND YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Winter	Eng. 10	Elective (2 hours)		Ed. 10	Fall	Winter
		Minor	Eng. 10		Eng. 10		
		Phys. Ed.	Minor		Eng. 21		
Spring	Winter	Psych. 2b	Observ. 1 (2 hours)		Phys. Ed.	Spring	Winter
		Teaching 1	Phys. Ed.		Sci. 2		
			Psych. 2a				
Fall	Winter	Ed. 10	Eng. 6		Elective (2 hours)	Fall	Winter
		Elective	Minor		Eng. 22		
		Eng. 21	Phys. Ed.		Minor		
Spring	Winter	Minor	Psych. 2b		Observ. 1 (2 hours)	Spring	Winter
		Phys. Ed.	Teaching 1		Phys. Ed.		
					Psych. 2a		
Fall	Winter	Eng. 6	Ed. 10		Eng. 6	Fall	Winter
		Eng. 22	Elective		Minor		
		Hist. 125	Eng. 21		Phys. Ed.		
Spring	Winter	Minor	Minor		Psych. 2b	Spring	Winter
		Phys. Ed.	Phys. Ed.		Teaching 1		
		THIRD YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Winter	Eng. 11	Eng. 20		Ed. 10	Fall	Winter
		Eng. 20	Eng. 22		Eng. 12		
		Hist. 126	Hist. 125		Eng. 16		
Spring	Winter	Minor	Ed. 116		Minor	Spring	Winter
		Ed. 116	Eng. 1		Eng. 1		
		Eng. 1	Eng. 11		Eng. 20		
Fall	Winter	Eng. 12	Eng. 16		Hist. 125	Fall	Winter
		Minor	Hist. 126		Minor		
Spring	Winter	Eng. 16	Eng. 2		Eng. 2	Spring	Winter
		Eng. 105	Eng. 12		Eng. 11		
		Minor	Minor		Hist. 126		
Fall	Winter	Observ. 2	Elective		Minor	Fall	Winter
		Psych. 105					
		FOURTH YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Winter	Eng. 106	Eng. 105 (2 hours)		Ed. 116	Fall	Winter
		Eng. Elective	Eng. Elective		Eng. Elective		
		Minor	Observ. 2 (2 hours)		Minor		
Spring	Winter	Teaching 2	Psych. 105		Soc. 105	Spring	Winter
		Elective	Eng. 106		Elective (2 hours)		
		Eng. Elective	Eng. Elective		Eng. 105		
Fall	Winter	Minor	Minor		Minor	Fall	Winter
		Soc. 105	Teaching 2		Observ. 2 (2 hours)		
					Psych. 105		
Spring	Winter	Ed. 111	Ed. 111		Ed. 111	Spring	Winter
		Elective	Eng. Elective		Eng. 106		
		Eng. Elective	Minor		Minor		
Fall	Winter	Minor	Soc. 105		Teaching 2	Fall	Winter

## ENGLISH AND LITERATURE

The English courses are planned so as to be complete and sufficient for all the needs of public school teachers, elementary and secondary.

Courses in composition, in oral English, public speaking, dramatic art and play production, in the teaching of English in the elementary and the secondary school, in grammar and the teaching of grammar, and in the cultural phases of literature are offered as electives for students who expect to become grade teachers or who are pursuing some other group course than English and wish to elect these from the English department as minors.

Some of the elective courses for third and fourth year students will be offered once every two years. Majors in English should plan their work in such a way as to take the fullest advantage of the alternating courses.

Colorado State Teachers College requires all its students to take an examination in the fundamentals of written English. Only those who score in the upper third on the English test are advised to become English majors. Those whose scores in the test fall in the lowest third are required to take English 0 without college credit. Those in the middle third are exempt from English 0 but are required to take English 4 with college credit. Those with scores in the upper third are exempt from both English 0 and English 4.

### A FOUR-YEAR COURSE OF STUDY IN ENGLISH AND LITERATURE

Majors in English are required to distribute their core subjects according to the diagram on page 118. Their departmental subjects should be distributed according to the diagram in the first two years, but in the junior and senior years more liberty is allowed in making the distribution.

In addition to the core subjects listed on page 58, the following English courses are required of majors in this department: Eng. 1, 2, 6, 8, 9, 10, 11, 12, 16, 20, 105, 106 and twenty hours of English selected by the student to meet his own anticipated need. Those who are especially interested in oral English should elect Eng. 13, 14, 18, 19, 112, and 114. Students who know from the beginning of the freshman fall quarter that they are to be English majors and will go through the four-year course without stopping for the limited certificate at the end of the second year may take English 6 in the fall quarter if they wish to do so.

English majors are required to take twenty-four hours in a minor subject. They may select two minors of from twelve to twenty-four hours each. As minors a foreign language, history, or social science are suggested for English majors, but the student is free to choose his minor or minors.

English majors expecting to take the limited certificate at the end of the second year should defer English 8, 9 and 10 till the third year and fill in as a minor all the spaces marked "minor" and "elective" with the courses prescribed for graduation from the intermediate or junior high curricula. The intermediate courses are: Hist. 10, Ed. 4a, Hist. 13b, Art 2a, El. Sci. 1, Geog. 10, Music 1a, Geog. 11, Ed. 4b, Math. 10. Total thirty-eight hours.

English majors selecting junior high school as their minor should consult the recommendations of the Department of Education, page 94, as a guide to the selection of minor subjects.

The arrangement set out in the diagram requires seventy-two hours of core subjects, six hours of physical education, fifty-two hours of

English (outside the English and literature in the core), and sixty-eight hours for minors and free electives. Total 198 hours.

0. FUNDAMENTALS OF ENGLISH—Every quarter. No credit.

This course and English 4 are required of all students whose grades in the English exemption test place them in the lowest third of the freshman class. The work covers the fundamentals in the mechanics of expression, both oral and written.

1. LITERATURE FOR THE ELEMENTARY SCHOOL—Intermediate Grades. Every quarter. Four hours.

Required of intermediate and English majors.

A survey of children's literature appropriate for use in grades three to six, inclusive. A survey of children's literature and a study of motivation in the field of reading, oral and silent, for children; the consideration of principles governing the choice of literature in these grades; practice in the organization and presentation of type units, including dramatization and other vitalizing exercises. A flexible course, affording opportunity for intensive work within the scope of any one or more of the grades four, five, or six, according to the individual need or preference.

2. LITERATURE FOR THE JUNIOR HIGH SCHOOL—Every quarter. Four hours.

Required of English majors and of junior high school majors choosing English as one of their two special subjects.

A survey of children's literature appropriate for use in the seventh, eighth, and ninth grades. A survey of children's literature and a study of motivation in the field of reading, oral and silent, for children; the consideration of principles governing the choice of literature in these grades; practice in the organization and presentation of type units, including dramatization and other vitalizing exercises. A flexible course, affording opportunities for intensive work within the scope of any of these three grades, according to the individual need or preference.

4. SPEAKING AND WRITING ENGLISH—Every quarter. Four hours.

Required of all students whose scores in the English exemption test place them in the middle third of the class.

Minimum essentials of oral and written composition. Theory and practice of composition of college grade.

\*6. AMERICAN LITERATURE—Winter, spring, and summer quarters. Four hours.

A course in American literature following the plan of courses 8, 9, and 10 in English literature. The work is professionalized by the consideration of the selection of material for the schools.

\*8. A SURVEY OF ENGLISH LITERATURE 700-1625—Winter and spring quarters. Four hours.

This is a comprehensive reading course dealing with the beginnings of English literature and following the development of ideas through the early poetic and prose forms to the more definite expression in the later seventeenth century. The course consists of readings supplemented with the historical background of the periods extending to the "Age of Milton," 1625.

\*9. A SURVEY OF ENGLISH LITERATURE 1625-1798—Spring quarter. Four hours.

This comprehensive reading course begins with the "Age of the Cavalier and the Puritan" and includes the Period of Classicism. The same plan is followed as that indicated for English 8.

\*10. A SURVEY OF ENGLISH LITERATURE—Fall and spring quarters. Four Hours.

This course follows the plan of 8 and 9 and deals with English literature from 1798 through the Victorian Age to 1900.

\*11. THE ENGLISH LANGUAGE FOR TEACHERS—Every quarter. Four hours.

Required of intermediate majors and of junior high school majors choosing English as a minor subject. Required of English majors.

A professionalized course in the English language. This course consists of three parts: (a) the story of the origin and development of language and the history of the English language; (b) English grammar from the professional point of view; and (c) the teaching of composition.

\*Given also by extension.

Under (b) and (c) the course includes the history of grammar and composition in the school curriculum, the aims and educational values of the subject, the psychology of English teaching, tests and devices for measuring progress, and instruction in the teaching of written English in the upper grades.

This course combines the topics formerly included in English 2 and English 11, but leaves the practice of the writing in composition exercises for the grades to Ed. 4a. Textbooks: Cross's "Fundamentals in English," and "Teachers' Guide to the Little Book of English Composition."

#### 12. ORAL EXPRESSION—Every quarter. Two hours.

This basic course in the art of oral expression teaches the fundamental laws of interpretation and the manifestation of these principles through natural expression. Appreciation of the author's meaning is stressed. This course also embodies the subject of public speaking; the types including exposition, narration, and extemporaneous talks. Good speech habits are stressed, drills being given for clear-cut, accurate articulation, flexibility, freedom, and expressiveness of voice. This course is prerequisite to English 14.

#### 13. THE ART OF STORY TELLING—Every quarter. Four hours.

The technic of story telling is first given. Then students have opportunities of applying these principles to the main types of narrative.

#### 14. DRAMATIC ART—Fall quarter. Four hours.

Prerequisite, English 12.

This course embraces all the basic principles of dramatic art. Bodily, facial, and vocal expression are developed in impersonation, special emphasis being placed upon abandon of the character in the role portrayed. Definiteness in stage business is developed. Balance, color harmony, and stage design are studied for appreciation. The course is designed to meet the needs of students producing plays in the junior and senior high schools. Direction of short plays by the student is carried on under the supervision of the instructor. This course is prerequisite to English 105.

#### 16. CONTEMPORARY LITERATURE—Fall and winter quarters. Four hours.

An appreciation course dealing with the literature of the twentieth century. Most teachers of literature leave the impression that literature must age like fiddles and wine before it is fit for use. Such is not the case. Much good literature is being produced every year. After students leave school, it is just this current literature that they will be reading, if they read at all. This course helps them to form a discriminating taste for reading and to acquire a liking for reading, so that after they leave college they will be alive to what the world is thinking, feeling, doing, and saying.

#### 18. DEBATING—Fall quarter. Two hours.

A practice course in debating open to any student interested in interclass and intercollegiate debating. The teams for the intercollegiate debates are chosen at the end of the quarter largely from the students enrolled in this group.

#### 19. DEBATING—Winter quarter. Two hours.

Those students who were selected for the intercollegiate debate teams will comprise the classes in English 19, one for men and one for women. The work will consist of the preparation for the debates.

#### \*20. ADVANCED COMPOSITION—Every quarter. Four hours.

Prerequisite, English 0 and 4.

This departmental required course is designed to give individual practice in writing and to prepare students for the teaching of written composition.

#### 21. AN OUTLINE OF LITERATURE—Every quarter. Four hours.

Readings in the literature of those nations whose dramas, epics, lyrics, letters, histories, novels, stories, essays, etc., have influenced the thought and culture of the world. It is intended in this course and the one following to give the freshman students a connected story of literature and also to give them a sufficient amount of reading in the form of selections and complete units of the literature itself to assure the college that its graduates will be well informed in the field of literature and cultivated men and women to the extent that a general reading of literature may contribute to their culture.

This course briefly tells the story of the development of literature in the orient (China, Japan, India, Persia, and Palestine) with a limited amount of reading of interesting pieces in good English translations. Then it passes to Greek literature with ampler readings. Latin literature follows. The course concludes with readings in the mediaeval European literature that is the beginning of the literature of modern Europe and America, extending into the modern period as far as time will permit.

\*Given also by extension.

**22. AN OUTLINE OF LITERATURE—(Continued)—Every quarter. Four hours.**

A continuation of Course 21. The story of literature illustrated with extensive readings in translation of as many of the great modern pieces of literary art as time will permit. The literature of France, Italy, Germany, Russia, the Scandinavian countries, England, Ireland, and the Americas will be included. Always the readings will be of complete pieces, not illustrative extracts, of those great literary productions that have been significant in the development of civilization and of interest to the general reader.

**\*31. THE SHORT STORY—Spring and summer quarters. Four hours.**

A study of typical modern short stories to observe the technical methods of modern short story writers and the themes they have embodied in the magazine fiction of the present.

**60. THE LIFE AND TEACHINGS OF JESUS—Fall quarter. Four hours.**

This course is a literary study of the four gospels, from an historical point of view. It also includes an intensive study of the teachings of Jesus, in the light of the background out of which He came.

**100. JOURNALISM—Fall quarter. Four hours.**

A beginning course in journalism; designed primarily for those who desire to teach journalism in the high school or who may be called on to act as advisers to high school students in the publication of the school paper. It pre-supposes a knowledge of English and grammar. Much of the time is devoted to a study of news values, with particular emphasis on such values as applied to news for the high school paper. The mechanical and technical phases of school papers are also treated in this course. The foundation for further work in journalism, including extended writing based upon the requirements of newspapers and magazines, is laid in this course. English 100 must be taken before one may register for either 101 or 102.

**101. JOURNALISM—Winter quarter. Four hours.**

A continuation of English 100. This course affords opportunity for more writing than might be obtained in ordinary English composition classes. Students are given opportunity for practice in reporting and interviewing, and writing for print.

**102. JOURNALISM—Spring quarter. Four hours.**

A continuation of English 101. An advanced course in composition, dealing with editorials, dramatic and literary reviews, newspaper and periodical policies, newspaper make-up, editing, and head writing.

**105. ORAL ENGLISH IN THE HIGH SCHOOL—Spring and summer quarters. Two hours.**

Prerequisites, English 12 and 14.

The discussion of practical problems concerning the direction of oral English in the secondary school, oral composition, literary society and debating activities, dramatics, etc.

**106. THE TEACHING OF ENGLISH IN THE HIGH SCHOOL—Winter and summer quarters. Four hours.**

Principles for the selection of literature for senior high school pupils considered critically; illustrative studies in the treatment of selective pieces; study of types of composition work for high schools, with illustrative practice in writing.

**107. COMPARATIVE LITERATURE—Greek and Latin. Fall quarter. Four hours.**

A survey of the main contributions of classical culture to world literature. The reading in English translation of Homeric epics and the dramas of Aeschylus, Sophocles, and Euripides. Courses 107, 108, and 109 cover the same ground as English 21 and 22 but they are senior college or graduate courses with intensive readings of only a few of the great pieces of literature of the world.

**108. COMPARATIVE LITERATURE—Italian, Spanish, and French. Winter quarter. Four hours.**

A study of literary elements and influences deriving from Medieval and Renaissance cultures; a review of the trends of modern romance literature; a careful reading in translation of outstanding classics, notably Dante's "Divine Comedy."

\*Given also by extension.

109. COMPARATIVE LITERATURE—German, Scandinavian, and Russian. Spring quarter. Four hours.

A comparison of Teutonic epic material with Greek and Romance epic; a survey of the significant contributions in the literature of Germanic and Russian peoples; the careful study of Goethe's "Faust."

112. CHILDREN'S THEATER—Winter quarter. Four hours.

Instruction concerning the selection of plays for intermediate and junior high school children. Directing the players, stage settings, scenery, costumes, etc. All the technic of children's dramatics from choosing the play to presenting it before an audience.

114. PLAY PRODUCTION—Winter and summer quarters. Four hours.

Prerequisite, English 14.

A lecture and laboratory course designed primarily for teachers and students who intend to engage in the work of play production in the schools, the Little Theater, or the Children's Theater. Building on the fundamentals of dramatic art as given in English 14, this advanced course includes such phases of theatrical technic as staging, lighting, costuming, and make-up. Puppetry and shadow shows are studied. Choice of materials for amateur theatricals is considered. Special emphasis is laid on the actual production of plays, including casting and directing.

120. LYRIC POETRY—Winter and summer quarters. (Not given 1929-30.) Four hours.

A comparative study of types, theme, spirit, and technic of standard English lyrics with an attempt to estimate the significance of contemporary tendencies in poetry.

121. EARLY NINETEENTH CENTURY POETRY—Fall quarter. (Not given 1929-30.) Four hours.

A study of English poetry from Wordsworth to Tennyson, including Coleridge, Byron, Shelley, Keats, and the lesser writers from 1798 to 1832.

122. VICTORIAN POETRY—Spring and summer quarters. (Not given 1929-30.) Four hours.

Tennyson and Browning, and the general choir of English poets from 1832 to 1900.

\*126. NINETEENTH CENTURY PROSE—Fall and summer quarters. (Not given 1929-30.) Four hours.

Consideration of the serious prose writing, chiefly critical and literary, of the leaders of thought in the nineteenth century.

\*127. SHAKESPEARE'S COMEDIES—Fall and summer quarters. Four hours.

The life of Shakespeare and a literary study of his comedies, with a proper amount of attention to the method of teaching Shakespeare in high schools.

128. SHAKESPEARE'S HISTORICAL PLAYS—Winter quarter. Four hours.

A continuation of the study of Shakespeare begun in English 127.

129. SHAKESPEARE'S TRAGEDIES—Spring and summer quarters. Four hours.

The completion of the year's work in Shakespeare.

130. ELIZABETHAN DRAMA EXCLUSIVE OF SHAKESPEARE—Fall quarter. Four hours.

A knowledge of the dramatic literature of the early seventeenth century is incomplete without an acquaintance with the contemporaries and successors of Shakespeare from about 1585 to the closing of the theaters in 1642. The principal dramatists, with one or more of the typical plays of each are studied in this course.

\*132. THE DEVELOPMENT OF THE NOVEL—Winter quarter. (Not given 1929-30.) Four hours.

The development, technic, and significance of the novel.

\*Given also by extension.

**\*133. THE RECENT NOVEL—Spring and summer quarters. Four hours.**

The reading of ten typical novels of the past five years for the purpose of observing the trend of serious fiction and of studying the social, educational, and life problems with which the novelists are dealing.

**\*134. MODERN DRAMA—Winter and summer quarters. Four hours.**

Reading and class discussion of plays that best represent the characteristics, thought-current, and the dramatic structure of our time.

**160. THE HISTORY, LITERATURE, AND RELIGION OF THE OLD TESTAMENT—Winter and summer quarters. Four hours.**

This course is a study of the Old Testament from the viewpoint of its historical development. A study is also made of the religion of the Hebrews as it is reflected in their literature. The course includes the early poetical, legal, biographical writings, and the prophets before the Exile period.

**161. THE HISTORY, LITERATURE, AND RELIGION OF THE OLD TESTAMENT—Spring and summer quarters. Four hours.**

This course, continuous with English 160, consists of the consideration of important productions, from the Exile period, through the second century B. C.

## GRADUATE COURSE

## 207. COMPARATIVE LITERATURE

## 208. COMPARATIVE LITERATURE

## 209. COMPARATIVE LITERATURE

## 226. NINETEENTH CENTURY PROSE

## 230. ELIZABETHAN DRAMA EXCLUSIVE OF SHAKESPEARE

## 234. MODERN PLAYS

The six courses listed above, corresponding in content, credit, and time to 107, 108, 109, 126, 130 and 134 afford graduate students opportunities for regular class work and require reading and reports additional to those of the undergraduate students.

**223. RESEARCH IN ENGLISH—Every quarter. Four hours.**

Taken in the first quarter of graduate work.

This is a required seminar and conference course for graduate students who are working on their masters' investigations. The director of educational research meets the group three times each week and confers with individual students in the research office. Small group conferences are held when needed. Each student meets his thesis adviser regularly.

**224. RESEARCH IN ENGLISH—Every quarter. Four hours.**

This is a graduate seminar provided to take up problems in the teaching of English such as require investigation by graduate students working upon theses in the department of English and Literature. The amount of credit depends upon the work successfully completed.

**225. RESEARCH IN ENGLISH—Every quarter. Two hours.**

This is a continuation of English 224.

\*Given also by extension.



FOREIGN LANGUAGE

FIRST YEAR  
Sec. B

Sec. A

Sec. C

Fall	Civ'l. 1 Ed. 1 For. Lang. 1 Phys. Ed. Sci. 1	Art 1 Eng. 4 For. Lang. Hyg. 1 Mus. 25 Phys. Ed.	Civ'l. 1 Ed. 1 Eng. 0 For. Lang. 1 Phys. Ed.	Fall
Winter	Art 1 For. Lang. 2 Minor Mus. 25 Phys. Ed. Sci. 2	Civ'l. 1 For. Lang. 2 Minor Phys. Ed. Sci. 1	Eng. 4 For. Lang. 2 Hyg. 1 Minor Phys. Ed.	Winter
Spring	Eng. 20 For. Lang. 3 Hyg. 1 Phys. Ed. Psych. 2a	Ed. 1 Eng. 20 For. Lang. 3 Phys. Ed. Sci. 2	Art 1 Eng. 20 For. Lang. 3 Mus. 25 Phys. Ed. Sci. 1	Spring

SECOND YEAR  
Sec. B

Sec. A

Sec. C

Fall	Eng. 11 For. Lang. 5 Minor Phys. Ed. Psych. 2b	Eng. 11 For. Lang. 5 Minor Phys. Ed. Psych. 2a	Ed. 10 Eng. 21 For. Lang. 5 Phys. Ed. Sci. 2	Fall
Winter	Ed. 10 Eng. 21 For. Lang. 6 Minor Phys. Ed.	For. Lang. 6 Elective Minor Phys. Ed. Psych. 2b	Eng. 11 Eng. 22 For. Lang. 6 Phys. Ed. Psych. 2a	Winter
Spring	Eng. 22 For. Lang. 7 Hist. 125 Minor Phys. Ed.	Ed. 10 Eng. 21 For. Lang. 7 Minor Phys. Ed.	For. Lang. 7 Minor Phys. Ed. Psych. 2b Teaching 1	Spring

THIRD YEAR  
Sec. B

Sec. A

Sec. C

Fall	Dept. Minor For. Lang. 105 Hist. 126 Minor	Dept. Minor Eng. 22 For. Lang. 105 Hist. 125	Dept. Minor Ed. 10 For. Lang. 105 Minor	Fall
Winter	Dept. Minor Ed. 116 For. Lang. 106 Psych. 105	Ed. 116 For. Lang. 106 Hist. 126 Psych. 105	Ed. 116 For. Lang. 106 Hist. 125 Psych. 105	Winter
Spring	Dept. Minor Elective (2 hrs.) For. Lang. 107 Observ. 1	Dept. Minor Electives For. Lang. 107	Dept. Minor For. Lang. 107 Hist. 126 Minor	Spring

FOURTH YEAR  
Sec. B

Sec. A

Sec. C

Fall	Dept. Minor For. Lang. 131 For. Lang. 205 Teaching 1	Dept. Minor Elective (2 hours) For. Lang. 131 For. Lang. 205 Observ. 1	Dept. Minor For. Lang. 131 For. Lang. 205 Observ. Soc. 105	Fall
Winter	Dept. Minor For. Lang. 132 For. Lang. 206 Soc. 105	Dept. Minor For. Lang. 132 For. Lang. 206 Teaching 1	Dept. Minor Electives For. Lang. 206 Teaching 1	Winter
Spring	Dept. Minor Ed. 111 For. Lang. 207 Teaching 2	Dept. Minor Ed. 111 For. Lang. 207 Soc. 105 Teaching 2	Dept. Minor Ed. 111 For. Lang. 207 Teaching 2	Spring

## FOREIGN LANGUAGES

This department offers courses in French, German, Latin, Spanish, and Italian, and in the teaching of foreign languages. Because of the small demand for Latin and German, one course is offered each year in German and two in Latin. German 1, 2, and 3 alternate with German 5, 6, and 7. Latin 5, 6, 7, and 205, 206, 207 alternate with Latin 55, 56, 57, and 105, 106, 107. French 105 and French 205 are both called advanced French and will be offered in alternate years. Either course may be taken first. The course in foreign language for music majors will alternate with elementary Italian. If music majors desire to take the first quarter or a full year of a four-hour course in French, German, or Italian, they will, of course, be excused from the corresponding quarter of the course in foreign language.

Spanish 1, 2, 3 and 5, 6, 7 and French 1, 2, 3 are offered in the summer quarter, five days each week, classes meeting twice daily, for those who wish to receive a year's credit in beginning foreign language. College credit for beginning foreign language will be given toward graduation only upon the completion of a year's work in the language.

Courses are offered leading to the Bachelor of Arts degree and Master of Arts degree in French, Spanish, and Romance Languages.

### A FOUR-YEAR COURSE OF STUDY IN FOREIGN LANGUAGES

Majors in Foreign Languages are required to distribute their core subjects according to the diagram on page 125. Their departmental subjects should be distributed according to the diagram in the first two years, but in the junior and senior years more liberty is allowed in making the distribution.

In addition to the core subjects listed on page 58, the following courses are required of majors in this department: For. Lang. 1, 2, 3, 5, 6, 7, 105, 106, 107, 131, 132, 205, 206, 207.

The department requires for the bachelor's degree forty-four hours in the language of the major, and a minor twelve to twenty-four hours outside the department. A student may select an additional minor of twenty-four hours within one department. Foreign Language 131 and 132 are required as part of the forty-four hours for the major. In addition to the foreign language requirements, the department requires that the candidate for the Bachelor of Arts degree be proficient also in the English language. The following English courses are required of majors in the foreign languages: English 11 and 20, eight hours. Psychology 105 and Education 116 are also required.

51. FOREIGN LANGUAGE—Italian—Fall quarter. (Not given 1929-30.) Two hours.

For music majors and students desiring ability in oral Italian. Principles of orthography and pronunciation with drill in oral reading and pronunciation. Musical terms and expressions studied.

52. FOREIGN LANGUAGE—German—Winter quarter. (Not given 1929-30.) Two hours.

For music majors and students desiring ability in oral German. Principles of orthography and pronunciation, with drill in oral reading and pronunciation.

53. FOREIGN LANGUAGE—French—Spring quarter. (Not given 1929-30.) Two hours.

For music majors and students desiring ability in oral French. Principles of orthography and pronunciation, with drill in oral reading and pronunciation.

131. THE TEACHING OF ROMANCE LANGUAGES—Fall and summer quarters. Four hours.

Discussion of the place of modern languages in American secondary and college education; a consideration and selection of the most effective methods of teaching modern languages; curriculum, course making, selection of texts and materials; methods of teaching pronunciation; phonetics, grammar, reading, rapid reading, and conversation. Discussion of conduct of the recitation and classroom management. Text: Handschin's Teaching of Modern Languages.

132. PROBLEMS IN THE TEACHING OF ROMANCE LANGUAGES—Winter quarter. Four hours.

Discussion of difficult phases of grammar and syntax, and review of elements of French and Spanish as to presentation in classroom. Study of the technic of teaching literary courses, and the selection of texts for grades classes. The history of the teaching of foreign languages, and a study of methods used in Europe, in comparison with methods used in college and secondary schools in the United States.

223. RESEARCH IN FOREIGN LANGUAGES—Every quarter. Four hours.

Taken in the first quarter of graduate work.

This is a required seminar and conference course for graduate students who are working on their masters' investigations. The director of educational research meets the group three times each week and confers with individual students in the research office. Small group conferences are held when needed. Each student meets his thesis adviser regularly.

224. RESEARCH IN FOREIGN LANGUAGES—Every quarter. Four hours.

A graduate seminar for students working on the master's thesis. Research problems of interest in the field of modern languages and the teaching of modern languages are studied.

225. RESEARCH IN FOREIGN LANGUAGES—Every quarter. Two hours.

A continuation of Foreign Language 224.

#### FRENCH

1. ELEMENTARY FRENCH—Fall quarter. Four hours.

Camerlynck's France, Book I.

2. ELEMENTARY FRENCH—Winter quarter. Four hours.

Camerlynck's France, Book II.

3. ELEMENTARY FRENCH—Spring quarter. Four hours.

Camerlynck's France, Book III.

1, 2, 3. ELEMENTARY FRENCH—Summer quarter. Twelve hours.

The same course content as during the year. The class meets twice daily during the summer quarter, covering the first year's work in College French.

\*5. INTERMEDIATE FRENCH—Fall quarter. Four hours.

A review course in the elements of French. Carnahan's Short Review Grammar.

\*6. INTERMEDIATE FRENCH—Winter quarter. Four hours.

A brief survey of French history as a basis for French literature. Lavissee's Histoire de France.

\*7. INTERMEDIATE FRENCH—Spring quarter. Four hours.

The short story. Buffum's Contes Francais.

105. ADVANCED FRENCH—Fall quarter. (Not given 1929-30.) Four hours.

Classical drama. Corneille's Le Cid, Moliere's Tartuffe, Racine's Andromaque. Readings and lectures on the literary history of the period.

106. ADVANCED FRENCH—Winter quarter. (Not given 1929-30.) Four hours.

The Romantic movement. A study of the works of Hugo and Musset in class with supplementary reading outside.

\*Given also by extension.

107. **ADVANCED FRENCH**—Spring quarter. (Not given 1929-30.) Four hours.

Survey of French poetry from Charles d'Orleans and Villon to contemporary poets.

205. **ADVANCED FRENCH**—Fall quarter. Four hours.

French 105, 106, 107 not a prerequisite. A study of the works of Voltaire and Rousseau.

206. **ADVANCED FRENCH**—Winter quarter. Four hours.

Nineteenth century novel. Balzac and Sand studied in class, and Flaubert and Hugo outside.

207. **ADVANCED FRENCH**—Spring quarter. Four hours.

Twentieth century novel. A study of Anatole France in class, with collateral reading of novels by Bourget, Loti, Rolland, Bazin, and Bordeaux.

### SPANISH

1. **ELEMENTARY SPANISH**—Fall quarter. Four hours.

Hills and Cano's *Cuentos y Leyendas* and Warshaw and Bonilla's *Elements of Spanish*.

2. **ELEMENTARY SPANISH**—Winter quarter. Four hours.

A continuation of the study of grammar in Warshaw and Bonilla. Reading from *Cuentos Contados* by Pittarro and Green.

\*3. **ELEMENTARY SPANISH**—Spring quarter. Four hours.

Finish Warshaw and Bonilla. Reading from and conversation on Padre Isla's *Gil Blas*.

1, 2, 3. **ELEMENTARY SPANISH**—Summer quarter. Twelve hours.

The same course content as during the year. The class meets twice daily during the summer quarter, covering the first year's work in college Spanish.

\*5. **INTERMEDIATE SPANISH**—Fall quarter. Four hours.

A review in the elements of Spanish. Seymour and Carnahan's *Short Review Grammar*. *El Sombrero de Tres Picos* of Alarcon.

\*6. **INTERMEDIATE SPANISH**—Winter quarter. Four hours.

Reading in Don Juan Manuel's *El Conde Lucanor* and the Quintero brothers' *Dona Clarines*.

7. **INTERMEDIATE SPANISH**—Spring quarter. Four hours.

Julio Camba's *La Rana Viajera* and Larra's *Partir a Tiempo*.

105. **ADVANCED SPANISH**—Fall quarter. Four hours.

Romantic drama. Echegaray's *El Gran Galeoto*, Hartzzenbusch's *Los Amantes de Teruel*, and Tamayo y Baus's *Un Drama Nuevo* in class with collateral readings in the period outside.

\*106. **ADVANCED SPANISH**—Winter quarter. Four hours.

Modern drama. Benavente's *La Noche del Sabado*, Martinez Sierra's *Sueno de una Noche de Agosto*, and a play of the Quintero brothers in class, and supplementary readings outside.

\*107. **ADVANCED SPANISH**—Spring quarter. Four hours.

Modern prose and poetry. A study of the works of Ruben Dario, Azorin, and Blasco Ibanez.

205. **GRADUATE SPANISH**—Fall quarter. Four hours.

Nineteenth century prose. A study of the period with readings from Mesonero Romanos, Larra, Galdos, Valdes, Pereda, and Pio Baroja.

206. **GRADUATE SPANISH**—Winter quarter. Four hours.

Golden Age Drama. Plays of Calderon, Lope de Vega, and Alarcon, with lectures and readings on the literary history of the period.

\*Given also by extension.

## 207. GRADUATE SPANISH—Spring quarter. Four hours.

Golden Age prose and non-dramatic poetry. Lazarillo de Tormes, Cervantes' Cuentos Ejemplares, Flores de Poesia de xvi y xvii. The Abencerraje to be read outside of class.

209. } Graduate Spanish, the same as 205, 206, 207. Because the  
 210. } course content will be varied in successive years, Seniors may  
 211. } take Graduate Span. a second time, calling it 209, 210, 211.

## GERMAN

## 1. ELEMENTARY GERMAN—Fall quarter. Four hours.

Vos's Essentials of German.

## \*2. ELEMENTARY GERMAN—Winter quarter. Four hours.

Vos's Essentials of German and Betz's Modern German Reader.

## \*3. ELEMENTARY GERMAN—Spring quarter. Four hours.

Purin and Rose's Deutsche Kulturkunde.

## 5. INTERMEDIATE GERMAN—Fall quarter. (Not given 1929-30.) Four hours.

Popes Writing and Speaking German.

## 6. INTERMEDIATE GERMAN—Winter quarter. (Not given 1929-30.) Four hours.

Nineteenth century novelle. Baumach's Die Nonna, Der Schwiegersonn.

## 7. INTERMEDIATE GERMAN—Spring quarter. (Not given 1929-30.) Four hours.

German lyric poetry.

## LATIN

## \*5. THIRD YEAR LATIN—Fall quarter. Four hours.

Prerequisite two years of Latin. Nepos' Lives.

## 6. THIRD YEAR LATIN—Winter quarter. Four hours.

Prerequisite, two years of Latin. Two of Cicero's Orations: Against Catiline, For Archias.

## 7. THIRD YEAR LATIN—Spring quarter. Four hours.

Prerequisite two years of Latin. Ovid's Metamorphoses.

## 55. FOURTH YEAR LATIN—Fall quarter. (Not given 1929-30.) Four hours.

Prerequisite, two years of Latin. Vergil's Aeneid, book I, and Roman mythology.

## 56. FOURTH YEAR LATIN—Winter quarter. (Not given 1929-30.) Four hours.

Prerequisite, two years of Latin. Vergil's Aeneid, books II, III, IV.

## 57. FOURTH YEAR LATIN—Spring quarter. (Not given 1929-30.) Four hours.

Prerequisite, two years of Latin. Vergil's Aeneid, books V, VI.

## \*105. FIFTH YEAR LATIN—Fall quarter. (Not given 1929-30.) Four hours.

Prerequisite, four years of Latin. Pliny's Letters, and a study of Roman life, using Johnston's Private Life of the Romans.

## 106. FIFTH YEAR LATIN—Winter quarter. (Not given 1929-30.) Four hours.

Prerequisite, four years of Latin. Horace's Odes and Epodes.

\*Given also by extension.

107. FIFTH YEAR LATIN—Spring quarter. (Not given 1929-30.) Four hours.

Prerequisite, four years of Latin. Terence's *Adelphi*.

205. SIXTH YEAR LATIN—Fall quarter. Four hours.

Prerequisite five years of Latin. Tacitus' *Agricola* and *Germania*.

206. SIXTH YEAR LATIN—Winter quarter. Four hours.

Prerequisite five years of Latin. Horace's *Satires* and *Epistles*.

207. SIXTH YEAR LATIN—Spring quarter. Four hours.

Prerequisite five years of Latin. Plautus' *Captivi*.

#### ITALIAN

1. ELEMENTARY ITALIAN—Fall quarter. Four hours.

Wilkins' *First Italian Book*.

2. ELEMENTARY ITALIAN—Winter quarter. Four hours.

Wilkins and Santelli, *Beginner's Italian Reader*.

3. ELEMENTARY ITALIAN—Spring quarter. Four hours.

Italian comedy. Pirandello's *Lumie de Sicilia*, Castelnovo's *O Bere o Affogare*, Testa's *L'Oro e l'Oropello*.

GEOGRAPHY

FIRST YEAR			
Sec. A	Sec. B	Sec. C	
Fall	Civ'l. 1 Ed. 1 Elective Phys. Ed. Sci. 1	Art. 1 Elective Eng. 4 Hyg. 1 Mus. 25 Phys. Ed.	Fall
Winter	Art 1 Mus. 25 Phys. Ed. Sci. 2	Civ'l. 1 Geog. 7 Geog. 10 Phys. Ed. Sci. 1	Winter
Spring	Electives (6 hours) Hyg. 1 Observ. 1 Psych. 2a Phys. Ed.	Ed. 1 Minor Elective Phys. Ed. Sci. 2	Spring

SECOND YEAR			
Sec. A	Sec. B	Sec. C	
Fall	Geog. 8 Minor Phys. Ed. Psych. 2b Teaching 1	Geog. 8 Observ. 1 Elective Phys. Ed. Psych. 2a	Fall
Winter	Art 1 Ed. 10 Geog. 11 Minor Phys. Ed.	Geog. 11 Minor Phys. Ed. Psych. 2b Teaching 1	Winter
Spring	Eng. 22 Geog. 15 Geog. 50 Hist. 125 Phys. Ed.	Ed. 10 Elective Eng. 21 Geog. 15 Phys. Ed.	Spring

THIRD YEAR			
Sec. A	Sec. B	Sec. C	
Fall	Geog. 100 Geog. 199 Hist. 126 Minor	Eng. 22 Geog. 100 Geog. 199 Hist. 125	Fall
Winter	Ed. 116 Geog. 104 Geog. 105 Minor	Eng. 1 Geog. 104 Geog. 105 Hist. 126	Winter
Spring	Elective Eng. 105 Geog. 103 Observ. 1 Psych. 105	Eng. 2 Geog. 103 Minor Elective	Spring

FOURTH YEAR			
Sec. A	Sec. B	Sec. C	
Fall	Geog. 102 Geog. 113 Minor Teaching 2	Ed. 116 Geog. 102 Geog. 113 Observ. 1 Psych. 105	Fall
Winter	Elective Geog. 124 Soc. 105	Elective Geog. 113 Geog. 124 Teaching 2	Winter
Spring	Ed. 111 Elective Geog. 123 Minor	Ed. 111 Geog. 123 Hist. 2 Teaching 2	Spring

### A FOUR-YEAR COURSE OF STUDY IN GEOGRAPHY

Majors in Geography are required to distribute their core subjects according to the diagram on page 131. Their departmental subjects should be distributed according to the diagram in the first two years, but in the junior and senior years more liberty is allowed in making the distribution.

In addition to the core subjects listed on page 58, the following Geography courses are required of majors in this department: Geog. 7, 8, 100, 102, 103, 104, 105, 113, 123, 124, 199, and one of the following: Geog. 10, 11, 15, 50. A minor of twenty-four hours must be selected.

History and Sociology are suggested minors that may be elected with geography.

#### \*7. BUSINESS GEOGRAPHY.—Winter and summer quarters. Four hours.

This course is primarily designed for commercial education majors but will be of value as an elective for those engaged in elementary or secondary school work. It covers a wide field, including such problems as production areas, trade routes, commercial reasons for the location of cities, and the displacement of river by railway traffic.

A study will be made of commercial products in the college and departmental museums. Field trips will be made to industrial plants of the community.

The effect of climate, health, social traditions, race, and nationality upon the business development of the various parts of the world will be emphasized.

All of the subject matter of this course will be professionalized and regarded from the viewpoint of the use that is to be made of it later by the students who take it.

#### 8. HUMAN GEOGRAPHY—Fall quarter. Four hours.

The great divisions of mankind from the racial standpoint will be taken up. After a short discussion of primitive man with especial reference to prehistoric relics of the same in America the great major divisions of mankind are taken up.

The negro is the first of these considered. The negro race is divided into five main groups: (1) Guinea negro; (2) African Bushman; (3) African Pygmy; (4) Negrito of the East Indies; (5) Melanesian.

The second main group considered will be that of the Mongol. The Mongol race is divided into (1) the Northern Mongol; (2) the Southern Mongol; (3) Oceanic Mongol or Malay; (4) Boreal Mongol or Eskimo; (5) American Mongol or Indian. The Mestizo, or half-breed problem, in Latin American countries will be discussed.

The white group is divided into (1) Nordic race; (2) Mediterranean race; (3) Alpine race; (4) Dinaric race; (5) Armenian race; (6) Ainu race; (7) Polynesian race.

A study will be made of the various blends of the above races that make up the various European nationalities. The problems of pro-Nordic propaganda; American immigration, and the racial geography of United States will be discussed.

This course is of value to those directly interested in the social sciences and to others as a general cultural course. It will be a lecture course interspersed with discussions in class and library readings.

#### 10. METHOD AND MATERIALS IN GEOGRAPHY FOR THE INTERMEDIATE GRADES—Fall, winter and summer quarters. Four hours.

This two quarter course covers in a rapid cursory survey the courses formerly called Geography of North America, Geography of Europe, Geography of Asia, Geography of Australia and Geography of Africa. Of necessity this material is not covered in nearly as much detail as in the regional courses. However, it is hoped to give the intermediate major a background in geography which, when supplemented by reading at the time of teaching, will give a geographic knowledge that is sufficient for a person not a departmental teacher of geography. The material in this course is professionalized subject matter adapted to the needs of intermediate grade teachers.

#### 11. METHOD AND MATERIALS IN GEOGRAPHY FOR THE INTERMEDIATE GRADES—Winter and spring quarters. Four hours.

A continuation of Geography 10.

\*Given also by extension.



**\*15. METHODS AND MATERIALS FOR TEACHING JUNIOR HIGH SCHOOL GEOGRAPHY—Fall, spring, and summer quarters. Four hours.**

This course stresses mainly the problem aspects of geography. Some of the main topics treated are: effect of the Appalachian barrier on industry and history; effect of the Mississippi River on nineteenth century American industry and history; effect of the Panama Canal on American trades; effect of the Hudson Bay R. E. and sea route in development of the Canadian wheat fields of the northwest. Conservation of our forests and its economic and social effects; geographic distribution of immigrants in U. S. and causes for the distribution; England as an island and the political and social effects of its insular position; France's position between Latin, Moslem, and Teutonic cultures and the social effects of this position; rise of modern industrial Germany and geographic forces at work in this rise; Spain turns its back on Europe and looks toward Africa—effect of this position. Australia's famous experiment in colonizing the tropics with white people; Hawaii—the crossroads of the Pacific; Problems of old and new China; Japanese island position, its effect upon her culture, industry and social structure; the racial geography of India and the caste system; the Turkish renaissance; Soviet Russia in Europe and Asia; the resources of Brazil; American adaptation to South American conditions.

**50. HOME GEOGRAPHY AND GEOGRAPHY OF COLORADO—Every quarter. Four hours.**

This course is designed for primary majors and aims to give them the proper background and materials for teaching home geography as a means of introducing the child to the field of geography. Emphasis is placed upon the method of comparing the home environment with other typical localities. Extensive field trips are taken in the immediate locality. Insofar as it is possible the geography of Greeley and vicinity is used as a basis for Colorado geography.

**100. GEOLOGY—Fall quarter. Four hours.**

The main emphasis in this course is upon historical geology. It is felt that this particular phase of geology is of most value to the students of our school and the needs to which they put geology. The work in historical geology is illuminated by geological folios especially those which have to do with Colorado geology. Where possible a pupil is assigned a folio that treats of his own particular home locality. Pupils are also encouraged in their travels home, in this state, or to other states to work up by United States geological folios or state reports a cursory knowledge of the geology en route. Several field trips are taken during the term.

The historical geology is treated from the standpoint particularly of climates of the past and the more or less general progressive evolution toward dryer and more continental conditions in the later geological ages. The realm of historical geology is prefaced by a discussion of the various theories of the earth's origin and an attempt is made to tie up the earlier geological ages with the planetesimal hypothesis.

**101. GEOGRAPHY AND GEOLOGY OF MOUNTAINS—Spring quarter. Four hours.**

This is a course in which the dynamic phases of mountain making and the types of mountains in the world are first based on a study of the Colorado mountains. After these have been studied as types the mountains most nearly related to them in structure are studied. Not only are the geologic aspects of mountains taken up but the geographic phases as well as climate, vegetation, timber line, animal life, mineral deposits, people and their life and other distinctive features peculiar to mountain districts.

**102. THE CHANGING WEATHER—Fall quarter. Four hours.**

A course in the study of weather and its effect upon human activities. An attempt will be made to base this course upon observational and map work rather than upon the textbook. Thermographic and barographic observations will be kept. The Denver and Washington weather maps as well as the Australian weather map will be studied. Out-of-doors study of clouds and other meteorologic phenomena will be made.

If possible, the class will make one trip to the Denver weather bureau to familiarize themselves with the technic of the weather bureau and the instruments used. Each member of the class will keep, during the course, an observation sheet recording temperatures, precipitation, wind direction, relative humidity and state of sky. Observational work on conditions with reference to particular types of storms, like chinook, norther, etc., will be made.

\*Given also by extension.

**\*103. CLIMATOLOGY—Spring quarter. Four hours.**

This course deals with an attempt to divide the world into a series of type climates, as follows: Oregonian, Californian, Alaskan, Polar, Canadian, Nevadan, Coloradoan, Arizonan, Mississippian, Appalachian, Caribbean, Amazonian, Floridan, Monsoon.

The plan is to study these climates intensively insofar as they are represented in the United States. This will include products and crops that are particularly a product of one of these climatic provinces. For example the Californian climate with its winter rain and summer dry condition produces almonds, olives and grapes. Then we can search elsewhere for a similar climate so far as temperatures and seasonal distribution of rainfall are concerned, feeling that it will probably produce the same or similar products.

This course will include extensive work in graphs or charts as this is necessary in making comparative studies of this type clear. It is not necessary to take Geography 102 as a prerequisite for this course.

**104. OCEANOGRAPHY—Winter and summer quarters. Four hours.**

This course presents the following topics and problems; (1) Extent of the ocean basins; (2) depth of the ocean basins; (3) submarine plateaus; (4) vulcanism and the ocean basins; (5) continental shelves; (6) movements of the ocean floor; (7) chemical composition of ocean water; (8) pressure of ocean water; (9) temperature of the ocean water; (10) general circulation of ocean water; (11) ocean currents; (12) effects of ocean currents on temperature; (13) effects of ocean currents on precipitation; (14) plant life on ocean; (15) animal life of the surface; (16) animal life of the ocean depths; (17) animal life on the shore lines; (18) animal life that migrates from salt to fresh water, or fresh to salt water; (19) artificial propagation and transplantation of ocean animals; (20) value of marine life as food; (21) great food fishes of the world; (22) methods of preserving fish for consumer; (23) needs for larger fish consumption; (24) uses of marine life other than as food; (25) the ocean as a highway; (26) steam and sail transportation; (27) great circle routes; (28) the Diesel engine and its revolution of the fuel problem; (29) interocean canals; (30) airplane, dirigible, and ocean transportation

**105. PHYSIOGRAPHY—Winter quarter. Four hours.**

The work in this course is divided between topographic work which embraces a study of topographic and geologic maps, and, as far as possible, field trips to type regions. Three weeks of the twelve are devoted to the rudiments of mathematical geography and meteorology necessary for an understanding of physiography. This course covers phases of geographic geology not treated in Geography 100, as for instance (1) a study of common minerals and rocks; (2) glaciation; (3) stream action; (4) work of ground water; (5) work of volcanoes.

This course is a good foundation for much of the work given in elementary science and furnishes an excellent background for history and other geography courses.

**\*113. MATHEMATICAL GEOGRAPHY—Fall quarter. Four hours.**

This course is primarily designed for mathematics, physics, and geography majors, but others may elect it. There is no mathematical prerequisite.

The following topics are presented: (1) proofs of the earth's rotation and revolution; (2) tides; (3) latitude and longitude; (4) standard time belts; (5) international date line; (6) map projection; (7) contour maps; (8) pilot charts; (9) tellurions; (10) fourth dimension; (11) calendar. A brief popular discussion of the Einstein theory forms part of the course.

**123. PLANT GEOGRAPHY—Spring quarter. Four hours.**

The geographic distribution of plants as determined by climate and soil. The great world plant provinces are taken up in this course. The following are some of the ones treated: (1) selvas, or tropical rainy forest; (2) savanna, or park-like landscape in the tropics; (3) monsoon forest; (4) tropical thorn forest; (5) tropical scrub; (6) hot interior tropical deserts; (7) tropical sea coast deserts; (8) warm temperate regions with summer rain; (9) warm temperate region with winter rain; (10) steppe; (11) sage brush; (12) temperate deciduous forest; (13) pine barrens; (14) coniferous forest or taiga; (15) N. Pacific coast coniferous forest; (16) wet prairie; (17) fens; (18) downs; (19) moors; (20) peat bogs; (21) tidal flats; (22) Alpine meadows; (23) Alpine fell fields; (24) Alpine lichen zones.

The greenhouse and the campus enable us to show first-hand some of the characteristic plants which in their structure show adaptations to the environment in which the species has been formed. The lantern is also much employed for illustrative material in this course.

\*Given also by extension.

**124. ZOOGEOGRAPHY—Winter and summer quarters. Four hours.**

The geographic distribution of animals as determined by climate, land barriers, soil, ocean currents, distribution of plant food and other factors. In animals mobility makes the problem a different one than that of plants. Ocean barriers usually loom larger as barriers and climate is a less effectual barrier.

Wallace's animal provinces and Hart Merriam's life zones are largely the bases upon which animal life of the world is divided into separate provinces.

The museum and the lantern are the main aid to the book work in this course. The paleogeography of the animal world will be stressed as an aid in understanding present distribution.

**160. FIELD GEOGRAPHY OF GLACIER AND RAINIER NATIONAL PARKS AND ALASKA—Summer quarter. (Given by extension only.) Three hours.**

The students in this course visit Thermopolis Hot Springs, Wyoming; Glacier National Park, Montana; Mount Rainier, Washington, and then embark on a steamer for the coastal district of southern Alaska. In Alaska, in addition to visiting Ketchikan, Taku Glacier, Juneau, Skagway, Sitka, and Wrangell, the party goes into the interior across the coast range as far as Lake Bennett in the Yukon headwaters. The chief geographic and geologic features of the regions visited are treated in lectures on the ground.

**162. GEOGRAPHY OF THE TROPICS—Winter quarter. Four hours.**

The following are some of the topics treated in this course: (1) insolation and the tropics; (2) tropical temperatures—daily, seasonal and aperiodic; (3) rainfall zones in the tropics; (4) soils of the tropics; (5) tropical plant life with reference to variety of species and provinces; (6) tropical animal life; (7) native races of the tropics; (8) selective influences upon native races; (9) tropical diseases and progress toward their elimination; (10) tropical products used in the temperate zones; (11) problems of white exploitation of the tropics; (12) acclimatization of the white man in the tropics; (13) Australia's experiment with white men in the tropics; (14) the tropics as a future frontier for the temperate zone; (15) laboratory products as a substitute for tropical products; (16) governmental problems in the tropics; (17) religious questions of the tropics; (18) the tropics and missionaries. Following are some of the resources called upon to illuminate the work of this course: magazines, daily newspapers, museum specimens, zoological and commercial; pictures, greenhouse, campus vegetation in spring and summer, school garden.

**170. GEOGRAPHY OF POLAR REGIONS AND ALASKA—Spring quarter. Four hours.**

Some of the topics considered in this course are: the mathematical geography of the polar region circles; length of day and night; seasons; Arctic Ocean basin; factors governing the climate of polar regions; plant life of land in polar regions; plant life of sea in polar regions; animal life of land and sea; human life as a response to land conditions (Lapland); human life as a response to sea conditions (Greenland); mineral resources of polar lands; food resources of polar lands; polar lands as a future resource—coal power; polar lands and aviation routes; regional discussion of polar regions.

**194. GEOGRAPHIC INFLUENCES IN AMERICAN HISTORY—Spring quarter. Four hours.**

This course takes up the geographic factors that have controlled, to a certain degree, the trend of American history. The drowned river valleys of the eastern coast, the fall line, the Appalachians and their water gaps, the Mississippi and Ohio, the Great Plains, the Rockies, the Great Basin and Puget Sound will be some of the units treated from this viewpoint.

**199. CONSERVATION OF NATIONAL RESOURCES—Fall and summer quarters. Four hours.**

Among the topics considered under this head are water power, soil, metallic mineral deposits, non-metallic mineral deposits, coal and its by-products, giant power and coal, conservation of fresh-water life, conservation of shore life in salt water, conservation of wild life, conservation of forests, conservation of valuable national traits of character, conservation of natural beauty.

There are extensive library readings and the class work is of lecture-discussion type.

HISTORY AND POLITICAL SCIENCE

		FIRST YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Fall	Civ'l. 1	Art 1		Civ'l. 1	Fall	Fall
		Ed. 1	Eng. 4		Ed. 1		
		Hist. 1	Hist. 1		Eng. 0		
Winter	Winter	Phys. Ed.	Hyg. 1		Hist. 1	Winter	Winter
		Sci. 1	Mus. 25		Phys. Ed.		
			Phys. Ed.				
Spring	Spring	Art 1	Civ. 1		Elective or Minor	Spring	Spring
		Elective or Minor	Elective or Minor		Eng. 4		
		Hist. 2	Hist. 2		Hist. 2		
Fall	Fall	Mus. 25	Phys. Ed.		Hyg. 1	Fall	Fall
		Phys. Ed.	Sci. 1		Phys. Ed.		
		Sci. 2					
Winter	Winter	Elective or Minor	Ed. 1		Art 1	Winter	Winter
		Hist. 3	Elective or Minor		Ed. 1		
		Hyg. 1	Hist. 3		Elective or Minor		
Spring	Spring	Observ. 1	Phys. Ed.		Hist. 3	Spring	Spring
		Phys. Ed.	Sci. 2		Mus. 25		
		Psych. 2a			Phys. Ed.		
Fall	Fall				Sci. 1	Fall	Fall
Winter	Winter					Winter	Winter
Spring	Spring					Spring	Spring

		SECOND YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Fall	Hist. 5	Hist. 5		Ed. 10	Fall	Fall
		Phys. Ed.	Observ. 1		Eng. 21		
		Pol. Sci. 1	Phys. Ed.		Hist. 5		
Winter	Winter	Psych. 2b	Pol. Sci. 1		Phys. Ed.	Winter	Winter
		Teaching 1	Psych. 2a		Sci. 2		
Spring	Spring	Ed. 10	Hist. 6		Eng. 22	Spring	Spring
		Eng. 21	Phys. Ed.		Hist. 6		
		Hist. 6	Pol. Sci. 2		Observ. 1		
Fall	Fall	Pol. Sci. 2	Psych. 2b		Phys. Ed.	Fall	Fall
			Teaching 1		Psych. 2a		
Winter	Winter					Winter	Winter
Spring	Spring					Spring	Spring

		THIRD YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Fall	Hist. 126	Eng. 22		Ed. 10	Fall	Fall
		Major Elective	Hist. 125		Major Elective		
		Minor	Major Elective		Minor		
Winter	Winter	Minor	Minor		Pol. Sci. 1	Winter	Winter
Spring	Spring	Elective	Hist. 126		Hist. 125	Spring	Spring
		Major	Major Elective		Minor		
		Minor	Minor		Pol. Sci. 2		
Fall	Fall	Ed. 116 or 210	Ed. 116 or 210		Ed. 116 or 210	Fall	Fall
Winter	Winter					Winter	Winter
Spring	Spring					Spring	Spring

		FOURTH YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Fall	Elective	Elective		Hist. 117	Fall	Fall
		Hist. 117	Hist. 117		Minor		
		Minor	Minor		Psych. 110 or 214		
Winter	Winter	Teaching 2	Observ. 2		Soc. 105	Winter	Winter
Spring	Spring	Minor	Minor		Observ. 2	Spring	Spring
		Pol. Sci. 101	Pol. Sci. 101		Minor		
		Psych. 110 or 214	Psych. 110 or 214		Pol. Sci. 101		
Fall	Fall	Soc. 105	Teaching 2		Elective	Fall	Fall
Winter	Winter					Winter	Winter
Spring	Spring					Spring	Spring

## HISTORY AND POLITICAL SCIENCE

This department offers courses in the two fields, history and political science, of such nature that they meet the needs of teachers in elementary and high schools. The courses are arranged to cover the materials and methods which are most helpful in presenting the subjects of history, civics, and the social sciences. The new courses in social science are based very largely upon history and political science. Opportunities for election are ample to give superior preparation for the teaching of such courses.

The increasing interest in civics and citizenship training is marked. All phases of governmental activity are growing in importance. These features of our experience are reflected in the school programs. The courses offered are all chosen from fields that are of most value to teachers in the public schools. The new and growing subjects are represented as well as the more traditional selections of subject matter.

### A FOUR-YEAR COURSE OF STUDY IN HISTORY AND POLITICAL SCIENCE

Majors in History are required to distribute their core subjects according to the diagram on page 136. Their departmental subjects should be distributed according to the diagram in the first two years, but in the junior and senior years more liberty is allowed in making the distribution.

In addition to the core subjects listed on page 58, the following courses are required of majors in the department: Hist. 1, 2, 3, 5, 6, 7, 13, 102, 117. Pol. Sci. 1, 2, 101, 102, and twelve hours of history and political science selected by the student to meet his own anticipated need.

Variations from this program will be necessary in cases of students who expect to take the Limited Certificate before completing the requirements for the degree. Such variations and substitutions must be approved by the department. Ordinarily History majors will not be required to take History 125 and 126 which are listed as core requireds in case they have followed the above course.

In addition to the above a total of sixteen hours of sociology, economics and geography should be elected. Such elections should be made in consultation with the student's departmental adviser.

Students will also be expected to select at least one minor in addition to political science in which they should secure a minimum of twelve hours.

### HISTORY

\*1. ORIGINS OF AMERICAN NATIONALITY, 1600-1800—Every quarter.  
Four hours.

Social and economic conditions at the close of the first century of colonization; types of colonial government; relations with the mother country; the development of self-government; conquest of French North America; new schemes of imperial control; causes of the Revolution; finances; the loyalists; formation of a permanent government; establishing the new government.

\*2. DEVELOPMENT OF AMERICAN NATIONALITY, 1800-1865—Every quarter.  
Four hours.

Consolidation of the new west; the tariff controversy; financial readjustment; removal of the Indians beyond the Mississippi; westward expansion; Jacksonian democracy; the slavery controversy; secession and civil war; saving the Union; foreign relations; economics of the Civil War.

\*Given also by extension.

**\*3. RECENT AMERICAN HISTORY, 1865 to the present time—Spring quarter. Four hours.**

Problems of reconstruction; radical ideas in congress; the negro problem in the south; carpet bag rule; rebuilding of political parties; railroad and commercial expansion; the United States as a world power; the new era of industrial consolidation; regulating industry; Roosevelt and Wilson Americanism; the world war; financial, economic and social reconstruction.

**4. WESTERN AMERICAN HISTORY—Winter quarter. Four hours.**

Sophomore year.

The westward movement as an historical process. Causes which lead to migration from the eastern states. The occupation of the region between the Alleghenies and the Mississippi. The land policy of the United States. Reaction of the west upon national policies. Expansion into Florida, Louisiana, and the Oregon country. Acquisition of Texas and California. Discovery of gold in California and Colorado and the resultant gold rush. Settlement of Utah, and special features of the history of Colorado. Coming of the new west and passing of the old frontier conditions.

**5. EARLY MODERN EUROPE—Fall quarter. Four hours.**

Phases of the later medieval period that vitally affected the development of the nations of western Europe. The development of important nations and the commercial revolution. The Reformation with its results upon both Catholic and Protestant churches. National and religious rivalry in the seventeenth and eighteenth centuries. Growth of democratic ideas of government. Causes leading to the French revolution. The revolutionary and Napoleonic eras in Europe with their resultant political, social and economic changes.

**\*6. MODERN EUROPEAN HISTORY—Winter quarter. Four hours.**

This is a continuation of Course 5. The Congress of Vienna and its attempt to restore Europe to what it was before the French revolution. The new balance of powers. Continued growth of democracy. Social and political results of the spread of the industrial revolution. New spirit of radical socialism. Conflict between the new and the old ideas of science and religion. Continued growth of political democracy. Rise of Russia, Prussia, and Italy as important national states. Renewed colonial expansion, and the national rivalries that resulted from it. The Balkans and their problems. Break-up of the balance of power. New alliances. The world war. Versailles and since.

**\*7. RECENT EUROPEAN HISTORY—Spring quarter. Four hours.**

This is a continuation of courses 5 and 6. Some of the main topics considered are: Colonial imperialism with its expansion into Asia and Africa; rivalry for markets; growth of international labor organizations; realignment of powers; the break-up of Turkey; the world war; the series of conventions, and treaties following the war; the new nations of Europe; the League of Nations and World Court; economic, industrial, social, and political readjustments; Europe's present relations with the United States.

**\*10. SOCIAL AND INDUSTRIAL HISTORY OF THE UNITED STATES—Every quarter. Four hours.**

This course traces first of all the economic and industrial development of the United States from colonial times to the present. In addition it includes a description of the changes in home life, in industry, in modes of transportation, and in general social conditions that have accompanied the economic changes. Some of the topics treated in considerable detail are: the natural resources; the influence of cheap land; the effect of invention, machinery, and science; the development of agriculture and manufacture; the rise of the great industries; capitalism, business combination, and labor organization; the efforts of labor to better conditions; economic and social adjustment since the world war.

**13a, 13b. TEACHING OF HISTORY AND CIVICS IN THE ELEMENTARY SCHOOL—Spring and summer quarters. Two hours.**

These courses are similar in general plan; 13a is planned for the primary and intermediate, and 13b for the upper intermediate grades. Each course deals with the historical development of history instruction; the aims and values of history in the schools; materials and methods of handling them in the various grades; various types of presentation; testing of results; the relation of history and civics to other subjects.

In 13a special attention is given to a detailed study of the materials for history instruction in grades 1 to 6; in 13b the material commonly found in grades 5 to 8.

\*Given also by extension.

**27. CONTEMPORARY HISTORY—Summer quarter. Two hours.**

This course deals with the world problems that have developed since the world war. Topics are selected that are of current interest and studied in the light of their historical development. These topics vary from year to year. Each year brings in some new problems that are pressing for solution and sees others eliminated that have temporarily been adjusted. Topics are selected from events in the United States, in South America, in Asia, and in Europe that touch the Americans in some important way. Much use will be made of current periodicals.

**\*101. COMMERCIAL AND FINANCIAL HISTORY OF THE UNITED STATES—Spring quarter. Four hours.**

English commerce, its ideals, its regulation, and its effect upon colonial development on the continent of America. Chief characteristics of colonial commerce. Effect of the Revolution upon American trade. Encouragement of commerce by the new national government. Currency and banking reforms and their effect upon the trade of the United States. Effect of foreign relations upon the growth of shipping, foreign trade, and domestic commerce. The Civil War and its effect upon manufacturing, foreign commerce, currency and banking, and our carrying trade. Consolidation and government supervision. New adjustments that came with the world war and the commercial consequences that have followed. This course is especially designed to meet the needs of those who are expecting to teach commercial courses.

**102. ANCIENT SOCIAL HISTORY, GREECE AND THE ORIENT—Summer quarter. Four hours.**

This is a survey of the development of society among ancient peoples. Examples will be chosen from the social and legal codes of the Hebrews, the Assyrians, and the Egyptians. Special attention will be given to houses, temples, religious ideas, clothing, furniture, social customs, slavery, and the position of women in the above nations and in Greece and Rome. The Greek colonies. Reasons for a conflict between Greece and Persia. Athenian and Spartan civilization. Social and educational conditions at Athens at the time of Pericles. The Alexandrian conquests and the spread of Greek civilization and culture. The post-Alexandrian Greek culture.

**103. THE LITERATURE OF AMERICAN HISTORY—Summer quarter. Two hours.**

A survey of the materials available for the study of American history in the public schools; the chief collections of source materials, the more important general accounts; biography; bibliographical aids; special and local histories; textbooks and their authors; the selection of a good working library.

**\*107. THE BRITISH EMPIRE—Summer quarter. Four hours.**

The acquisition of the great colonies; commercial relations prior to 1800; development of self-government; missionary movements of the nineteenth century; secret diplomacy and expansion in Asia and Africa; India; the empire in Africa; the empire during the world war; efforts to bring about improved imperial organization.

**117. THE TEACHING OF HISTORY AND CIVICS IN JUNIOR AND SENIOR HIGH SCHOOLS—Fall and summer quarters. Four hours.**

The development of instruction in these subjects in high school; their place in the high school program; aims and values of instruction; problems connected with the teaching of these subjects; the relation between history and civics teaching. Modern courses of study; evaluating results. Prerequisite, one content course in History.

**125. CONTRIBUTIONS OF THE ANCIENT AND MEDIEVAL WORLD TO MODERN CIVILIZATION—Fall quarter. (Not given 1929-30.) Four hours.**

This is an orienting course of senior college grade. It seeks to explain to students how the ancient and medieval worlds existed, their ideals, their customs, their outstanding personalities and their permanent influence upon later civilization. Lectures, discussions, reports and extensive reading.

**126. THE EXPANSION OF EUROPEAN CIVILIZATION IN MODERN TIMES—Winter quarter. (Not given 1929-30.) Four hours.**

This is a continuation of 125. It seeks to explain how the modern nations have come to develop in the particular form that they have, their national aspirations and ambitions for the future. The development overseas in America, Asia and Africa of European civilization and the problems that have developed as a result of such expansion. Emphasis will be laid upon leading personalities and upon those elements of European civiliza-

\*Given also by extension.

tion that have left permanent contributions for the modern world or permanent ulcers for the world to attempt to cure.

**202. ANCIENT SOCIAL HISTORY, ROME AND WESTERN EUROPE—Summer quarter. Four hours.**

The rise of Rome, its control over the Mediterranean regions, occupations, religious ideas, effect of slavery, methods of taxation, roads, commerce, marriage, divorce and general social life of the early Roman Empire; some of the causes of national decay. This course deals especially with concrete material that high school instructors find most difficult to teach in the courses in Ancient History and World History. It also includes material most largely drawn upon for courses in the grades.

**203. THE REFORMATION—Winter quarter. Four hours.**

This is one of the most illuminating periods in modern history. No other course explains so many things and controversial questions that are still acute among modern churches. Some of the topics covered are: actual conditions in the medieval Catholic church at the close of the fifteenth century; the abuses and the need for reform; the earlier critics of the church; the religious effect of the Renaissance in Germany; the growth of a sense of nationalism in Germany; the rise of national churches; Luther and his attack upon indulgences; popularity of the revolt and its appeal to various classes in Germany; attempts to compromise the issue; theological contributions of Calvin and Zwingli; the reformation in England, France and Scandinavia; efforts of the papacy and the empire to remove the worst abuses in the church; the Council of Trent and its definition of doctrine and its reform decrees; the new spirit at Rome; the Jesuits and other reforming and missionary organizations; the Index and the Inquisition; the rise of puritanism; the growth of modern protestant sects and their relation to the Reformation; frequent reference will be made to the phases of the Reformation that are still in progress.

**205. MEDIEVAL LIFE AND INSTITUTIONS—Fall quarter. Four hours.**

This course deals with those phases of medieval life that have been most permanent, are of most interest to teachers in the public schools, and are most difficult for teachers to master unaided. Some of the topics included will be social and industrial life; relations of lords to each other, to their serfs, and to their overlords; rise of cities; beginnings of commerce; the medieval church; medieval learning, schools and colleges; administration of justice; art and architecture.

**206. THE FRENCH REVOLUTION—Summer quarter. Four hours.**

This is a detailed study of the great revolutionary epoch in European history. Some of the important topics considered are: the monarchy under Louis XVI; the various classes of nobles and clergy with their special privileges; the bourgeoisie or middle class of the towns; the peasants and their burdens; the methods of taxation and feudal exactions; the growth of criticism and revolutionary literature; the bankruptcy of the monarchy and the calling of the Estates General; the assumption of power by the Third Estate; the struggle for control of the monarchy; the Paris mob and its influence; the effect of attempted foreign intervention; the reign of terror; constitutional changes and the democratic revolution; the contest with monarchical Europe; explosive influence of the Revolution in other portions of Europe; French governmental, social, political, and educational reconstruction; the advent of Napoleon; changed direction of the Revolution; the republic becomes an empire.

**208. THE AMERICAN REVOLUTION—Fall and summer quarters. Four hours.**

This course will include a careful study of the relationship—governmental, social, economic, and political—existing between the American colonies and the British government; the development of self-government; the beginning of a permanent Indian policy; judicial procedure and the judicial disallowance of colonial legislation; the commercial legislation affecting the colonies; colonial and British ideas of representation; the causes of the Revolution. Much use will be made of source materials.

**209. SLAVERY, SECESSION, CIVIL WAR, AND RECONSTRUCTION, 1850-1870—Winter quarter. Four hours.**

This is a detailed library course. The general conditions of slave life and the slavery system. The great compromises made in 1850. Operation of the Fugitive Slave Law. Effect of the slavery agitation upon political parties. Repeal of the Missouri Compromise. The Dred Scott Decision and its effect upon political ideas. Lecomptonism and the fight of Douglas to retain his leadership in the Democratic party. The election of 1860. Secession. Problems of the war; getting a fleet, foreign relations, financial troubles, emancipation, developing our man-power, effects of the blockade. Conditions in the south after the war. The ideas of freedom among the negroes. Problems of reconstruction. State labor legislation in the south.



Conflict between the executive and congress. Carpet bag rule and what it meant. Actual processes of reconstruction. Resumption of white supremacy in the governments of the southern states.

216. LATIN-AMERICAN HISTORY—Spring and summer quarters. Four hours.

A course designed to furnish a background for understanding the growing relations between the United States and the republics to the south. In tracing the experiences of the Latin-American people, attention is given to the work of Spain, to the securing of independence, to the social, political, and economic growth, to international relations and the Monroe Doctrine, to Panama, and the purchase of the Danish West Indies, and to the new Pan-Americanism.

221. HISTORY OF THE FAR EAST—Spring quarter. Four hours.

This course is designed to enable teachers to understand the problems of the Far East. It includes a survey of the modern history of Japan and China; the growth of western ideas; the development of Japan as a first-class power; the conflict of interest in China; Japan's ambitions and their relation to our own interests. The development of self-government in China and its difficulties. It also includes a survey of British occupation in India; the relation of the British to the native races; economic, industrial and educational reforms in India and their results; the growth of self-government; and the national aspirations of the people of India. Throughout this course the relation of these various problems to the United States is emphasized.

223. RESEARCH IN HISTORY—Every quarter. Four hours.

Taken in the first quarter of graduate work.

This is a required seminar and conference course for graduate students who are working on their masters' investigations. The director of educational research meets the group three times each week and confers with individual students in the research office. Small group conferences are held when needed. Each student meets his thesis adviser regularly.

224. RESEARCH IN HISTORY—Every quarter. Four hours.

Students doing graduate work in the fields of History or Political Science may arrange for time and topics as may be desired. Research problems of interest to such students both in the field of subject matter and methods of instruction will be taken up for consideration. Students working on masters' theses in the department will enroll for this course.

225. RESEARCH IN HISTORY—A continuation of 224. Two hours.

300. SEMINAR IN THE TEACHING OF HISTORY—Offered on Request. Two to four hours.

This course will offer opportunity for the special study and investigation of selected topics in the teaching of history in elementary schools, high schools, and teacher-training institutions. Open only to graduate students.

### POLITICAL SCIENCE

\*1. GOVERNMENT OF THE UNITED STATES—Fall and summer quarters. Four hours.

A detailed study of the origin of the federal government; the selection and powers of the president; congress and its relations to the other departments; the federal judiciary; conduct of elections; the actual work of the national government; foreign relations; the preservation of peace and the enforcement of law; the police power and social legislation; relations to the state and local governments.

\*2. STATE GOVERNMENT—Winter quarter. Four hours.

The relation of state government to the national government. Common features of state constitutions. The field of state legislation. Operation of the state government and its importance to the individual. The enforcement of laws. Local government and its significance to the individual. State and local finances. Popular participation in governmental activities. Sources of information for a study of state and local government. Plans for making state and local government more efficient. Colorado government will be used constantly for illustrative purposes, although the work will be equally valuable to students from other states.

3. MUNICIPAL GOVERNMENT—Spring quarter. (Not given 1929-30.) Four hours.

The growth of cities; their relation to trade and industry; state control over cities; the development of the American city; services to the people;

\*Given also by extension.

city planning; the commission form of government; the city manager; other recent movements.

**\*101. HISTORY OF THE FOREIGN POLICIES OF THE UNITED STATES—Summer quarter. Four hours.**

Few good Americans are well informed on the foreign relations of their own country. In the past such relations were not an important part of current political discussion. That day is past. Now there is a growing demand for information upon this subject. Americans are not going to remain longer ignorant of such a vital part of their history. In the near future school courses in American History will be revised so as to give much more space to this phase of our national experience. With the present agitation for good relations with all nations, this course acquires unusual value. Teachers should know the real contributions of the United States to a better international world order. They should also understand the great foreign problems of their country in the immediate future. Some of the important topics treated are:

Foreign relations under the Federalists; establishment of an American foreign policy; Jefferson and the acquisition of Louisiana; arbitration of boundary disputes; the Monroe Doctrine; the open-door policy; co-operation with other powers in the settling of international problems in Asia, Africa, and Europe; control of immigration; the Hague Conferences; diplomatic organization and procedure; the recognition of new governments; the World Court; the League of Nations; the Washington Conference.

**\*102. INTERNATIONAL RELATIONS—Summer quarter. Four hours.**

In this course there is a study of the principles governing the relations of civilized nations, which includes the problems of citizenship, the position of aliens and of alien enemies, the rights of nations with respect to war, neutrality, and intervention, the regard for treaties, American ideals, Pan-Americanism, and the League of Nations.

**203. POLITICAL SCIENCE THEORY—Summer quarter. (Not given 1930). Four hours.**

This is an introduction to the principles governing the various political organizations. The theories and forms of government, constitutions, and ideals of citizenship are included. The course should be of special interest and value as explanatory of the current political thought relative to democracy and to the radicalism that is expressed in bolshevism and communism and the various phases of internationalism.

---

\*Given also by extension.

HOME ECONOMICS

		Sec. A	FIRST YEAR Sec. B	Sec. C			
Fall	Winter	Spring	Civ'l. 1 Ed. 1 H. E. 1 H. E. 7a Phys. Ed. Sci. 1	Art 1 Eng. 4 H. E. 1 H. E. 7a Hyg. 1 Mus. 25 Phys. Ed.	Civ'l. 1 Ed. 1 Eng. 0 H. E. 1 H. E. 7a Phys. Ed.	Fall	
			Art 1 H. E. 2 Mus. 25 Phys. Ed. Phys. 10 Sci. 2	Civ'l. 1 H. E. 2 Phys. Ed. Phys. 10 Sci. 1	Eng. 4 H. E. 2 Hyg. 1 Phys. Ed. Phys. 10		Winter
			Chem. 3b H. E. 3 H. E. 24 Hyg. 1 Phys. Ed. Psych. 2a	Chem. 3b Ed. 1 H. E. 3 H. E. 24 Phys. Ed. Sci. 2	Art 1 Chem. 3b H. E. 3 H. E. 24 Mus. 25 Phys. Ed. Sci. 1		

		Sec. A	SECOND YEAR Sec. B	Sec. C			
Fall	Winter	Spring	Chem. 1 H. E. 21 H. E. 25 Phys. Ed. Psych. 2b	Chem. 1 H. E. 21 H. E. 25 Phys. Ed. Psych. 2a	Chem. 1 H. E. 21 H. E. 25 Phys. Ed. Sci. 2	Fall	
			Bact. 100 Ed. 10 Eng. 21 H. E. 22 Phys. Ed.	Bact. 100 H. E. 22 Phys. Ed. Psych. 2b Teaching 1	Bact. 100 Eng. 22 H. E. 22 Phys. Ed. Psych. 2a		Winter
			Eng. 22 H. E. 7b H. E. 23 Hist. 125 Phys. Ed.	Ed. 10 Eng. 21 H. E. 7b H. E. 23 Phys. Ed.	H. E. 7b H. E. 23 Observ. 1 Phys. Ed. Psych. 2b		

		Sec. A	THIRD YEAR Sec. B	Sec. C			
Fall	Winter	Spring	H. E. 27 H. E. 106 Hist. 126 Observ. 1	Eng. 22 H. E. 27 H. E. 106 Hist. 125 Observ. 1	Ed. 10 H. E. 27 H. E. 106 Teaching 1	Fall	
			Elective H. E. 102 H. E. 103 Teaching 1	H. E. 102 H. E. 103 Hist. 126 Teaching 1	Eng. 21 H. E. 102 H. E. 103 Hist. 125		Winter
			Electives H. E. 107 Observ. 2 Psych. 103	Electives H. E. 107 Psych. 103	Eng. 22 H. E. 107 Hist. 126 Psych. 103		

		Sec. A	FOURTH YEAR Sec. B	Sec. C			
Fall	Winter	Spring	Ed. 116 H. E. 125 Minor Teaching 2	Ed. 116 H. E. 125 Minor Observ. 2	Ed. 116 H. E. 125 Minor Soc. 105	Fall	
			H. E. 132 H. E. 140 Minor Soc. 105	H. E. 132 H. E. 140 Minor Teaching 2	H. E. 132 H. E. 140 Minor Observ. 2		Winter
			Ed. 111 Elective H. E. 124 Teaching 2	Ed. 111 H. E. 124 Minor Soc. 105	Ed. 111 H. E. 124 Minor Teaching 2		

## HOME ECONOMICS

This course has as its purpose the setting up of high standards for guidance in the choice of shelter, in the selection of food, clothing, and other necessities of life. To promote the health, contentment, and advancement of citizens of our land is no mean object to be engaged in, and well-trained home economics teachers are here prepared to participate fully in this life work.

To those interested in choosing a minor in home economics the courses numbered 5, 24, and 125 are particularly offered. These courses are dress appreciation, elementary nutrition, and child care.

Many courses in the department are open to others than majors.

### A FOUR YEAR COURSE OF STUDY IN HOME ECONOMICS

Majors in Home Economics are required to distribute their core subjects according to the diagram on page 143. Their departmental subjects should be distributed according to the diagram in the first two years, but in the junior and senior years more liberty is allowed in making the distribution.

In addition to the core subjects listed on page 58, the following courses are required: 1, 2, 3, 7a, 7b, 21, 22, 23, 24, 25, 27, 102, 103, 106, 107, 124, 125, 132, 140. A minor of not less than twelve hours is required.

1. **PATTERN DESIGNING**—Fall and summer quarters. Two or four hours.

At least two hours are required of all freshman majors.

Purpose: (1) to enable students to cut any pattern they need; (2) to teach the modification of any bought pattern either for different sizes of figures or for varying styles of ornamentation; (3) to assist students in costume cutting; (4) to teach the correct effects versus the grotesque effects of lines in garments as caused by pattern cutting; (5) to insure economy of goods by use of exact patterns (paper costs less than silk goods); (6) to develop latent talent for design in students; (7) prerequisite to dressmaking.

The course begins with a study of the dress forms, and the planes of the body whose measurements determine bust, waist, hips, etc. The vertical measurements and prevailing silhouette are made plain. Student measures are taken. Patterns are cut for ideal figures, and for individual figures. The work is taught in such a manner as to serve the most practical uses. Correct position of waist lines, becoming length of skirts, and neck lines to suit the face of the wearer are all observed. Patterns from this course are saved to use in the course following.

2. **TEXTILES**—Winter quarter. Four hours.

Required as a prerequisite to all of the clothing work for majors. Other students are welcomed into the course, which is worthwhile to all who must select household fabrics of any kind. The hygienic qualities of various fabrics are stressed.

This course provides opportunity to study all of the commonly used fibers, and to examine critically fabrics that are found in every household and in most of our wardrobes. "Your money's worth" in fabrics may mean more money for other necessities. The study of ways of producing fabrics helps determine the quality, finish, possible adulteration, and relative costs. The course includes lectures, laboratory, and field work. Twenty-four is a full class.

3. **GARMENT MAKING**—Spring and summer quarters. Four hours.

H. E. 2 should precede this course. The fundamentals of plain sewing are taught as they should be presented in senior high school. Undergarments or sleeping garments are completed in the first half of the quarter; a light weight, wool flannel dress, the second half of the quarter. This course also consists of a study of the proper methods of storage of clothing, underwear, hats, shoes, gloves, and dresses; seasonal storage of furs; how to take care of clothes; cleaning various fabrics; ways of removing stains; mending and darning of all wearing apparel; suggestions for remodeling clothes; the plan for a workable clothing budget for a college girl; shopping tours in which shopping manners are practiced, showing courtesy and consideration to the clerks; homemade versus ready-made garments; rules for home sewing, including alteration of pattern, cutting, basting, and fitting garments with application of types of seams to garments; finishing and pressing garments. Illustrative material for teaching is made in this course.

#### 4. ELEMENTARY DRESSMAKING—Fall and summer quarters. Four hours.

This course is open to those who can do simple sewing. Limited to twenty.

The purpose of the course is (1) to give the student some knowledge of the teaching of clothing; (2) to distinguish between fashion and style; (3) to recognize real needs as opposed to imaginary needs; (4) to analyze, from all angles, exact needs, and to buy accordingly; (5) to appreciate the steps in production of a good garment; (6) to count the cost of individual time spent at home in making a garment as compared to cost of similar ready-made garment; (7) to develop standards of workmanship; (8) to develop enough skill to aid in economy and appreciation of clothing; (9) the correct dress of a teacher.

Steps taken: (1) selection of color, line, and fabric; (2) adapting pattern to material; cutting garment; (3) the making of a tailored sport dress in suitable silk fabric (this is entirely a machine problem); (4) the teaching of the use of all attachments of the sewing machine, and the preparation of illustrative material for teaching. This course proves to students their ability to select and make as chic a garment as they can buy, and still have money left for other uses.

#### 5. DRESS APPRECIATION—Fall quarter. Four hours.

This course is open to all college students. It gives a practical working knowledge of the following points concerning clothing: (1) the clothing needs of a young woman on entering college; (2) the allowance justified; (3) the choice of fabrics suited to climate, season, use, circumstances, and individual; (4) testing fabrics for value; (5) shopping trips to compare prices; (6) psychology of dress given as preliminary to several lessons; (7) the part dress plays in self confidence, social advancement, business success, conduct, and activity; (8) the cost of producing a good ready to wear garment; (9) the wholesale marketing of garments; (10) the retail marketing of garments; (11) the cost of producing a homemade garment; (12) substitutions to be made for economy's sake—cotton for linen, woolsens for worsted, artificial silks for silks, cotton underwear for silk; (13) the art of wearing clothing—charm, grace, and beauty; (14) clothing for various occasions; (15) colors to choose, and to avoid; (16) line for the individual; (17) accessories of dress; (18) finesse in buying clothes, and the value of a budget as a check on extravagance.

#### 7a. HOUSEHOLD MANAGEMENT THEORY—Fall, spring and summer quarters. Two hours.

This course may be taken any time, preferably before the junior year. Open to anyone who is interested.

Purposes: (1) to train in the scientific principles concerned in administering a household; (2) to give some insight into conditions and problems of home making from the economic aspect; (3) to develop an appreciation of time values in discharging efficiently the duties of the homemaker; (4) to give a working knowledge of the food needs of the family; (5) to learn to regard homemaking as a profession well worth the time, energy, and thought some men put on their part of earning the salary. The course includes a job analysis, time studies, motion studies, step-saving, labor-saving, scheduling, account-keeping, budget-making, marketing, storage problems, menu-making, and other equally important house-keeping duties.

H. Sc. 21, 22, and 23 are planned as consecutive courses.

#### 7b. PRACTICAL APPLICATION OF 7a, 21, 22, 23, AND OTHER COURSES—Every quarter. Two hours.

Aims: (1) to emphasize the relation of food to health; (2) to improve the student's own food habits; (3) to study food products from the standpoints of production, manufacturing processes, composition, nutritive value, digestibility, cost, food legislation, and marketing problems; (4) to develop the principles of cookery as applied in the preparation of typical dishes; (5) to develop habits of accuracy, neatness, and a certain amount of manipulative skill; (6) to study principles and methods of food preservation; (7) to study all available fuels and laboratory equipment; (8) to observe manufacturing processes and sanitary standards through field trips to local food factories and markets; (9) to plan, prepare, and serve well-balanced meals; (10) to develop appreciation for the aesthetic aspects of food preparation and service.

#### 21. FOODS AND COOKERY—Fall and summer quarters. Four hours.

Fee, \$3.00.

Special emphasis is placed on the selection and principles involved in the preparation of many types of foods; food preservation; familiarization with the use and care of laboratory equipment and with all available fuels and cooking equipment as gas, electric and kerosene ranges, the fireless and pressure cookers.

**22. FOODS AND COOKERY—Winter quarter. Four hours.**

Fee, \$3.00.

More complicated cooking processes are undertaken; emphasis is placed on the economic phases of food problems. Food legislation is studied.

**23. COOKERY AND SERVING—Spring quarter. Four hours.**

Fee, \$3.50.

The types of food prepared in this course include more difficult combinations and require a greater degree of manipulative skill. Practice is given in the planning and serving of well-balanced meals at given costs per capita. The social and aesthetic phases of food service are stressed.

**24. ELEMENTARY NUTRITION—Fall, winter, and summer quarters. Four hours.**

Purposes: (1) to give the student a background of the subject matter of nutrition; (2) to train students so that they will be more able to recognize and deal with nutritional problems that might arise in their future teaching; (3) to develop an appreciation of the contribution of food to the diet; (4) to give the student the fundamentals of the school lunch problem; (5) to acquaint the student with the treatment of certain diseases thru diet; (6) to train in methods of teaching nutrition to children.

Topics: assimilation of food in the body; the use of food to give heat and energy, as a body builder, as a body regulator; contribution to the diet made by various types of food materials; construction of an adequate diet for the growing child and the normal adult; methods of training children's food habits; planning the school lunch; methods of teaching nutrition to children; use of food as a prophylactic; dietary treatment of certain diseases.

**25. COOKERY AND TABLE SERVICE FOR HOMEMAKERS—Spring and summer quarters. (Not given 1929-30.) Four hours.**

Fee, \$3.50. A course for non-majors. No prerequisites.

Aims of course: (1) to give some knowledge of the fundamental processes of cookery through the preparation of typical dishes, chosen on the meal basis plan; (2) to give instruction in table service.

Content: dishes suitable for the various meals are prepared with emphasis upon the nutritive needs of the family group. The table service includes a breakfast, luncheon, dinner and afternoon tea.

**26. ORIENTATION IN HOME ECONOMICS—Spring quarter. Two hours.**

A guide to students who are not familiar with the field open to students of the subject. A means of directing those who choose at random their sequence of studies.

**27. OBSERVATION AND METHODS FOR THE ELEMENTARY CLASSES IN HOME ECONOMICS—Every quarter. Two hours.**

A course presenting methods of teaching elementary home economics. Organization of subject matter, planning lessons, and observing actual teaching with subsequent comments and discussions. Special methods for specific problems. Illustrative materials developed and worked into lesson plans.

**100. MILLINERY—Spring and summer quarters. Four hours.**

Fee, \$2.50. Open to anyone interested in hatmaking.

The object of this course is (1) to teach the selection and appreciation of appropriate, comfortable, and becoming millinery; (2) to teach discrimination in values; (3) to enable students to make or alter hats for economy's sake; (4) to prepare to teach such principles of hat making as the high school students would need to know.

The course includes (1) a study of shapes as related to faces, figures, fabrics, and uses; (2) a study of color as suited to individuals, uses, seasons, etc.; (3) the measuring, cutting, shaping, and adapting of designs to members of the class; (4) making of simple, soft hats of fabrics in season and in style—such as felt, velvet, and braids; (5) the construction of molds, making bows, platings, cabochons, buckles, and other types of trimming. Renovation of materials.

**101. ADVANCED TEXTILES—Winter and summer quarters. Four hours.**

Purpose: (1) to give an appreciation of some of the world's famous textiles and the part they have played in the histories of peoples; (2) to broaden the background of knowledge of students who have had few contacts with museums and art collections; (3) to dignify, in the eyes of students, rugs, draperies, tapestries, block prints, fine upholstery materials, appliques, etc.; (4) to develop an appreciation of the work of our early

colonial and present mountain weavers. The course opens with a brief review of textiles, and arts and crafts of all ages. Those textiles that represent the finest era in all ages are dwelt upon. Illustrations and examples are studied and written about. These include rugs, laces, tapestries, prints, and embroideries. In addition to this study, furs, leather goods, and the recent developments in silks are to be considered. Collections will be made of illustrative materials.

**102. CHILDREN'S CLOTHES AND APPLIED DESIGN—Fall and summer quarters. Four hours.**

This course stresses the importance of the selection or adoption of appropriate designs to the garment or household linens under discussion. Color, texture, price, and fashion all enter into the problems undertaken.

All household linens with questions relative to their finishes and ornamentation are taught. Designs are made for specific pieces and are started in class, to be completed at leisure. Children's clothes are planned and made of popular fabrics with correct applied designs.

**103. COSTUME DESIGN—Fall and summer quarters. Four hours.**

Fee, 50 cents. Open to all students.

Purpose: (1) to teach the application of art principles to the choice and making of clothes; (2) to lead students to consider carefully the expenditure of their own means; (3) to study silhouettes, as well as features and coloring in determining what they shall wear; (4) to determine the effects of certain lines, colors, fabrics and finishes in their own and others' costumes; (5) to learn what should be worn for such occasions as they are likely to attend; (6) to consider the costume as a whole, not neglecting minute details; (7) to prepare them to teach others some part of the problem. The course includes a brief survey of costumes of all times as they have influenced or expressed the morals and manners of all ages. The present types of dress and their designers are considered and compared with the most artistic of all times. Line, color, fabric, accessories and their effects are applied to individual problems. Specific problems are sought and solved. Designs are made to suit the members of the class, and to suit various occasions. The wardrobes for various ages and stations in life are planned.

**104. HOUSING AND HOUSE SANITATION—Winter and summer quarters. (Not given 1929-30.) Two or four hours.**

Open to anyone.

The purpose of this course is (1) to give an appreciation of the importance of good housing in relation to citizenship; (2) to develop ideals of what constitutes a safe and livable house; (3) to recognize the individual's responsibility in demanding houses whose standard will measure up to other American ideals. Emphasizing problems of heating, lighting, ventilating, and disposing of waste in the house is the latter half of this course.

The brief history of the house and housing is meant to insure an appreciation of present conveniences and comforts. A comparison is made of rural and town conditions, with suggestions of ways and means of bettering the country problem. The cost of owning and operating a standard house as compared with renting a similar structure is made vivid by collection of local costs and comparisons. The restrictive and constructive local laws relating to property are examined and analyzed. Houses are visited, and score cards are filled with observations of differences. Problems relating to heat, light, ventilation, plumbing, and refrigeration are studied and demonstrated. Costs and care are studied.

**105. ADVANCED DRESSMAKING—Winter quarter. Four hours.**

Fee, 50 cents.

The purpose of this course is to increase the student's confidence in her ability to make one of her best dresses at a cost that is less than half she would have to pay for a similar garment that does not compare in quality. Into this work she brings the training of all her previous courses of design and sewing. Care is taken that the costume as a whole is planned with accessories to match so as to insure unity throughout.

Because the garment in question does not offer an opportunity to learn a number of the customary finishes to fine dresses, a preliminary practice on these finishes is given in materials that enable the student to copy almost any type of dress. The practice materials are valuable as illustrative materials in her teaching.

**106. HOME CARE OF THE SICK—Fall and summer quarters. Four hours.**

Fee, \$1.00.

This course is open to all senior college students. The purpose of the course is to enable students to adapt such means as are at hand in most homes to meet emergencies of illness or accident; to learn the essential facts in regard to prevention, as well as care in sickness, and to make peo-

ple more sensible and careful about matters pertaining to health; choice and preparation of room and bed, also atmosphere, temperature, and ventilation of room; changing bed of helpless patient with fresh bed linen; bed sores, cause, prevention, and care; care of mouth, teeth, and hair; care and management of sick room—care of flowers, how to handle visitors, etc.; different kinds of baths and how to give them; different kinds of enemas and how to give them; different kinds of poultices and how to apply them; the home medicine closet and articles included; making of home appliances; care of contagious diseases; care of small children; care of the aged patient; and the tray and the preparation of food for the invalid and convalescence tray.

**107. HOME DECORATION—Spring and summer quarters. Four hours.**

The application of art principles to interior decoration. This course includes practice problems met with in the everyday home of small means, as well as in some of the more pretentious homes. The idea of avoiding the stereotyped home, decorated according to a rule of thumb, is kept in mind. Ideas of expressing personality, and domestic or social qualities in one's surroundings are the ambition of this course.

Various rooms are taken up in turn, each to be studied with regard to its finish, its furnishing and its arrangement. The making and hanging of curtains is studied, as well as the framing and hanging of pictures and mirrors. Bric-a-brac and other means of adding notes of color to a room are included. The arrangement and care of flowers for decoration are considered. A trip is made to Denver where the large stores arrange rooms especially for this class and have experienced decorators to display rugs, draperies, and other objects of interest.

**108. THE HOMEMAKER AS BUYER OF FOOD, CLOTHING, AND HOUSEHOLD FURNISHINGS—Spring quarter. (Not given 1930.) Four hours.**

The idea in presenting this course is to teach the homemaker household economies as a means to making better homes and contented homemakers. There will be several sections in the course; one will relate to fuels and foods; one to textiles and clothing; the third to furnishings and equipment. It is hoped this course will benefit students, as well as homemakers.

**121. EXPERIMENTAL COOKERY—Fall quarter. (Not given 1929-30.) Four hours.**

Fee, \$5.00. Prerequisites: H. E. 21, 22, and 23.

Aims: (1) to give the student an appreciation of the field of food research work; (2) to give some training in the technic of food research problems; (3) to make comparative studies of fuels in a quantitative way; (4) to study the efficiency of various types of kitchen equipment; (5) to study and compare the value of cookery processes and methods; (6) to make comparative studies of some standard food products.

Content: discussions and laboratory work to carry out the above aims.

**123. DEMONSTRATION COOKERY—Winter quarter. Four hours.**

Fee, \$3.50. Prerequisites: H. E. 21, 22, and 23.

Aims: (1) to broaden the student's experience by affording an extensive range of applications; (2) to increase skill in technic; (3) to increase self-confidence; (4) to fit students to do community work as demonstrators.

Content: (1) types of demonstrations; (2) opportunities in field of demonstration; (3) characteristics and training essential to demonstrator; (4) problems the demonstrator has to face; (5) observation of demonstrations; (6) practice in demonstrations.

**124. DIETETICS—Spring and summer quarters. Four hours.**

Fee, \$3.00. The completion of chemistry is prerequisite.

Aims, to consider (1) the nutritive values of carbohydrates, fats, proteins, ash constituents, and vitamins; (2) the digestive process; (3) metabolism; (4) physiological requirements of individuals throughout all age periods; (5) principles which govern the choice of food under varying conditions such as age, occupation, health, and disease; (6) to give practice in planning and preparing dietaries for individuals and for family groups.

Content, a study of the subject matter included in the above aims. Dietaries are planned and prepared to meet the needs of individuals from infancy through old age, also family dietaries which fulfill the requirements of each member with consideration as to cost.

**125. CHILD CARE AND CHILD WELFARE—Spring and summer quarters. Four hours.**

Aims: (1) to give an appreciation of the significance and responsibilities of parenthood; (2) to give a subject matter foundation for the physical care of infants and children; (3) to point out the larger social



aspects of the child welfare movement; (4) to discuss methods for conducting child welfare work in home, school, and community.

Content: (1) parental and pre-parental education; (2) significance of heredity and eugenics; (3) prenatal care; (4) infant care; (5) child care; (6) nutrition work in schools; (7) problems in organizing and conducting school lunches; (8) organizations, agencies, and legislation concerned with child welfare work; (9) child care courses in elementary and secondary schools.

**126. THE SCHOOL LUNCH AND CATERING—Fall and summer quarters. (Not given 1929-30.) Four hours.**

Fee, \$3.50. Open to all students, especially rural school teachers.

Aims: (1) to prepare teachers to meet the situations in small or rural communities where children's lunches are a problem; (2) to teach large quantity cookery and serving so the teacher in any system may assist in social functions that are a part of all school programs; (3) to prepare the teacher to aid the mothers in selecting proper lunches for children who must bring lunches to school.

Procedure: (1) determining how many may be served from definite quantities of food; (2) making floor plans for banquet tables; (3) listing and arranging the dishes, silver and linens needed to serve a definite number; (4) organizing functions of varying and increasing difficulty or size, with menus, order lists, floor plans and serving directions, decorations and costs; (5) serving different types of meals, from the school lunch to afternoon tea, the formal dinner, the banquet; (6) lunch boxes and home lunches are included as picnic occasions presented to classes.

**132. THE HOME—Winter quarter. (Not given 1929-30.) Four hours.**

Open to any student.

The purpose: (1) to distinguish a home from a house; (2) to set up some minimum essentials for the successful homemaker; (3) to analyze the complex problems that every family faces and see if there is not some help available in studies of these problems; (4) the American home in the near future; (5) values to be retained; (6) how can we retain them. A study of sources of help available to every family. Case studies of family relationships and analysis of their problems. Remedies suggested by philosophers, educators, and economists. The American's god (\$) compared to simple living with a purpose. Setting up ideals of home worthy of our age and our country.

**140. METHODS OF TEACHING HIGH SCHOOL HOME ECONOMICS—Winter quarter. Four hours.**

This course is open only to home economics majors.

The purpose: to familiarize students with the best sources of help in the work; to discuss problems common to the work and suggest means of solution; to review the ground covered by the pathfinders and subsequent workers, pointing out possible developments in future; to familiarize them with general and specific objectives as well as means of securing these in their teaching; to teach methods of curriculum construction—working out a definite course of study that will apply to a given locality; to consider the related subjects of a curriculum as a means of clarifying their subject; to consider professional growth as an obligation of a teacher; to visit classes and schools as a source of suggestion and questions. These goals are approached by means of lectures, reports, surveys, discussions, readings and trips to schools and classes.

**223. RESEARCH IN HOME ECONOMICS—Every quarter. Four hours.**

To be taken in the first quarter of graduate work.

This course is a required seminar and conference course for students who are working on their masters' theses. The director of educational research meets the students three times a week for conference.

**224. RESEARCH IN HOME ECONOMICS—Every quarter. Four hours.**

This is the thesis course for masters candidates in Home Economics in the second quarter of their graduate work.

**225. RESEARCH IN HOME ECONOMICS—Every quarter. Two hours.**

A continuation of Home Economics 224.

## INDUSTRIAL EDUCATION

FIRST YEAR			
	Sec. A	Sec. B	Sec. C
Fall	Civ'l. 1 Ed. 1 Ind. Ed. Req. Phys. Ed. Sci. 1	Art 1 Eng. 4 Hyg. 1 Ind. Ed. Req. Mus. 25 Phys. Ed.	Civ'l. 1 Ed. 1 Eng. 0 Ind. Ed. Req. Phys. Ed.
Winter	Art 1 Elective Ind. Ed. Req. Mus. 25 Phys. Ed. Sci. 2	Civ'l. 1 Elective Ind. Ed. Req. Phys. Ed. Sci. 1	Elective Eng. 4 Hyg. 1 Ind. Ed. Req. Phys. Ed.
Spring	Hyg. 1 Ind. Ed. Major Observ. 1 Phys. Ed. Psych. 2a	Ed. 1 Ind. Ed. Major Ind. Ed. Req. Phys. Ed. Sci. 2	Art 1 Ind. Ed. Major Ind. Ed. Req. Mus. 25 Phys. Ed. Sci. 1
SECOND YEAR			
	Sec. A	Sec. B	Sec. C
Fall	Ind. Ed. Major Ind. Ed. Req. Phys. Ed. Psych. 2b Teaching 1	Ind. Ed. Major Ind. Ed. Req. Observ. 1 Psych. 2a Phys. Ed.	Ed. 10 Eng. 21 Ind. Ed. Req. Phys. Ed. Sci. 2
Winter	Ed. 10 Eng. 21 Ind. Ed. Major Ind. Ed. Req. Phys. Ed.	Ind. Ed. Major Ind. Ed. Req. Phys. Ed. Psych. 2b Teaching 1	Eng. 22 Ind. Ed. Req. Observ. 1 Phys. Ed. Psych. 2a
Spring	Eng. 22 Hist. 125 Ind. Ed. Minor Ind. Ed. Req. Phys. Ed.	Ed. 10 Eng. 21 Ind. Ed. Minor Ind. Ed. Req. Phys. Ed.	Ind. Ed. Minor Ind. Ed. Req. Phys. Ed. Psych. 2b Teaching 1
THIRD YEAR			
	Sec. A	Sec. B	Sec. C
Fall	Elective or Minor Hist. 126 Ind. Ed. Major Ind. Ed. Req.	Ed. 116 Eng. 22 Hist. 125 Ind. Ed. Minor	Ed. 10 Elective or Minor Ind. Ed. Minor Ind. Ed. Req.
Winter	Ed. 116 Elective Ind. Ed. Major Ind. Ed. Req.	Elective Hist. 126 Ind. Ed. Minor Ind. Ed. Req.	Elective Hist. 125 Ind. Ed. Minor Ind. Ed. Req.
Spring	Ind. Ed. Major Minor Observ. 2 Psych. 105	Elective or Minor Ind. Ed. Major Ind. Ed. Req. Minor	Hist. 126 Ind. Ed. Major Ind. Ed. Req. Minor
FOURTH YEAR			
	Sec. A	Sec. B	Sec. C
Fall	Elective Ind. Ed. Major Ind. Ed. Req. Teaching 2	Elective or Minor Ind. Ed. Req. Observ. 2 Psych. 105	Ed. 116 Elective Ind. Ed. Req. Soc. 105
Winter	Elective Ind. Ed. Major Ind. Ed. Req. Soc. 105	Elective Ind. Ed. Major Ind. Ed. Req. Teaching 2	Elective Ind. Ed. Req. Observ. 2 Psych. 103
Spring	Ed. 111 Elective Elective Ind. Ed. Minor	Ed. 111 Elective Ind. Ed. Req. Soc. 105	Ed. 111 Elective Ind. Ed. Req. Teaching 2

## INDUSTRIAL EDUCATION

The aim of the department is to prepare teachers for the public schools and teachers colleges and supervisors in the field of industrial education.

The curriculum is varied, giving the student an understanding of practical and technical phases in the field of his major interest and the broader historical and philosophical background for the better understanding and interpretation of the teaching processes.

Emphasis is placed on the major industrial interests that have found a place in the curricula of the public schools of the nation. The college has a superior complete public school unit, in which college students may observe and teach industrial work, under supervision. The department has a complete shop equipment and teachers for technical courses listed on the following pages.

### A FOUR-YEAR COURSE OF STUDY IN INDUSTRIAL EDUCATION

Majors in Industrial Education are required to distribute their core subjects according to the diagram on page 150. Their departmental subjects should be distributed according to the diagram in the first two years, but in the junior and senior years more liberty is allowed in making the distribution.

In addition to the core subjects listed on page 58, the following courses are required of majors in the department:

This department requires from seventy to seventy-six hours to fulfill the requirement for a bachelor of arts degree in industrial education.

All industrial education majors are required to take Industrial Education 5, 104, 119, 126, and at least eight hours in each of the following industrial fields: drafting, metal working, woodworking, printing, and bookbinding.

All students majoring in the department are required to select a minor of at least twelve quarter hours in some other department, a departmental major of twenty to twenty-four hours and a departmental minor of sixteen to twenty hours from the fields listed below.

#### DRAFTING

Industrial Education 10, 11, 12, 13, 105, 117, 118.

#### METAL WORKING

Industrial Education 8a, 8b, 109a, 109b, and 4 hours in art.

#### WOODWORKING

Industrial Education 1, 2, 14, 19, 103, 107, 121.

#### BOOKBINDING

Industrial Education 41a, 41b, 41c, 143a, 143b, 144a, 144b.

#### PRINTING

Industrial Education 31, 33, 34, 36, 132, 133, 136.

#### 1. CONSTRUCTIVE WOODWORKING I—Fall and spring quarters. Four hours.

Fee, \$2.00.

This course is so arranged as to fill the needs of both majors in industrial education and those taking the work as an elective. The course embraces both theoretical and practical phases of the subject.

#### 2. CONSTRUCTIVE WOODWORKING II—Winter quarter. Four hours.

Fee, \$2.00.

This course is a continuation of Constructive Woodworking I and leads the student into more advanced problems, both practical and technical.

**5. INDUSTRIAL EDUCATION—Fall quarter. Four hours.**

In this course problems are centered around the education of workers who are to enter industrial pursuits. Such problems as the placing of industry in general education, historical background, junior high school, practical arts and industrial courses, unit trade courses, and continuation courses are discussed.

**8a. ART METAL I—Fall and spring quarters. Two or four hours.**

Fee, \$2.00.

This course is planned as an introductory course in copper and brass work as it may be introduced into the public school. The work is planned so as to suggest minimum and more extensive equipment and point out some of the possibilities of such a course in public schools. The purpose of the technical phases of the course is to make clear methods and processes that may be applied in the working out of simple artistic problems. In general, the problems of equipment, materials, and their use in design, etching, piercing, bending, shaping, planishing, and raising are considered.

**8b. ART METAL II—Winter quarter. Two or four hours.**

Fee, \$2.00.

The general topics discussed and technically worked out are similar to those worked out in the first course. Emphasis is placed on the correlation of metal work and design showing the possibilities and limitations of design as applied to soft metals. A discussion of the commercial forms of copper and alloys of copper such as brass, aluminum, bronze, german silver and their possibilities in craft work. The technical work involves simple problems in etching, soft soldering, lapping, bending, saw-piercing, annealing, seaming, raising, planishing, outline chasing, recessing, hard-soldering, and coloring.

**10. PRINCIPLES OF DRAFTING—Fall quarter. Two or four hours.**

Fee, \$1.00.

The course is planned to show that drawing is a language to express and record ideas and information necessary for the building of machines and structures by outline alone, giving exact and positive information regarding the work to be executed. The course is planned to present the technic of expression through the use of drawing instruments in the accurate laying out and executing of problems in lettering, geometric construction, orthographic projection, pictorial representation, developed surfaces, dimensioning, and working drawing.

**11. PROJECTION, SHADE, AND SHADOW—Winter quarter. Four hours.**

Fee, \$1.00.

The purpose of this course is to give a working knowledge of the fundamentals of orthographic projection, that is, the planes of projection, the projection of points, lines, surfaces and solids on the coordinate and auxiliary planes. The subject of shade and shadow as an application of orthographic projection, in the use of conventional pictorial methods, showing its advantages, disadvantages, and limitations in drawing.

**12. PRINCIPLES OF ARCHITECTURAL DRAWING I—Winter quarter. Four hours.**

Fee, \$1.00.

The characteristics of architectural drawing, kinds of drawings, preliminary sketches, and display drawings, as embodied in a working drawing of a simple frame structure, which includes the general considerations, plan of site, floor plans, framing plans, laying out of plans, methods of sectioning; detailed drawings, details of building construction, different forms of foundation, floor, and wall construction for buildings with and without basement; special features, the use of symbols, the correct dimensioning of drawings as used in building construction, notes and specifications, and the types of lettering commonly used in architectural drawings are some of the problems commonly discussed and technically worked out in this course.

**13. PRINCIPLES OF ARCHITECTURAL DRAWING II—Spring quarter. Four hours.**

Fee, \$1.00.

This course is a continuation of Principles of Architectural Drawing I, but deals with the designing of buildings for public purposes and includes framing for larger building, detail of plans for large opening, slow burning, and fireproofing structures, ventilation, heat, light, general arrangement of the building for the purpose intended; city ordinance demands regarding walls, door openings, fire escapes; specification and a pictorial representation in pencil of the structure proposed.

**14. CARE AND MANAGEMENT—Fall quarter. Two or four hours.**

This course is designed to train students to care for, repair, and adjust hand and power tools used in woodworking.

**19. WOODTURNING—Winter quarter. Four hours.**

Fee, \$2.00.

The aim of this course is to give the students a knowledge of the woodworking lathe, its care, use, and possibilities. Different types of problems will be solved, that is, cylindrical work, working to scale, turning duplicate parts, and assembling, the making of handles and attaching them to the proper tools. Special attention will be given to the making of drawings of a kind used in woodturning.

**31. ELEMENTS OF PRINTING I—Fall quarter. Two or four hours.**

Courses 31 and 32 are consecutive courses and are planned to give the student the technical background upon which all type composition rests. This course covers the use of the various tools, equipment, materials, and the fundamentals of plain type composition. The student sets simple jobs and carries them through the different stages from composition to making ready and printing on the press. Methods of teaching these elements are also stressed.

**32. ELEMENTS OF PRINTING II—Winter quarter. Two or four hours.**

A continuation of Course 31. The student is given further work in the fundamental technic involved in producing printed matter. More complicated jobs involving the use of rule and tabular work, borders, and ornamental materials are set.

**33. PRINCIPLES OF PRINTING DESIGN—Spring quarter. Two or four hours.**

This course is a continuation of Course 32 in that it builds upon the student's knowledge of and ability in the use of type, tools, and materials, in teaching him the elements of good design in printing. Proportion, balance, simplicity, harmony of shape and tone, ornamentation, etc., are specifically dealt with as the student designs, sets, and prints complete pieces of work.

**34. INTERMEDIATE PRINTING I—Fall quarter. Two or four hours.**

Courses 34, 35, and 36 aim to give intensive work in job composition. This course offers advanced technical work in the fundamental mechanical processes in printing. It stresses the principles of good design and workmanship. Practical work with tickets, cards, letterheads, labels, etc., form the basis for the student's work.

**35. INTERMEDIATE PRINTING II—Winter quarter. Two or four hours.**

A continuation of Course 34, to cover the design and printing of title pages, cover pages, posters, menus, programs, etc. The student is introduced to the use of color and the make-up of color forms more fully than in any of the preceding courses.

**36. INTERMEDIATE PRINTING III—Spring quarter. Two or four hours.**

While this course gives further training in the designing and producing of the various types of work dealt with in courses 34 and 35, it lays particular stress upon the composition of difficult and extensive pieces of job composition and the efficient laying out and planning of such work. More press work is done than in previous courses.

**41a. ELEMENTARY BOOKBINDING AND LEATHER CRAFT—Fall, winter, and spring quarters. Four hours.**

Fee, \$1.00.

This course aims to introduce all the tools and equipment necessary in elementary bookbinding and leather craft, also the terminology of materials used, the making of some articles in leather craft and binding of small volumes.

**41b. ELEMENTARY BOOKBINDING AND LEATHER CRAFT—Fall, winter, and spring quarters. Four hours.**

Fee, \$1.00.

Full buckram magazine bindings and care and repair of books. Beginning hot and cold tooling—a continuation of leather craft. Pattern making for leather craft.

**41c. ELEMENTARY BOOKBINDING AND LEATHERCRAFT—Fall and spring quarters. Four hours.**

Fee, \$1.00.

Half and full leather bindings in morocco, calf, and cow hides. Leather tooling and design. Elementary gold stamping on lettering machine.

42a. INTERMEDIATE BOOKBINDING AND LEATHER CRAFT—Spring quarter. Four hours.

Fee, \$1.00.

This course deals with advanced steps in half and full leather bindings, also takes up antique tooling, stamping, and titling.

42b. INTERMEDIATE BOOKBINDING AND LEATHER CRAFT—Fall, winter, and spring quarters. Four hours.

Fee, \$1.00.

A continuation of 42a and taking up padded bindings with and without deckled edge effect.

42c. HISTORY OF BOOKBINDING—Fall and winter quarter. Four hours.

This course deals with the methods applied and materials used in ancient, medieval, and modern bindings.

100. WOOD SHOP PROBLEMS—Fall and spring quarters. Four hours.

Fee, \$2.00.

This course is designed to furnish an opportunity for students to become acquainted with the more advanced phases of technical shop practice as they are worked out in the school or factory.

103. METHODS IN WOODWORKING—Spring quarter. Four hours.

This course deals with methods in the handling of school woodworking from the construction and equipping of the shop to the actual work done through the grades, junior high, and high school classes.

104. VOCATIONAL EDUCATION—Winter quarter. Four hours.

The aim is to give a better understanding of the underlying principles essential in teaching, and involves a study of the classroom laboratory, shop and studio methods and practices. In general, the topics discussed will be what is to be taught in the practical arts field, the illustrative materials essential for good teaching, and the method of attack in the teaching of a single lesson or series of lessons, type and illustrative lessons, and the place of the arts in the curriculum of the public schools.

105. PRINCIPLES OF ARCHITECTURAL DRAWING III—Fall quarter. Four hours.

Fee, \$1.00.

This course is designed to give some understanding of outstanding historic building units handed down through the ages and applications in modern building. The technical work in sketches and measured drawings of columns, capitals, arches, vaults, buttresses, windows, etc. and their application in modern building. The work is extensive rather than intensive in its fundamental aspects.

106. SCHOOL AND SHOP EQUIPMENT CONSTRUCTION—Fall quarter. Four hours.

This course has for its base the construction of various types of equipment both for the woodworking laboratory and other departments of the school. In this course, machine work prevails wherever possible.

107. WOODWORKING CLASS PROJECTS—On request. Two or four hours.

Fee, \$2.00.

The purpose of this course is to train the student in planning, designing, and carefully working out suitable projects to construct in elementary, junior high, and high school classes.

109a. ART METAL AND JEWELRY I—Fall quarter. Four hours.

Fee, \$2.00.

Planned for the further study of problems of the type developed in Art Metal II, and the making of jewelry in more precious materials. Many attractive designs of the old crafts may be adapted or applied in the making of products in the schools. No other craft calls for such fine practice in design and handling of materials used. Some of the topics presented in the course are precious metals, semi-precious stones, stone setting, and the processes of designing, sawing, filing, embossing, and soldering.

109b. ART METAL AND JEWELRY II—Winter and spring quarters. Four hours.

Fee, \$2.00.

A continuation of 109a, Art Metal and Jewelry I, and involves advanced processes in stone setting, including shaping, doming, measuring for a

bezel, soldering of bezel and assembly soldering. Further problems in wire work, settings, enameling, and casting with sand and other materials.

117. MACHINE DRAWING I—Winter quarter. Four hours.

Fee, \$1.00.

Involves, in the practical application of the language of drawing, the need for the representation of fastenings and the methods of fastening parts together with permanent and removable fastening and a knowledge of the fundamental forms of these fastening parts and familiarity with the conventional methods of their representation in drawings. Technical exercises include sketches, tracings, and drawings of parts and assembled drawings.

118. MACHINE DESIGN II—Spring quarter. Four hours.

Fee, \$1.00.

A study of the transmission of motion by belts, pulleys, gears, and cams. The technical work involves the solution of problems in the fields enumerated above.

119. APPLIED ORNAMENT—Spring quarter. Two hours.

Attempts to bring before the students a few of the most prominent styles of ornament which are closely related to each other in which certain general laws seem to reign independent of the individual characteristics of each. We hope that such a course may aid in arresting the unfortunate tendency in some industrial courses to be content with copying poor or even good design. Examples are to be taken from materials found in the great arts that have contributed to the comfort and wellbeing of peoples. Such illustrative materials will be taken from furniture, rugs, china, metal work, and jewelry. Lecture recitation, projectoscope, and slides. Open to all students of the College.

120. ADVANCED WOODTURNING—Winter quarter. On request. Four hours.

Fee, \$2.00.

The topics emphasized in this course will include woods best suited for various work; glue, varnish, shellac, dowels, draft, shrinkage, and finish. The practical work will consist of patterns for hollow castings, building up and segment work.

121. ADVANCED CABINET MAKING—Spring quarter. Four hours.

Fee, \$2.00.

The course is planned to cover advanced phases of cabinet work, including paneling, dovetailing, secret nailing, and key joining. These technical processes will be worked out on individual projects.

124. MACHINE WORK—Winter quarter. On request. Four hours.

Fee, \$1.00.

This course is designed to give the student a general knowledge of the care and operation of woodworking machinery. The setting of cutters and their manipulation embraces the general basis of this course.

125. CLASS MANAGEMENT IN WOODWORKING—On request. Fall, winter and spring quarters. Four hours.

The purpose of this course is to give the student a thorough knowledge of the handling of an advanced class in woodworking and also give him an opportunity to gain a better understanding of the handling of high grade material than could be gained by working in elementary or secondary classes. Hours to be arranged with individual students.

126. HISTORY OF ARCHITECTURE—Spring quarter. Two hours.

A nontechnical course preparatory to further technical study for those so desiring.

Civilization and human progress have, in the main, followed the course of the sun. In the East arose those nations and cities from which other nations have derived a part of their civil institutions, their religion, and culture. This course is planned to study architecture largely from the standpoint of world history, reading into their great monuments the feelings and aspirations of the people who erected them.

Technically, we will trace various forms and structural phases of architecture as they have appeared from the early past down to the present, noting the fundamental considerations that have played a superior part in the building of great monuments. Illustrated with lantern slides. Open to all students of the College.

132. **ADVANCED PRINTING I**—Fall and spring quarters. Four hours.

This course assumes that the student through previous courses has acquired technical skill with type and a thorough understanding of the principles of good design in printing. He now proceeds to put these into practice in large printing projects. The aim is to produce work of considerable artistic merit. Discussion and criticism of jobs are features of the course. An intensive study of papers and inks is made.

133. **ADVANCED PRINTING II**—Winter quarter. Four hours.

An intensive study of cuts and the cutting and printing of linoleum blocks are stressed in this course. Advanced press work in the printing of blocks and cuts has a prominent place. Hand lettering and its application to the printed page are also dealt with.

134. **PRACTICAL NEWSPAPER WORK IN PRINTING**—On request. Four hours.

The various technical processes incident to the printing of a school newspaper are performed by the student. The business and cost side of the school newspaper is dealt with in this connection. Good design in typographical makeup is emphasized in the course.

135. **COST ACCOUNTING IN PRINTING**—On request. Two hours.

This course is intended to familiarize the student with the costs involved in printing. Practical work in estimating and figuring jobs is featured.

136. **SHOP MANAGEMENT IN PRINTING**—On request. Two hours.

This course stresses the business side of equipping and managing the school shop. Practical experience is given in the keeping of records and accounts, the purchase of materials, and the planning and laying out of equipment. Students are encouraged to work out original ideas, intended to increase the shop's efficiency from both a commercial and teaching viewpoint.

137. **PRINT SHOP PROBLEMS**—On request. Four hours.

A course designed for the student who wants to get a deeper practical insight into actual problems of care, management, and instruction confronted by the teacher of printing. Practical experience in assisting the instructor in dealing with such problems is given the student.

138. **SUPERVISORY PRINTING**—On request. Four hours.

An over-view course designed for those who desire to get not only a speaking acquaintance with type, tools, processes, equipment, and materials of a print shop, but who want to know something of the function, place, and proper conduct of the school shop in a school system. A general, rather than a detailed technical, knowledge of the shop is stressed.

143a. **ADVANCED BOOKBINDING**—Fall and spring quarters. Four hours.

A practical course in classroom management and fundamentals of teaching binding and leather craft, care of equipment, and materials.

143b. **ADVANCED BOOKBINDING**—Winter quarter. Four hours.

This course takes up hand lettering, tooling, and designs in gold, the making of gold edges, and also the art of marble and wax edge making.

143c. **ADVANCED BOOKBINDING**—On request. Fall quarter. Four hours.  
Fee, \$1.00.

This course takes up the binding of extra large volumes requiring special sewing and make-ready necessary in the building of large volumes. Advanced work in book titling in gold and foils on lettering machine.

144a. **ADVANCED BOOKBINDING AND LEATHERCRAFT**—Fall quarter. Two or four hours.

Fee, \$1.00.

This course deals with the preparation and organization of problems, planning of technical work, carrying out designs, and selection of all types of materials and methods of construction.

144b. **ADVANCED BOOKBINDING**—Winter quarter. Two or four hours.  
Fee, \$1.00.

Science of shop accounting, purchasing of materials and equipment for the classroom. Production estimating, cost and upkeep expense. Department floor plans.



144c. **ADVANCED BOOKBINDING**—Winter and spring quarters. Two or four hours.

Fee, \$1.00.

Takes up all types of folder, novelty, and specialty problems in leather, fabricoid, or buckram. An over-view of all work showing the possibilities of the equipment from numerous angles, fitting the student for both high school and college teaching.

201. **SEMINAR IN INDUSTRIAL EDUCATION**—On request. Four hours.

This course has for its purpose individual research in the field of industrial education. Problems to be selected upon consultation with instructor in charge. Conference hours to be arranged.

202. **SUPERVISORY WOODWORKING**—On request. Two or four hours.

The aim of this course is primarily to give an opportunity to study the subject of woodworking from the standpoint of an administrator. Such phases of the subject as teaching, management, economy in buying, suitable equipment, and general upkeep will be made the basis of this course. In connection with it, it is planned to furnish to students, who may care to pursue a somewhat different type of shop work, an opportunity to conduct a line of investigations in various fields which are exceedingly rich in educational values to those interested in the subject of industrial education.

223. **RESEARCH IN INDUSTRIAL EDUCATION**—Four hours.

Taken in the first quarter of graduate work.

This is a required seminar and conference course for graduate students who are working on their masters' investigations. The director of educational research meets the group three times each week and confers with individual students in the research office. Small group conferences are held when needed. Each student meets his thesis adviser regularly.

224. **RESEARCH IN INDUSTRIAL EDUCATION**—Four hours.

This course is intended primarily for graduate students working on their masters' theses.

225. **RESEARCH IN INDUSTRIAL EDUCATION**. Two hours.

A continuation of Industrial Education 224.

## LIBRARY SCIENCE

The main Library of the College contains about 67,000 volumes with a large picture collection and all equipment for a very complete library. There is also a children's branch containing about 5,000 volumes for the use of the Training Schools. Good facilities are offered for a class in library training.

Library Science is not offered as a major course, but as a minor for students working for the Bachelor of Arts degree. The work is given in the junior and senior years. It is suggested that it be taken with literature, foreign languages, or history as the major, although it is not limited to any one major. Any course in library science may also be chosen as an elective by a student not taking it as a minor. It is required of all taking library science as a minor that they shall take at least four hours in library bookbinding. The following courses in library science are offered:

101. **BOOKMAKING AND BOOK SELECTION**—Fall quarter. Four hours.

Paleography. Manuscripts. History of printing. Paper and paper-making. The physical make-up of the book. Study of modern processes of printing and illustrating. Reviews and aids in book selection. Trade bibliography. Checking in and preparing for shelves.

103. **CLASSIFICATION AND CATALOGING**—Winter quarter. Four hours.

A study of the principles of classification, the decimal system particularly. Classification of books, pamphlets, pictures, and the varied items that may be obtained for the school library. The dictionary catalog, alphabetizing, adaptation, and use of Library of Congress cards, use of subject headings and shelf lists.

104. REFERENCE WORK—Spring quarter. Four hours.

The subject covers a study of the standard works of reference, such as the principal encyclopedias, dictionaries, atlases, and reference manuals of various kinds. Selection and purchase of periodicals, checking in and accounting; and concerning their use as reference material. Periodical indexes and aids. Bibliographies and reading lists. Selection of public documents and their use for reference.

106. CHILDREN'S LITERATURE AND JUVENILE LIBRARY SERVICE—Spring and summer quarters. Four hours.

A survey of the field of literature for children, and its selection for juvenile libraries. History of children's literature. Modern illustrators. School libraries and equipment.

107. ADMINISTRATION AND HISTORY OF LIBRARIES—Winter quarter. Four hours.

Historical libraries, American Library Association, Library extension, finances and budget libraries, Library commissions, library legislation, finances and budget allotments. Book circulation and charging systems.

108. PRACTICAL WORK IN LIBRARY—By arrangement. Four hours.

Time required, two hours per day, plus optional work by student. This is allowed only to those who have taken 102, 103, 104, and calls for a certain responsibility on the part of the student.

MATHEMATICS

FIRST YEAR

Sec. A

Sec. B

Sec. C

Fall	Civ'l. 1 Ed. 1 Math. 5 or 1 Phys. Ed. Sci. 1	Art 1 Eng. 4 Hvg. 1 Math. 5 or 1 Mus. 25 Phys. Ed.	Civ'l. 1 Eng. 0 Math. 1 or 5 Phys. Ed.
	Art 1 Minor Math. 6 or 2 Mus. 25 Phys. Ed. Sci. 2	Civ'l. 1 Math. 6 or 2 Minor Phys. Ed. Sci. 1	Eng. 4 Hvg. 1 Math. 2 or 6 Minor Phys. Ed.
	Hvg. 1 Math. 7, or 3 or 4 Obser. 1 Phys. Ed. Psych. 2a	Ed. 1 Elective Math. 7, or 3 and 4 Phys. Ed. Sci. 2	Art 1 Elective Math. 3, 4, or 7 Mus. 25 Phys. Ed. Sci. 1
Winter			
Spring			

SECOND YEAR

Sec. A

Sec. B

Sec. C

Fall	Math. 9 or 5 Methods Course Phys. Ed. Psych. 2b Teaching 1	Elective (2 hours) Math. 9 or 5 Observ. 1 Phys. Ed. Physics 1 Psych. 2a	Ed. 10 Eng. 21 Math. 5 or 9 Phys. Ed. Sci. 2
	Ed. 10 Eng. 21 Math. 101 or 6 Minor Phys. Ed.	Math. 101 or 6 Methods Course Phys. Ed. Psych. 2b Teaching 1	Elective (2 hours) Eng. 22 Math. 5 or 101 Observ. 1 Phys. Ed. Fpsych. 2b
	Eng. 22 Hist. 125 Math. 102 or 7 Minor Phys. Ed.	Ed. 10 Eng. 21 Math. 102 or 7 Minor Phys. Ed.	Math. 7 or 102 Methods Course Phys. Ed. Psych. 2b Teaching 1
Winter			
Spring			

THIRD YEAR

Sec. A

Sec. B

Sec. C

Fall	Elective Hist. 126 Math. 9 or Elective Physics 1	Eng. 22 Hist. 125 Math. 9 or Elective Minor	Ed. 10 Math. 9 or Elective Minor Physics 1
	Ed. 116 Elective Math. 101 or Elect. Minor	Ed. 116 Hist. 126 Math. 101 or Elec. Minor	Elective Hist. 125 Math. 101 or Elect. Minor
	Elective Math. 102 or Elect. Observ. 1 Psych. 117 or 108b	Elective Math. 102 or Elect.	Elective Hist. 126 Math. 102 or Elect. Minor
Winter			
Spring			

FOURTH YEAR

Sec. A

Sec. B

Sec. C

Fall	Elective Elective Math. Minor Teaching 2	Elective Minor Observ. 1 Fsvch. 117 or 108b	Ed. 116 Minor Soc. 105
	Elective Soc. 105	Elective Elective Math. Teaching 2	Elective Observ. 1 Psych. 117 or 108b
	Ed. 111 Elective	Ed. 111 Elective Soc. 105	Ed. 111 Elective Teaching 2
Winter			
Spring			

## MATHEMATICS

All courses are given strictly from the professional point of view. In those which emphasize subject matter the material is presented in such a way as both to illustrate the best methods of teaching and to give a real mastery of the most important parts of the subject under consideration. In the courses that emphasize methods subject matter still plays a part, for no instruction in method can be effective unless it is based upon a genuine knowledge of the subject matter to be taught.

It has been found that freshmen desiring to major in mathematics fall into two groups: those who have had two and a half, or more, years of high school mathematics, and those who have had a less amount. These two groups are divided during their first year. Those who have a good knowledge of elementary algebra are encouraged to take General Mathematics, while those who have had only about one year of elementary algebra are encouraged to take a year in algebra and trigonometry before taking up General Mathematics.

### A FOUR-YEAR COURSE OF STUDY IN MATHEMATICS

Majors in Mathematics are required to distribute their core subjects according to the diagram on page 159. Their departmental subjects should be distributed according to the diagram in the first two years, but in the junior and senior years more liberty is allowed in making the distribution.

In addition to the core subjects listed on page 58, the following courses are required of majors in the department: Math. 1, 2, 3, 4 (unless excused), 5, 6, 7, 9, 101, 102, and Physics 1.

Each student must select a department in which to minor and take at least twelve hours in that department.

**\*1. COLLEGE ALGEBRA—Fall and summer quarters. Four hours.**

This course is designed to give a real understanding of the most useful parts of algebra. It emphasizes the fact that algebra is an understandable and sensible subject. The student is led to think his way through each topic. At the same time the professional viewpoint is constantly kept in mind. The subject matter covered includes the fundamental operations, formulas, the equation, the graph, exponents and the solution of problems, all treated on a higher level than that of the high school course.

**\*2. TRIGONOMETRY—Winter and summer quarters. Four hours.**

This course deals with the definition of the trigonometric functions, their use in the solution of right triangles, the use of the natural values of the functions, and the use of logarithms, general formulas, and the solution of oblique triangles.

**\*3. COLLEGE ALGEBRA—Spring quarter. First half. Two hours.**

This course is a continuation of Mathematics 1 and is conducted on the same plan. It treats of quadratics, logarithms, higher equations, the progressions, combinations and permutations.

**\*4. TRIGONOMETRY—Spring quarter. Two hours.**

A continuation of Mathematics 2. It deals with applications of the solution of the right and oblique triangle to problems obtained from field measurements. The surveyor's transit and steel tape are used to secure real problems, thus giving a vitality to the course that is lacking when it is made purely a textbook study. Students are encouraged to use the slide rule throughout the course.

**\*5. GENERAL MATHEMATICS—Fall quarter. Four hours.**

Courses 5, 6, and 7 are designed to give the student a comprehensive view of the field of elementary mathematics and its application to the problems of real life. They treat mathematics as a unit rather than as a series of separate and distinct subjects. Freshmen who have had a year and a half or two years of high school algebra are advised to take general mathematics instead of Mathematics 1, 2, and 3.

Mathematics 5 deals with functions and graphs and gives an introduction to the use of the derivative and the integral in the solution of real problems.

\*Given also by extension.

**\*6. GENERAL MATHEMATICS—Winter quarter. Four hours.**

A continuation of Mathematics 5. It treats of the trigonometric functions and their applications, logarithms, exponential functions, and an analytical study of the straight line and the circle, with a brief treatment of the other conic sections.

**\*7. GENERAL MATHEMATICS—Spring quarter. Four hours.**

A continuation of Mathematics 6. It deals with the solution of equations, polar coordinates, trigonometric analysis, the progressions, probability with the probability curve, and an introduction to complex number.

**8. SURVEYING—Spring and summer quarters. Four hours.**

This course gives a real knowledge of the applications of trigonometry to the problems of indirect measurement and a clear understanding of computation from measurements actually made in the field. It deals with the use of surveyor's instruments, running grades, land surveying, city surveying and related problems.

**\*9. ANALYTIC GEOMETRY—Fall and summer quarters. Four hours.**

This course is designed to give the student a broader and more thorough knowledge of the analytical method as applied to geometrical problems than he has been able to get from his course in general mathematics or elsewhere. It deals with equations and their graphs, the straight line, the circle, the other conic sections, transformation of coordinates, polar coordinates, and tangents and normals.

**10. MATERIALS AND METHODS OF ARITHMETIC IN THE GRADES—Fall and spring quarters. Four hours.**

This course is designed for those who expect to teach arithmetic in the first six grades. It treats the subject matter of arithmetic from the professional point of view. The student becomes familiar with the actual subject matter she will have to teach, best methods of presenting it and the psychological and educational problems that bear upon the teaching problem.

**\*11. SOLID GEOMETRY—Summer quarter. Four hours.**

This course is designed for those who expect to teach solid geometry in high school. It treats of the ordinary propositions and exercises of the subject but places emphasis upon the way to make the material vital and interesting.

**\*101. DIFFERENTIAL CALCULUS—Winter and summer quarters. Four hours.**

A knowledge of the calculus is necessary to anything like a real appreciation of the power of mathematics. This course gives the student an introduction to this powerful branch of the subject he plans to teach. It takes up the meaning of the derivative, the value and development of the formulas, the application to problems involving slopes, maxima and minima, and mechanics.

**\*102. INTEGRAL CALCULUS—Spring and summer quarters. Four hours.**

A continuation of Mathematics 101. It introduces the problem of integration and applies it to areas, volumes and other practical matters. Both 101 and 102 help the prospective teacher to see what parts of elementary mathematics play a really important part in higher mathematics and its applications.

**\*103. THEORY OF EQUATIONS—Fall quarter. (Not given 1929-30.) Four hours.**

This course deals with the function and its graph, complex number and its graphic representation, cubic and quartic equations, symmetric functions, and determinants.

**\*104. THE TEACHING OF ARITHMETIC—Winter, spring and summer quarters. Four hours.**

This course is designed primarily for those who have a good knowledge of the subject matter of arithmetic and who wish to give their time largely to consideration of actual problems of how the subject may be most effectively taught. It treats of questions concerning the course of study, analysis of skills into their component parts, development of skill through drills, methods of teaching the various facts and skills, methods of securing interest, and diagnostic testing and remedial teaching.

\*Given also by extension.

106. DESCRIPTIVE ASTRONOMY—Winter and summer quarters. Four hours.

This course gives an introduction to the old but always interesting science of astronomy. It makes the student familiar with the principal astronomical facts about the earth and the other planets and their satellites, enables him to find the principal constellations and to point out their most interesting features, and gives him a new respect for the greatness of this universe of which our little globe is so insignificant a part.

\*107. TEACHING JUNIOR HIGH SCHOOL MATHEMATICS—Fall, winter and summer quarters. Four hours.

In this course the student is made familiar with the subject matter he will be expected to teach to children in the upper grades or the junior high school, especially the part involving arithmetic. He takes up such subjects as percentage and interest from an adult's point of view but considers at the same time how these subjects may best be taught to the child in the seventh or eighth grade. The aim of the course is to give him a better grasp on the subject matter than he ever had before and at the same time to show clearly how the material studied may be made most valuable to boys and girls not only in their present stage of development, but in their later lives as well.

\*109. THE TEACHING OF ALGEBRA—Fall and summer quarters. Four hours.

Algebra has probably suffered more from poor teaching than any other branch of mathematics. This course aims, first, to give the student a clear knowledge of what algebra is all about and, second, to help him to see how it can be made vital and interesting to the average boy or girl. It treats of the subject matter needed in an up-to-date algebra course and presents that subject matter in a way calculated to make it thought provoking and understandable.

\*110. GEOMETRY FOR TEACHERS—Winter and summer quarters. Four hours.

This is another professionalized subject matter course. It aims to deal with real geometry but to treat it from the standpoint of the prospective teacher. It tries to develop real power in handling geometric material, to exemplify best methods of conducting a class, and to show what geometry may be expected to do for the pupils.

111. ALGEBRA AND GEOMETRY FOR THE UPPER GRADES—Spring quarter. Four hours.

This course centers attention upon the problem of teaching that body of algebraic and geometric material which is now being taught to children in the seventh, eighth and ninth grades. The geometry is mostly intuitive in its nature while the algebra deals with formulas, equations, graphs and signed numbers.

\*200. ADVANCED CALCULUS—Fall quarter. Four hours.

This course gives opportunity for an extension of the knowledge of calculus gained in 101 and 102. It deals mostly with applications of differential and integral calculus to problems arising in geometry, mechanics and physics.

\*201. DIFFERENTIAL EQUATIONS—Winter quarter. (Not given 1929-30.) Four hours.

This course leads to an understanding of the differential equations, its solution and its simpler applications.

223. RESEARCH IN MATHEMATICS—Every quarter. Four hours.

Taken in the first quarter of graduate work.

This is a required seminar and conference course for graduate students who are working on their masters' investigations. The director of educational research meets the group three times each week and confers with individual students in the research office. Small group conferences are held when needed. Each student meets his thesis adviser regularly.

224. RESEARCH IN MATHEMATICS—Four hours.

This course is intended primarily for graduate students working on their masters' thesis.

225. RESEARCH IN MATHEMATICS—Two hours.

A continuation of Mathematics 224.

\*Given also by extension.

MUSIC

FIRST YEAR

Sec. A

Sec. B

Sec. C

Fall	Civ'l. 1 Ed. 1 Mus. 1b Mus. 45 Phys. Ed. Sci. 1	Art 1 Eng. 4 Hyg. 1 Mus. 1b Mus. 45 Phys. Ed.	Civ'l. 1 Ed. 1 Eng. 0 Mus. 1b Mus. 45 Phys. Ed.	Fall	
	Art 1 Mus. 1c Mus. 45 Phys. Ed. Sci. 1-2	Civ. 1 Mus. 1c Mus. 45 Phys. Ed. Sci. 1	Eng. 4 Hyg. 1 Mus. 1c Mus. 45 Phys. Ed.		Winter
	Hyg. 1 Mus. 1d Mus. 2 Mus. 45 Observ. 1 Phys. Ed. Psych. 2a	Ed. 1 Mus. 1d Mus. 2 Mus. 45 Phys. Ed. Sci. 2	Art 1 Mus. 1d Mus. 2 Mus. 45 Phys. Ed. Sci. 1		

SECOND YEAR

Sec. A

Sec. B

Sec. C

Fall	Mus. 3 Mus. 10 Mus. 45 Phys. Ed. Psych. 2b Teaching 1	Mus. 3 Mus. 10 Mus. 45 Observ. 1 Phys. Ed. Psych. 2a	Ed. 10 Eng. 21 Mus. 3 Mus. 10 Mus. 45 Phys. Ed. Sci. 2	Fall	
	Ed. 10 Eng. 21 Mus. 4 Mus. 11 Mus. 45 Phys. Ed.	Mus. 4 Mus. 11 Mus. 45 Phys. Ed. Psych. 2b Teaching 1	Eng. 22 Mus. 4 Mus. 11 Mus. 45 Observ. 1 Phys. Ed. Psych. 2a		Winter
	Eng. 22 Hist. 125 Mus. 5 Mus. 45 Phys. Ed.	Ed. 10 Eng. 21 Mus. 5 Mus. 45 Phys. Ed.	Mus. 5 Mus. 45 Phys. Ed. Psych. 2b Teaching 1		

THIRD YEAR

Sec. A

Sec. B

Sec. C

Fall	Hist. 126 Mus. 20 Mus. 45	Eng. 22 Hist. 125 Mus. 20 Mus. 45	Ed. 10 Mus. 20 Mus. 45	Fall	
	Minor Mus. 21 Mus. 22 Mus. 45	Hist. 126 Mus. 21 Mus. 22 Mus. 45 Mus. 112	Hist. 125 Mus. 21 Mus. 22 Mus. 45 Mus. 112		Winter
	Mus. 23 Mus. 45 Observ. Phys. 114	Minor Mus. 23 Mus. 45 Phys. 114	Hist. 126 Mus. 23 Mus. 45 Mus. 114		

FOURTH YEAR

Sec. A

Sec. B

Sec. C

Fall	Mus. 103 Teaching 2 Minor (3 hours)	Ed. 111 Mus. 103 Minor (6 hours)	Mus. 103 Minor (3 hours) Soc. 105	Fall	
	Mus. 104 Mus. 105 Mus. 107 Psych. 112 Soc. 105	Mus. 104 Mus. 105 Mus. 107 Psych. 112 Teaching 2	Mus. 104 Mus. 105 Mus. 107 Observ. 1 Psych. 112		Winter
	Ed. 111 Mus. 106 Mus. 107 Mus. 110	Ed. 111 Mus. 106 Mus. 110 Soc. 105	Ed. 111 Mus. 106 Mus. 110 Teaching 2		

## MUSIC

The Department of Music is maintained primarily in order that teachers may be thoroughly trained to teach music in the public schools. The student life of the College is influenced directly by the large part music plays in all the student activities. It is necessary to maintain a large and highly trained music faculty in order properly to educate the public school music supervisor. Thus, it becomes possible to offer high-class instruction to those who are interested in the study of vocal and instrumental music. Send for special music bulletin.

Student recitals are given which provide the students an opportunity to appear in public. During the school year an oratorio is given by the College chorus, and the glee clubs of the institution give an opera each spring.

The Greeley Philharmonic Orchestra is a symphony orchestra of fifty members, comprised of talent of the school and city, which gives monthly concerts. The standard symphonies are studied and played. Advanced students capable of playing music used by the organization are eligible to join upon invitation of the director.

The College orchestra and band offer excellent training for those interested.

Music club meeting is held weekly. All music majors are required to attend.

The course of study is planned on a four-year basis. College credit is given for applied music under the following conditions:

1. An examination must be passed by all students who desire credit for applied music to show that they have completed the work of the second grade of the instrument in which they apply for further work. Second grade work must be equal to the following standard: sonatinas and pieces from Kuhlau, Kullak, Clementi, and Bach; twelve little preludes and pieces suited to the individual student. All forms of technical exercises, scales, drills, trills, chords, arpeggios, double thirds, and octaves; knowledge of tone production, phrasing, rudiments of harmony, use of pedal, and sight playing; compositions by Mozart, Haydn, Bach, Beethoven.

2. A full year's work (three quarters) must be taken before credit shall be allowed.

3. College credit will be given for proper work in all instruments except the following: ukelele, banjo, guitar, mandolin, fife, and single percussion instruments.

4. Beginning work in any instrument, except those mentioned in 3, will receive college credit when the examination in piano is passed to show the completion of two grades of work.

5. One hour of credit is given for not less than one lesson a week with practice under the instruction of a member of the music department of the College faculty. Two lessons a week in the same instrument shall not receive additional credit.

Examination must be taken in piano work before graduation. The maximum credit in applied music will be twenty-four hours.

### A FOUR-YEAR COURSE OF STUDY IN MUSIC

Majors in Music are required to distribute their core subjects according to the diagram on page 163. Their departmental subjects should be distributed according to the diagram in the first two years, but in the junior and senior years more liberty is allowed in making the distribution.



In addition to the core subjects listed on page 58, the following courses are required of majors in the department: Music 1b, 1c, 2, 3, 4, 5, 10, 11, 20, 21, 22, 23, 45, 103, 104, 105, 106, 107, 110, 112.

#### FOR MAJORS IN MUSIC

Examination must be taken in piano work before graduation.

The maximum credit in applied music will be twenty-four hours.

Attendance at Music Club is required.

Three quarters of Music 45 (Orchestral Instruments) are required.

Seventy-four hours of credit in music are required for a degree in music. In addition to this the student is required to take the core subjects listed on page 58 and select a minor of twelve to twenty-four hours outside the department.

#### FOR NON-MAJORS IN MUSIC

The maximum credit in applied music is three hours a year.

The five requirements applied to all students who wish to take lessons in applied music do not preclude beginning work in voice or piano or any other instruments, but in general they remove college credit from elementary work.

Band and orchestral instruments are rented at \$5.00 per quarter.

Music majors are required to do four quarters of student teaching.

All public school music majors are required to become members of the College chorus and orchestra each quarter. All majors in the public school music course must pass a third grade test on the piano and must be able to sing with an agreeable quality by time of graduation. Consult the head of the department.

#### 1a. RUDIMENTS AND METHOD:—Every quarter. Four hours.

Required of kindergarten, primary and intermediate majors. This course is designed for the purpose of equipping the grade teacher with the necessary musical skills, and methods for teaching the daily music lesson in the classroom. The materials and methods covered are those for: sight-singing, notation, musical terms, appreciation, rote-singing, games, etc. This course is sectioned according to majors.

#### 1b. SIGHT-SINGING—Fall and summer quarters. Four hours.

This course is required of music majors. Rudiments of music and beginning sight-singing.

#### 1c. SIGHT-SINGING—Winter and summer quarters. Four hours.

Required of music majors. Prerequisite Music 1b. Continuation of Music 1b. The student will acquire speed and accuracy in hearing and sounding difficult intervals.

#### 1d. SIGHT-SINGING—Spring quarter. Four hours.

A continuation of Music 1c.

#### 2. TONE THINKING AND MELODY WRITING—Spring and summer quarters. Four hours.

It is expected that students will become proficient in writing melodies in all kinds of rhythms. A great deal of dictation is done. Required of music majors. Prerequisite, Music 1c.

#### 3. HARMONY—Fall and summer quarters. Four hours.

This is a course consisting of the construction, classification and the progression of chords, and is put into practical use in the harmonization of melodies. Required of music majors.

#### 4. HARMONY—Winter and summer quarters. Four hours.

Continuation of Music 3. Required of music majors.

**5. HARMONY—Spring quarter. Four hours.**

A continuation of Music 4, taking up discords and modulations. Required of music majors.

**10. METHODS FOR TEACHING MUSIC READING—Fall and summer quarters. Four hours.**

Fundamental principles and devices for training in such musical skills as pitch, rhythm, reading, writing and theory. Music majors only. Required. Prerequisites, Music 1b, 1c, 1d.

**11. METHODS FOR TEACHING MUSIC APPRECIATION AND CREATIVE MUSIC—Winter and summer quarters. Four hours.**

Fundamental principles and devices for teaching music appreciation through listening. Devices and specific procedures are suggested for all grades. Creative Music. Making of instruments such as drums, marimbas, pan-pipes, etc. Playing. Ocarinas and psalteries. Composing. Music Majors only. Required. Prerequisite, Music 10.

**\*20. HISTORY OF ANCIENT AND MEDIEVAL MUSIC—Fall and summer quarters. Four hours.**

A cultural course which deals with the development of ancient and medieval music and musicians up to and including Beethoven, through the presentation of music by these composers. Required of music majors.

**\*21. MODERN HISTORY—Winter and summer quarters. Four hours.**

A continuation of Music 20. The lives and music of the great masters since Beethoven will be studied. Through the aid of the phonograph the student will become acquainted with the different styles of these composers' compositions. Required of all music majors. Prerequisite, Music 20.

**22. MUSIC APPRECIATION—Winter and summer quarters. Four hours.**

A course open to all who wish to acquire a greater love for good music. The lives of many of the great artists and composers are taken up in this course. Records of bands, orchestras, choruses, soloists, etc., are taken up with the purpose in view of acquainting the student with the best music and teaching him how to appreciate it.

**23. MUSICAL LITERATURE—Spring and summer quarters. Two hours.**

A listening course in which the student is taught to distinguish between the various forms of composition. A thorough knowledge of dance forms, song forms, etc. will be obtained.

**25. AN OUTLINE OF MUSIC—Every quarter. (Four hours a week.) Two hours.**

The story of the development of music amply illustrated through the use of, and by the rendition of music through the use of orchestral instruments, the piano, the organ and phonograph records of music recorded by the world-famous musical artists; talks about the characteristics of the great musical compositions and hearing the pieces played and sung; the form used in constructing a piece of music, such as the minuet, gavotte, fugue, waltz, polonaise, symphony, etc.

The chief aim of the course is to present a common stock of knowledge to the student who does not expect to become a music major, and who aspires to be classed with those teachers who want to be regarded as cultured persons. There are already in print books suitable as guides for such a course. The students' outside preparation would be the reading of some six hundred pages of such a textbook.

**30. INDIVIDUAL VOCAL LESSONS—Every quarter. One hour.**

Fee, \$24.00. Student teacher, \$12.00.

Correct tone production, refined diction and intelligent interpretation of songs from classical and modern composers.

**31. INDIVIDUAL PIANO LESSONS—Every quarter. One hour.**

Fee, \$24.00 and \$18.00. Student teacher, \$12.00.

High class instruction is offered to both beginners and advanced students using the standard technical works of Czerny, Clementi and others as well as the compositions of Beethoven, Bach, Schumann, Chopin and other classical and modern composers.

**32. INDIVIDUAL VIOLIN LESSONS—Every quarter. One hour.**

Fee, \$24.00. Student teacher, \$12.00.

The work will be outlined according to the ability of the student. Only the best of teaching material is used and the bowing and finger technic are carefully advised.

\*Given also by extension.

33. INDIVIDUAL PIPE ORGAN LESSONS—Every quarter. One hour.

Fee, \$24.00. Work is given in pipe organ to those students who have had enough piano instruction to be able to play Bach Two Part Inventions. The instruction starts with a thorough foundation in organ technic followed by study of Bach organ works. Mendelssohn Sonatas, Guilimant, Rheinberger, Widor and other organ composers of like standing in the musical world.

34. CLASS PIANO METHODS—Every quarter. One hour.

Fee, \$6.00.

A course designed for the prospective teacher in piano classes.

35. INDIVIDUAL LESSONS FOR BRASS AND REED INSTRUMENTS—Every quarter. One hour.

Fee, \$15.00.

Each instrument is carefully taught by a competent instructor. Special attention is given to beginners.

36. INDIVIDUAL 'CELLO LESSONS—Every quarter. One hour.

Fee, \$24.00.

Modern methods are used and a thorough course is given presenting the best music literature for the 'cello.

38. COLLECTIVE VOICE TRAINING—Fall and summer quarters. (Four times a week. (Not given 1929-30.) Two hours.

Fundamental work in voice building.

41. MEN'S GLEE CLUB—Fall, winter, and spring quarters. (Two days a week.) One hour.

Entrance upon examination. This club prepares a program and makes an extended tour of Colorado and near-by states.

42. SCHUMANN'S GLEE CLUB—Fall, winter, and spring quarters. (Not given 1929-30.) One hour.

Entrance upon invitation after examination. This club is composed of forty female voices and takes a prominent part in the presentation of the annual oratorio and opera. A concert is given each spring quarter.

43. ADVANCED ORCHESTRA—Every quarter. One hour.

Only those are admitted to this orchestra who have experience. Entrance upon examination only. All members must be present when called upon to play at College activities.

44. ADVANCED BAND—Every quarter. One hour.

The College Band is maintained in order that experienced band men may have an opportunity to continue rehearsing under able direction. The College band plays for all College activities and all members are expected to be present when the band is called upon to perform.

45. ORCHESTRAL INSTRUMENTS—Every quarter. (Four times a week.) Two hours.

A course in instrument study for the supervisors. Three quarters required of every music major.

This course is taken for additional credit as Mus. 45a and 45b.

101. COLLEGE CHORUS—Every quarter. One hour.

Worth while music and standard choruses are studied. This chorus assists in giving the annual oratorio. Open to all students. Required of music majors.

103. BEGINNING COUNTERPOINT—Fall and summer quarters. Two hours.

The rules of harmony are here applied to polyphonic writing. Required of majors in music. Prerequisite, Music 4.

104. ADVANCED COUNTERPOINT—Winter and summer quarters. Two hours.

Continuation of Music 103. Required of music majors.

105. BEGINNING ORCHESTRATION—Winter quarter. (Not given 1929-30.) Two hours.

A study is made of the several instruments of a symphony orchestra. Their pitch and quality of tone are studied singly and in combination. Beginning arranging for orchestra is begun. Prerequisite, Music 104.

106. ADVANCED ORCHESTRATION—Spring quarter. (Not given 1929-30.) Two hours.

Continuation of Music 105. Required for a degree in music.

107. FORM ANALYSIS—Winter quarter. Two hours.

Analysis will be made of the smaller forms in music, also of symphonies from Haydn down to the present. Prerequisite, 104 and 106. Required of music majors.

108. ADVANCED FORM ANALYSIS—Spring quarter. Two hours.

Continuation of Music 107. Required of music majors.

110. PRINCIPLES OF MUSICAL EDUCATION—Spring and summer quarters. Four hours.

A brief study of the history of Music Education in the United States. Principles of Aesthetics that apply to music as an art. Principles that are fundamental to all the work done in the public school such as appreciation, skill development and song-singing. Required of Music Majors. Prerequisites, Music 10 and 11.

111. CONDUCTING BY ASSIGNMENT—All quarters. Two hours.

114. METHODS IN CONDUCTING—Spring and summer quarters. Four hours.

The technic of the baton is obtained through the actual use of the same. Music in all forms is studied with special reference to the directors' problems.

122. APPRECIATION (For the Concert Goer)—Fall and summer quarters. One hour.

123. APPRECIATION OF OPERA—Fall and summer quarters. One hour.

Monteverde to modern times. Classroom work will consist of lectures and the actual singing of the principal airs by the class. Librettos used as textbooks.

130. INDIVIDUAL VOCAL LESSONS AND METHODS—Every quarter. One hour.

Fee, \$24.00.

A method of approach in tone building will be discussed with special reference to the teachers' problems.

131. INDIVIDUAL PIANO LESSONS AND METHODS—Every quarter. One hour.

Fees, \$18.00 and \$24.00.

An advanced course in piano playing with suggestions and helps for teaching the instrument.

132. INDIVIDUAL VIOLIN LESSONS AND METHODS—Every quarter. One hour.

Fee, \$24.00.

Teaching problems will be discussed and classified teaching material will be suggested, making this a valuable course to the student preparing himself for teaching the violin.

133. INDIVIDUAL PIPE ORGAN LESSONS AND METHODS—Every quarter. One hour.

Fee, \$24.00.

An advanced course in organ playing combined with instruction in teaching the instrument.

134. INDIVIDUAL 'CELLO LESSONS AND METHODS—Every quarter. One hour.

Fee, \$24.00.

Discussions will be held with special regard to the methods pursued in teaching the 'cello.

PHYSICAL EDUCATION FOR WOMEN

FIRST YEAR

	Sec. A	Sec. B	Sec. C	
Fall	Chem. 1 Civ'l. 1 Ed. 1 Phys. Ed. Phys. Ed. 35 Sci. 1	Art 1, Chem. 1 Eng. 4 Hyg. 1 Mus. 25 Phys. Ed. Phys. Ed. 35	Chem. 1 Civ'l. 1, Ed. 1 Elective Eng. 0 Phys. Ed. Phys. Ed. 35	Fall
Winter	Art 1, Chem. 2 Elective Mus. 25, Sci. 2 Phys. Ed. 36	Chem. 2, Sci. 1 Civ'l. 1 Elective Phys. Ed. 36	Chem. 2 Elective Eng. 4, Hyg. 1 Phys. Ed. 36	Winter
Spring	Elective Hyg. 1, Observ. 1 Phys. Ed. Phys. Ed. 37 Psych. 2a	Ed. 1, Sci. 2 Elective Elective Phys. Ed. Phys. Ed. 37	Art 1, Mus. 25 Electives (2) Phys. Ed. Phys. Ed. 37 Sci. 1	Spring

SECOND YEAR

	Sec. A	Sec. B	Sec. C	
Fall	Elective Phys. Ed. Psych. 2b Teaching 1 Zool. 1	Electives (2) Observ. 1 Phys. Ed. Psych. 2a Zool. 1	Ed. 10 Eng. 21 Phys. Ed. Sci. 2 Zool. 1	Fall
Winter	Ath. 3 Ed. 10, Eng. 21 Phys. Ed. Phys. Ed. 39 Zool. 2	Ath. 3 Phys. Ed. Phys. Ed. 39 Psych. 2b Teaching 1, Zool. 2	Eng. 22, Zool. 2 Observ. 1 Phys. Ed. Phys. Ed. 39 Psych. 2a	Winter
Spring	Elective (2) Elective Eng. 22, Hist. 125 Phys. Ed. Phys. Ed. 40	Ed. 10, Eng. 21 Elective Elective Phys. Ed. Phys. Ed. 40	Electives (2) Phys. Ed. Phys. Ed. 40 Psych. 2b Teaching 1	Spring

THIRD YEAR

	Sec. A	Sec. B	Sec. C	
Fall	Hist. 126 Minor Phys. Ed. 100 Phys. Ed. 120 Phys. Ed. 137	Elective Eng. 22, Hist. 125 Phys. Ed. 100 Phys. Ed. 120 Phys. Ed. 137	Ed. 10 Elective Phys. Ed. 100 Phys. Ed. 120 Phys. Ed. 137	Fall
Winter	Elective Minor Phys. Ed. 101 Phys. Ed. 121 Psych. 1	Hist. 126 Minor Phys. Ed. 101 Phys. Ed. 121 Psych. 1	Ath. 3, Hist. 125 Minor Phys. Ed. 101 Phys. Ed. 121 Psych. 1	Winter
Spring	Electives (2) Minor Observ. 2 Phys. Ed. 102 Phys. Ed. 132	Elective Elective Minor Phys. Ed. 102 Phys. Ed. 132	Elective Hist. 126 Minor Phys. Ed. 102 Phys. Ed. 132	Spring

FOURTH YEAR

	Sec. A	Sec. B	Sec. C	
Fall	Phys. Ed. 103 Phys. Ed. 122 Phys. Ed. Phys. Ed. *136 Teaching 2	Elective Minor Observ. 2 Phys. Ed. 103, 122 Phys. Ed. *133, *136	Minor Phys. Ed. 103 Phys. Ed. 122 Phys. Ed. *133 Soc. 105	Fall
Winter	Biotics 101 Phys. Ed. 104 Phys. Ed. 133 Phys. Ed. 136 Soc. 105	Biotics 101 Phys. Ed. 104 Phys. Ed. *133 Phys. Ed. *136 Teaching 2	Biotics 101 Minor Observ. 2 Phys. Ed. 104	Winter
Spring	Ed. 111 Elective Phys. Ed. *133, 135, and *136	Ed. 111 Phys. Ed. *133, 135, and *136 Soc. 105	Ed. 111 Phys. Ed. *133, 135, and *136 Teaching 2	Spring

\*See footnote at bottom of next page.

## PHYSICAL EDUCATION FOR WOMEN

All first and second year students are required to take one active course in Physical Education each quarter in residence. Physical Education 30 will be substituted for an active course upon presentation of a request from the medical adviser of the school. Excuses from any other doctor must be referred to her.

No Physical Education course may be taken more than once for credit. This will enable the College to accommodate more students in any one sport and will prevent the monopoly of a popular sport by a few.

A physical examination by the College medical adviser is required of every woman in college once each year. Each woman is given an appointment for this at the time of registration. Anyone failing to keep such appointment without having first canceled same with the approval of the medical adviser will be charged the sum of \$1.00 to pay for the examination when given. If taken at the scheduled time no fee will be charged.

Regulation costumes are required for the physical education work and should be purchased in Greeley in order to conform to the requirements.

A deposit of \$1.00 will be charged for the locker padlock. This padlock will be bought back by the school if returned in good condition.

General students who are especially skilled in Physical Education work may take major classes with special permission of the instructor.

### A FOUR-YEAR COURSE OF STUDY IN PHYSICAL EDUCATION FOR WOMEN

Majors in Physical Education are required to distribute their core subjects according to the diagram on page 169. Their departmental subjects should be distributed according to the diagram in the first two years, but in the junior and senior years more liberty is allowed in making the distribution.

In addition to the core subjects listed on page 58, the following Physical Education courses are required of majors in the department: P. E. 1, 35, 36, 37, 39, 40, 100, 101, 102, 103, 104, 120, 121, 122, 132, 133, 135, 136, 137.

### REQUIREMENTS FOR THOSE WISHING TO MINOR IN PHYSICAL EDUCATION

Any student wishing to minor in physical education for women must take all courses numbering from P. E. 11 to P. E. 18 inclusive, six of which may be used to meet the general physical educational requirements for all junior college students.

In addition to the above, the following courses must be taken in this department:

Junior college: Ath. 3, P. E. 35, P. E. 37

Senior college: P. E. 103, 104a, 135, 137.

### MAJOR REQUIREMENTS IN PHYSICAL EDUCATION

A four-year course is required of all Physical Education majors. Physical Education students desiring certificates at the end of two years should make primary, intermediate, or junior high school education their minor.

\*Those subjects starred may be taken during any one of the three quarters. Their place in hours is to be substituted by electives during the quarters they are not taken.

Any student majoring in the department who after admission is found to be deficient in any of the major practice courses may be required to take any of the general activity courses without credit.

Majors in the department are required to take, without credit, during their freshman and sophomore years, the courses ranging from P. E. 12 to P. E. 28 inclusive with the exception of P. E. 17. However, any student who has much previous training in any of the above sports may file a request with the head of the department for exemption from said sport.

Suggested electives outside of the Physical Education department which should be of especial value to the Physical Education major are: Household Science 4, Music 1a, Piano, Eng. 12, 13, and 14, Ed. 16, 16a, Chem. 9, and Ath. 122.

The above requirements will give eighteen hours of work in science to be used as a science minor.

#### COURSE OF STUDY

##### 1. CLOG AND ATHLETIC DANCING—Fall and spring quarters. One hour.

This course will contain jigs, clogs, and athletic dances which are especially good for boys and girls in junior high school. Technic will consist of threes, fives, and athletic steps.

##### 2. NATURAL DANCING—Every quarter. One hour.

The purposes of this course are to develop control of the body, to stimulate imagination, to learn to portray emotional self-expression by various movements.

##### 3. NATURAL DANCING—Winter and spring quarters. One hour.

A continuation of P.E. 2 giving more advanced steps, more individual work, beginning scarf work and more advanced exercises which require better coordination.

##### 5. FOLK DANCING—Every quarter. One hour.

Simple dances for beginners in folk dancing. Material depends upon the skill of the class.

##### 6. FOLK DANCING—Every quarter. One hour.

Prerequisite P.E. 5 or its equivalent. This course will present folk dances, especially suited to high school students.

##### 7. NATIONAL AND CHARACTERISTIC DANCING—Winter and spring quarters. One hour.

This course will present typical national and character dances and will be of special value to the major in high school education.

##### 11. PLAYS AND GAMES—Every quarter. One hour.

This course is primarily for primary and intermediate majors and presents both active and singing games in graded form, together with a brief review of the psychological age of the child.

##### 12. SOCCER—Fall quarter. One hour.

A course organized to develop a knowledge of the rules of the game and skill in technic.

##### 13. TENNIS—Fall and spring quarters. One hour.

This course will consist of a study of the rules of tennis and practice in the game. Special attention will be given to the service and forearm and backhand drives.

##### 14. BASKETBALL—Winter quarter. One hour.

This course will consist of a study of the rules of basketball and the development of skill in the technic.

##### 15. BASEBALL—Spring quarter. One hour.

This course will consist of a study of the rules of baseball and the development of skill in it.

##### 16. HOCKEY—Fall quarter. One hour.

The rules of the game will be studied and skill in technic developed.

## 17. VOLLEY BALL—Winter quarter. One hour.

A game that can be played in the intermediate grades and junior high schools.

## 18. FIELD AND TRACK—Spring quarter. One hour.

This course will give practice in the different field and track events that are desirable for girls to participate in, such as dashes, running high jump, discus throw, javelin, and hurdles.

## 26. BEGINNING SWIMMING—Every quarter. One hour.

This course will take up the easier fundamental strokes of swimming, the way of regaining a standing position from either face submerged or floating position, rolling from face to back and vice versa, and beginning diving.

## 27. INTERMEDIATE SWIMMING—Every quarter. One hour.

A course in swimming, taking up the side stroke, with the fine technic of arm and foot action. Continuation and advancement in plain spring diving. P. E. 26 or its equivalent is a prerequisite.

## 28. ADVANCED INTERMEDIATE SWIMMING—Winter and spring quarters. One hour.

A more advanced course, with technical instruction of the crawl strokes and advanced diving. P. E. 26 and 27 or their equivalent are prerequisites.

## 30. INDIVIDUAL GYMNASTICS—Every quarter. One hour.

Open only to those students bearing an admittance slip from the medical adviser. Individual work for individual needs will be given.

## 31. DANISH GYMNASTICS—Winter quarter. One hour.

This course will present the different types of Danish gymnastics. Special emphasis will be laid on flexibility, strength and agility exercises, stall bars, couple exercises and apparatus.

## ACTIVITY COURSES FOR MAJORS OF JUNIOR COLLEGE RANK

The following classes are so arranged that freshmen may take their work with the sophomores without having taken the courses in freshman practice. This has been done because at present the enrollment in the department is too small to warrant giving both courses each year. Freshmen will take sophomore practice courses when offered and sophomores will take freshmen practice courses when offered. The above applies to the senior college practice courses. This arrangement may be changed to separate classes for each by the department staff at any time the need arises.

## 35. FRESHMAN PRACTICE—Fall quarter. (Not given 1929-30.) Two hours.

This practice course is one in beginning folk dancing. The material in the course will depend largely on the previous training of the majors enrolled. The main purpose of the course is to familiarize the student with dances typical of each country, the chief characteristics of each; and to develop skill, rhythm and coordination in the student.

## 36. FRESHMAN PRACTICE—Winter quarter. (Not given 1929-30.) Two hours.

The work of this quarter will be training in Danish Gymnastics. The course aims to (a) develop flexibility, strength and agility in the student; (b) give the student a classification of exercises according to difficulty, progression, and parts of the body exercises; to give practice in leadership through squads and to give training in making daily programs for this type of work.

## 37. FRESHMAN PRACTICE—Spring quarter. (Not given 1929-30.) Two hours.

This practice course presents material in beginning athletic and clog dancing. It will take up in its technic the threes and fives. The exact material used depends on the ability of the students enrolled, but the dances chosen are especially adapted for use in the upper grades of the elementary school and the junior high school.



39. SOPHOMORE PRACTICE—Winter quarter. Two hours.

The work of this course consists of tumbling, apparatus work and pyramid building. The material will cover individual and group work on the mats, parallel bars and horse. The main purpose of the course will be to give such material as can be used in grades and high schools with the least possible equipment.

40. SOPHOMORE PRACTICE—Spring quarter. Two hours.

This course has to do with fundamental exercises which help develop control of the body, fundamental steps of dancing later carried over into the student's own interpretation of music; simple dramatic sketches, group dances and individual dances. The purposes of the course are: (a) to develop control of the body, (b) to stimulate imagination, (c) to learn to portray emotional self-expression by various movements of the body.

THEORY COURSES IN HEALTH EDUCATION FOR JUNIOR COLLEGE AND MAJOR STUDENTS

Hyg. 1. INDIVIDUAL AND SOCIAL HYGIENE (for women). Every quarter. Four hours.

A first year course covering the essentials of personal and community hygiene. The course aims to secure better personal health habits; give an outline of some of the broader fundamental aspects of public or social hygiene; and indicate some of the aims and methods of teaching hygiene in the public schools. Required of all during the first year.

ACTIVITY COURSES FOR MAJORS OF SENIOR COLLEGE RANK

100. JUNIOR PRACTICE—Fall quarter. Two hours.

This course is designed to meet the teaching needs of major and minor students of Physical Education, for their activity groups. The course aims to: (a) give advanced technic in each sport that has been taken during freshman and sophomore years, (b) give methods for presenting sport material, (c) supply references from which list students may find adequate teaching material.

101. JUNIOR PRACTICE—Winter quarter. Two hours.

This course will be divided into two sections meeting at the same time but on different days:

(a) Advanced athletic and clog dancing. This part of the course will meet two days a week. It is similar to P.E. 37 but additional technic made up of the sevens and new dances will be presented. Each student will also be required to hand in an original athletic and clog dance.

(b) Advanced swimming for majors. The course consists of the different strokes of swimming, diving, life-saving, and gives practice in the teaching of swimming. Time will be given to the thorough study of the different methods of instruction in swimming and diving. Students who have done exceptionally good work in P.E. 26 to P.E. 28 inclusive may enroll for this work with special permission from the instructor.

102. JUNIOR PRACTICE—Spring quarter. Two hours.

This course is made up of more advanced folk dances than P.E. 35. It will also give some of the more simple dances leading to Section A of P.E. 103.

103. SENIOR PRACTICE—Fall quarter. Two hours.

This course will be divided into two sections meeting at the same hour but different days of the week:

(a) National and Characteristic Dancing. Three days. This part of the course deals with the dancing characteristics and customs, gives knowledge of costumes, and present national and characteristic dances of different countries.

(b) Natural Dancing. Two days. A continuation of beginning natural dancing with more advanced steps being given, more individual work, beginning scarf work, and more advanced exercises which require better coordination.

104. SENIOR PRACTICE—Winter quarter. Two hours.

This course is also made up of two divisions each meeting at the same hour but on different days:

(a) Playground organization. Two days. This is a course outlined to (a) give knowledge of necessary playground material; (b) study cost, amount and description of playground equipment; (c) give outstanding age

group characteristics; (d) present methods for conducting small and large groups; (e) promote leadership.

(b) Advanced Natural Dancing. Three days. Continuation of natural dancing in regard to steps, fundamental exercises, and scarf work. A study of the dance will be made, such problems as the public performance will be stressed. How to teach beginning dancing and the study of progression, a presentation of dancing material, music, themes, etc.

#### THEORY COURSES FOR PHYSICAL EDUCATION MAJORS OF SENIOR COLLEGE RANK

##### 131. PAGEANTRY—Winter quarter. Two hours.

This work is an elective course for majors and is designed to give an appreciation of the art as developed through motor activities. Pantomines, pageants and festivals, stage lighting, costuming, and make-up will be discussed and opportunity given for practice in the above. Original work will be required.

##### 132. THEORY OF INDIVIDUAL GYMNASTICS—Spring quarter. Four hours.

The purposes of this course are: (a) to give the student a thorough knowledge of the values of posture and the faults of posture most commonly found in growing children; (b) to know deformities which appear in later life, their characteristics and treatment; (c) thorough study of the technic of massage, what it is used for and its results; (d) study the organization of corrective work in elementary, high school, and college; (e) how to organize a posture drive; (f) complete study of how to give thorough posture examination.

##### 133. INDIVIDUAL GYMNASTICS APPLIED—Every quarter. Two hours.

P.E. 132 prerequisite. A laboratory period which gives the student an opportunity to actually see and work with the different cases which comprise a corrective class.

##### 135. HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION—Spring quarter. Four hours.

This course deals with (1) the play activities of man and physical education among civilized races in the light of their general progress; (2) the comparison of the formal and natural physical education program in the light of their aims, objectives, results, and their value in accordance with the modern philosophy of education; (3) the types of work to be included in the program; (4) the administration of such a program from the standpoint of building, grounds, equipment, and staff.

##### 136. SUPERVISION OF PHYSICAL EDUCATION—Every quarter. Four hours.

Two quarters of student teaching a prerequisite. The purpose of this course is to give the student actual practice in supervising student teachers in the elementary school in physical education. The content of the course is as follows: The supervisor plans the work for the student teacher to follow. She is required to meet with the student teacher once a week and work out various problems which arise. She also will be required to meet with the room teacher and the supervisor from the physical education department once a week to check up the work which is being done, and receive suggestions and criticisms as to different methods in solving various problems as a supervisor.

##### 137. MATERIALS AND METHODS IN PHYSICAL EDUCATION—Fall quarter. Four hours.

Purposes: (a) to give the student training in methods of presentation of material to the various age groups; (b) characteristics of the different ages; (c) to give them knowledge of material which is suitable for the different grades; (d) to discuss the problem of the supervision of physical education; (e) to know how to prepare a general course of study for the average school system; (f) to give the student an opportunity to judge good teaching and to know how to self-criticize; (g) to give the student actual practice in teaching.

##### 223. RESEARCH IN PHYSICAL EDUCATION—Every quarter. Four hours.

Taken in the first quarter of graduate work. This is a required seminar and conference course for graduate students who are working on their masters' investigations. The director of educational research meets the group three times each week and confers with individual students in the research office. Small group conferences are held when needed. Each student meets his thesis adviser regularly.

##### 224. RESEARCH IN PHYSICAL EDUCATION—Every quarter. Four hours.

This is the thesis course for masters candidates in physical education in their second quarter of graduate work.

225. RESEARCH IN PHYSICAL EDUCATION—Every quarter. Two hours.

This is the thesis course for masters candidates in physical education in their third quarter of graduate work.

235. HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION—Four hours.

This course covers the same ground as P.E. 135 but additional and more advanced work is required.

#### SENIOR COLLEGE COURSES IN HEALTH EDUCATION FOR MAJORS

120. APPLIED ANATOMY—Fall quarter. Four hours.

This course deals with the structure of the human body and with the principles and mechanism of bodily movements. Most of the time will be spent on the application they have to physical education.

121. KINESIOLOGY—Winter quarter. Two hours.

This course deals with the action of muscles in exercises of different kinds. It deals with the bones as levers and the neuro-muscular system as power. The material is presented with special reference to the use of this system in acquiring and maintaining good posture and in its bearing on the correction of postural defects.

122. APPLIED PHYSIOLOGY—Fall quarter. (Not given 1929-30.) Four hours.

This course deals with the functional processes of the different systems of the body and the effect of exercise upon these systems in its direct bearing on physical education. The different systems studied in the course are: muscular, circulatory, respiratory, digestive, sensory, and nervous systems. Laboratory work is required.

123. PHYSICAL EXAMINATION AND NORMAL DIAGNOSES—(Not given 1929-30.) Spring quarter. Two hours.

This course is elective for majors. It takes up the study of physical examination in regard to the points to be examined, the type of card used, and the proper method of examining. Practical work in examining will be given. A study will be made of the signs and symptoms of different diseases common to the school child—the incubation and quarantine periods.

## PHYSICS

		FIRST YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Spring	Civ'l. 1	Art 1		Civ'l. 1	Fall	Winter
		Ed. 1	Eng. 4		Ed. 1		
		Minor	Hyg. 1		Eng. 0		
Winter	Spring	Phys. Ed.	Mus. 25		Phys. Ed.	Spring	Winter
		Physics 1	Phys. Ed.		Physics 1		
			Physics 1				
Spring	Fall	Art 1	Civ'l. 1		Eng. 4	Fall	Winter
		Elective	Elective		Hyg. 1		
		Minor	Minor		Phys. Ed.		
Winter	Spring	Mus. 25	Phys. Ed.		Physics 2	Spring	Winter
		Phys. Ed.	Physics 2		Physics 5		
		Physics 2					
Spring	Fall	Elective	Ed. 1		Art 1	Fall	Winter
		Hyg. 1	Elective		Minor		
		Observ. 1	Minor		Minor		
Winter	Spring	Phys. Ed.	Phys. Ed.		Mus. 25	Spring	Winter
		Physics 3	Physics 3		Phys. Ed.		
		Psych. 2a			Physics 3		

		SECOND YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Spring	Minor	Elective		Ed. 10	Fall	Winter
		Phys. Ed.	Minor		Eng. 21		
		Physics 103	Obsev. 1		Minor		
Winter	Spring	Psych. 2b	Phys. Ed.		Phys. Ed.	Spring	Winter
		Teaching 1	Physics 103		Physics 103		
			Psych. 2a				
Spring	Fall	Ed. 10	Phys. Ed.		Elective	Spring	Winter
		Eng. 21	Physics 5		Eng. 22		
		Phys. Ed.	Physics 104		Observ. 1		
Winter	Spring	Physics 5	Psych. 2b		Phys. Ed.	Winter	Winter
		Physics 104	Teaching 1		Physics 104		
					Psych. 2a		
Spring	Fall	Eng. 22	Ed. 10		Minor	Spring	Winter
		Hist. 125	Eng. 21		Phys. Ed.		
		Minor	Minor		Physics 111		
Winter	Spring	Phys. Ed.	Phys. Ed.		Psych. 2b	Winter	Winter
		Physics 111	Physics 111		Teaching 1		

		THIRD YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Spring	Hist. 126	Eng. 22		Ed. 10	Fall	Winter
		Minor	Hist. 125		Minor		
		Physics 11	Physics 11		Physics 11		
Winter	Spring	Physics 105-107	Physics 105-107		Physics 105-107	Spring	Winter
Spring	Fall	Ed. 116	Ed. 116		Hist. 125	Spring	Winter
		Elective	Hist. 126		Minor		
		Minor	Minor		Minor		
Winter	Spring	Physics 12	Physics 12		Physics 12	Winter	Winter
Spring	Fall	Elective	Elective		Hist. 126	Spring	Winter
		Minor	Minor		Minor		
		Obsev. 2	Minor		Minor		
Winter	Spring	Physics 13	Physics 13		Physics 13	Winter	Winter
		Psych. 105					

		FOURTH YEAR					
		Sec. A	Sec. B		Sec. C		
Fall	Spring	Minor	Elective		Ed. 116	Fall	Winter
		Minor	Minor		Minor		
		Physics 121	Obsev. 2		Physics 121		
Winter	Spring	Teaching 2	Physics 121		Soc. 105	Spring	Winter
			Psych. 105				
Spring	Fall	Elective	Minor		Elective	Spring	Winter
		Minor	Minor		Obsev. 2		
		Physics 108	Physics 108		Physics 108		
Winter	Spring	Soc. 105	Teaching 2		Psych. 105	Winter	Winter
Spring	Fall	Ed. 111	Ed. 111		Ed. 111	Spring	Winter
		Geog. 100	Geog. 100		Geog. 100		
		Minor	Minor		Minor		
Winter	Spring	Minor	Soc. 105		Teaching 2	Winter	Winter

## PHYSICS

The various courses in the Physics Department have primarily the object of preparing teachers to teach physics in the secondary schools and colleges. Students majoring in other departments may find it profitable to elect physics as a minor. This is especially true in the science field where teachers are expected to teach more than one science. A major in the department consists of fifty-two hours and a minor of twenty-four hours. The requirements for a major and minor are given below.

### A FOUR-YEAR COURSE OF STUDY IN PHYSICS

Majors in Physics are required to distribute their core subjects according to the diagram on page 176. Their departmental subjects should be distributed according to the diagram in the first two years, but in the junior and senior years more liberty is allowed in making the distribution.

In addition to the core subjects listed on page 58, the following courses are required of majors in the department: Phys. 1, 2, 3, 5, 11, 12, 13, 103, 104, 105, 107, 108, 111, 121.

The Physics major should also elect Math. 1, 2, 106, and Geol. 100 and Astronomy 106.

It is suggested that a Physics major should elect two minors, one of which will be a science. The following minors are suggested: chemistry, biology, mathematics, administration, and physical education or athletics. Other minors may be selected with the approval of the departments concerned.

**\*1. ELEMENTARY COLLEGE PHYSICS—Fall quarter. Four hours.**

Fee \$3.00.

The quarter is divided roughly into three units of study. The work of the world, man's mastery over machines and the fundamental nature of things. The topics are treated from a humanistic rather than a technical viewpoint. The technical side is not avoided but rearranged in such a way as to provide the student with an appreciation of the development of man's mastery over matter and energy. The course will consist of lectures, demonstrations, reading assignments, and laboratory experiments arranged about the units mentioned above.

**\*2. ELEMENTARY COLLEGE PHYSICS—Winter quarter. Four hours.**

Fee \$3.00.

This quarter is a continuation of the work of the fall quarter. The work is divided roughly into three units of study: The nature and structure of the atom, the transmission of energy thru space, and the relation of sound, light and radio waves. The same methods are followed as in the first quarter.

**3. ELEMENTARY COLLEGE PHYSICS—Spring quarter. Four hours.**

Fee \$3.00.

The work during the spring quarter is a continuation of the fall and winter quarter and is arranged around three units of study: radiant energy, the utilization of energy and electricity the servant of man.

**4. PHYSICS CONTENT OF GENERAL SCIENCE—Winter quarter. Four hours.**

Fee, \$3.00.

A course in the physics content of general science, especially arranged for prospective general science teachers. The content will be based upon the physics content of widely used general science texts. The course will consist of lectures, demonstrations, and individual laboratory experiments. The student will be expected to work out demonstrations and experiments which will be used later in teaching general science.

**5. PHOTOGRAPHY—Winter quarter. Four hours.**

Fee, \$3.00.

This course is arranged especially for science teachers and teachers of other subjects interested in making use of photography in their classes.

\*Given also by extension.

The course will consist largely of laboratory instruction in the art of taking pictures, developing, preparing chemicals, printing, lantern slide making and coloring, and enlargement. Considerable attention will be given to copying so that teachers may take advantage of the wealth of illustrative material found in books and magazines. It is possible for a student to prepare and work out visual materials for a given course. A technical knowledge of physics is not required.

**10. ELEMENTARY HOUSEHOLD PHYSICS—Spring quarter. Four hours.**

A course based upon the questions raised by the problems within the home. Considerable attention is given to the discussion and demonstration of problems in heat, light, and electricity. A survey is made of the questions raised by housewives and the course based upon these questions.

**11. GENERAL COLLEGE PHYSICS—Fall quarter. Four hours.**

Fee, \$3.00.

This course is based upon the problems raised in Millikan's text, "Mechanics, Molecular Physics and Heat." The laboratory experiments are preceded and supplemented by lectures and demonstrations of the principles involved. The student is required to make an accurate report of the experiments and problems. The student should have a working knowledge of logarithms and understand elementary trigonometry.

**12. GENERAL COLLEGE PHYSICS—Winter quarter. Four hours.**

Fee, \$3.00.

A continuation of Physics 11. This course is based on a text by Millikan and Mills, "Electricity, Sound and Light." The same methods and procedure are followed as in the previous course. The discussion and laboratory problems, however, are centered about electricity.

**\*13. GENERAL COLLEGE PHYSICS—Spring quarter. Four hours.**

Fee, \$3.00.

A continuation of Physics 12 but devoted to the study of light and sound.

**103. THE PRINCIPLES OF RADIO RECEPTION—Fall quarter. Four hours.**

Fee, \$3.00.

This course consists of lectures, demonstrations and experiments based upon three units of study: The reproduction and amplification of sound; the vacuum tube, and the modern radio receiver. The purpose of the course is to prepare science teachers to handle the problems raised by pupils in the secondary schools concerning radio. The student electing the course should have had a course in elementary electricity.

**104. THE PRINCIPLES OF RADIO TRANSMISSION—Winter quarter. (Not given 1929-30.) Four hours.**

Fee, \$3.00.

This course deals with the principles underlying radio transmission. It will consist of lectures, demonstrations and experience in the operation of a broadcasting station. The purpose of the course is to prepare students for teaching the principles underlying radio transmission, which are basic and fundamental in modern physical science.

**105. HIGH FREQUENCY PHENOMENA—Fall quarter. Two hours.**

Fee, \$3.00.

A course based upon the experiments and literature in the field of high frequencies or short waves. It is in this field that most of the experiments in radio television and trans-oceanic telegraphy and telephony are being conducted. This course should be preceded by Physics 103 or 104.

**107. MODERN PHYSICS—Fall quarter. Two hours.**

This course is a review of the development in the field of physics beginning with 1895. It will consist of illustrated lectures and demonstrations and will involve the study of radio activity, the nature and structure of the atom, space, time and gravitation. It will include a review of the literature in the field of modern physics.

**108. METHODS OF TEACHING HIGH SCHOOL PHYSICS—Winter quarter. Four hours.**

A review of the literature in the field and experience in the organization of subject matter, experiments and demonstrations according to accepted principles. The purpose of the course is to prepare the teacher in a professional way to meet the problems of teaching physics. Considerable attention will be given to laboratory and demonstration equipment, costs, sources of materials, tests, bibliography, etc.

\*Given also by extension.

**111. PHYSICS OF THE AUTOMOBILE**—Spring quarter. (Not given 1929-30.) Four hours.

A study will be made of the principles common to all automobiles. The course will be conducted chiefly on the basis of excursions to various sales-rooms where the automobile can be studied first hand. The different makes of automobiles will be compared and the physical principles involved and common to all of them discussed.

**114. PHYSICS OF MUSICAL INSTRUMENTS**—Winter quarter. Four hours.

A course offered especially for music majors, but valuable to all interested in the nature of sound and sound producing instruments. It will consist chiefly of illustrated lectures and demonstrations. The principles of sound, musical instruments, amplification and reproduction of sound as well as acoustics will be discussed. There are many phenomena of sound met with in everyday life which are not understood by most people. The course is nontechnical in character.

**115. LIGHT AND COLOR**—Fall quarter. (Not given 1929-30.) Four hours.

A nontechnical course offered especially for art students involving the principles of light, shade and color. It will consist of illustrated lectures and demonstrations.

**121. DIRECT AND ALTERNATING CURRENTS**—Fall quarter. (Not given 1929-30.) Four hours.

An advanced course in the theory of direct and alternating currents with the main emphasis upon alternating currents. It will consist of problems, lectures and demonstrations, as well as a survey of the local problems of generation, distribution and measurement.

**223. RESEARCH IN PHYSICS**—Every quarter. Four hours.

Taken in the first quarter of graduate work.

This is a required seminar and conference course for graduate students who are working on their masters' investigations. The director of educational research meets the group three times each week and confers with individual students in the research office. Small group conferences are held when needed. Each student meets his thesis adviser regularly.

**224. RESEARCH IN PHYSICS**—Every quarter. Two hours.

Fee, \$3.00.

An individual research course in connection with the graduate thesis. This is a conference course designed to guide students in the selection of problems, method of procedure, and interpretation of results. It should be elected only after consultation with the head of the department.

**225. RESEARCH IN PHYSICS**—Two hours.

Fee, \$3.00.

This is a continuation of Physics 224.

## SCIENCES

**1. OUTLINES OF SCIENCE**—Every quarter. Four hours.

The purpose of this course is to provide the student with some important information related to the various sciences; to make life richer to him because he sees deeper into the mysteries of the universe and is able to satisfy some curiosities as to the relation of causes and effects, and to see the reasons for some common phenomena, and to serve the student as an orientation course as well as a culture course.

The course includes topics dealing with the earth and its relation to other bodies in the universe, forces which hold the earth and other bodies in certain relations to each other, the development of the earth and other planetary bodies, the materials in the earth's crust and their transformation into plant and animal life, and the relation of climatic conditions to such life.

**2. OUTLINES OF SCIENCE**—Every quarter. Four hours.

This course is a continuation of course 1. The general purpose is the same, but this course carries through the development from the inorganic material of the earth to the highest type of life.

The content of the course is a study of unicellular plants and animals as to life habits, methods of reproduction, etc.; the intermediate forms of life, how they are related to each other, and how they are related to the lower forms; the theories as to how changes and development occur; the laws of heredity as applied to plants and animals; a study of man in his relation to his environments, and how he has modified the development of plants and animals; and man's relation to his physical and chemical environment, and how he has gained increasing control over these.

SOCIOLOGY

FIRST YEAR

	Sec. A	Sec. B	Sec. C	
Fall	Civ'l. 1 Ed. 1 Phys. Ed. Sci. 1 Soc. 1	Art 1 Eng. 4 Hyg. 1 Mus. 25 Phys. Ed. Soc. 1	Civ'l. 1 Ed. 1 Eng. 0 Phys. Ed. Soc. 1	Fall
Winter	Art 1 Elective Mus. 25 Phys. Ed. Sci. 2 Soc. 2	Civ. 1 Elective Phys. Ed. Sci. 1 Soc. 2	Elective Eng. 4 Hyg. 1 Phys. Ed. Soc. 2	Winter
Spring	Elective (2 hrs.) Hyg. 1 Observ. 1 (2 hrs.) Phys. Ed. Psych. 2a Soc. 3	Ed. 1 Phys. Ed. Sci. 2 Soc. 3 Soc. 10	Art 1 Hist. 10 Mus. 25 Phys. Ed. Sci. 1 Soc. 3	Spring

SECOND YEAR

	Sec. A	Sec. B	Sec. C	
Fall	Phys. Ed. Psych. 2b Soc. 4 Teaching 1	Elective (2 hrs.) Minor Observ. 1 (2 hrs.) Phys. Ed. Psych. 2a Soc. 4	Ed. 10 Eng. 21 Phys. Ed. Sci. 2 Soc. 4	Fall
Winter	Ed. 10 Eng. 21 Phys. Ed. Soc. 5	Minor Phys. Ed. Psych. 2b Soc. 5 Teaching 1	Eng. 22 Observ. 1 (2 hrs.) Phys. Ed. Psych. 2a Soc. 5	Winter
Spring	Eng. 22 Hist. 125 Minor Phys. Ed. Soc. 6	Ed. 10 Elective Eng. 21 Phys. Ed. Soc. 6	Minor Phys. Ed. Psych. 2b Soc. 6 Teaching 1	Spring

THIRD YEAR

	Sec. A	Sec. B	Sec. C	
Fall	Hist. 126 Minor Soc. 10 Soc. 98	Eng. 22 Hist. 125 Soc. 10 Soc. 98	Ed. 10 Minor Soc. 10 Soc. 98	Fall
Winter	Ed. 116 Elective Minor Soc. 100	Elective Hist. 126 Minor Soc. 100	Elective Hist. 125 Minor Soc. 100	Winter
Spring	Elective Observ. 2 (2 hrs.) Psych. 105a Soc. 110	Ed. 116 Elective Minor Soc. 110	Elective Hist. 126 Minor Soc. 110	Spring

FOURTH YEAR

	Sec. A	Sec. B	Sec. C	
Fall	Soc. 120 Soc. 125 Teaching 2 Minor	Observ. 2 Psych. 105a Soc. 120 Soc. 125	Ed. 116 Soc. 105 Soc. 120 Soc. 125	Fall
Winter	Minor Soc. 105 Soc. 130 Soc. 135	Elect. Eng. Soc. 130 Soc. 135 Teaching 2	Elective Observ. 2 Psych. 105a Soc. 130 Soc. 135	Winter
Spring	Ed. 111 Elect. Eng. Elective Minor	Ed. 111 Elective Elective Minor Soc. 105	Ed. 111 Elect. Eng. Minor Teaching 2	Spring



## SOCIOLOGY

The primary object of this department, as of all other departments of the College, is to prepare teachers, principals, supervisors and superintendents for service in the schools, particularly the schools of Colorado.

Inasmuch as schools are social agencies and those engaged in conducting them are social servants, it should be obvious that such preparation is incomplete without a knowledge of the science of society, namely, sociology, particularly in its relation and applications to education. Almost every educational problem is at bottom a social problem, or at least educational problems may best be solved through an understanding of their social setting. Some knowledge of sociology is therefore of great practical importance to everyone engaged in school work. The first object of this department, then, is to provide such knowledge of sociology, and the social problems arising in connection with the school, as is thought to be necessary to everyone who is in any way engaged in school work.

There is, however, a second purpose. There is an ever increasing demand for teachers of the social sciences. Sociology, cultural anthropology, economics, and comparative religion, the subjects in which courses are here offered, all belong to this group. Sociology particularly provides an excellent background and preparation for the teaching of any of the other social sciences, such as history, geography, civics, etc., and the courses in anthropology and economics are especially helpful in this regard. This department aims specifically to aid in equipping the student for successful teaching in any of the social sciences, as well as for supervisory and administrative work. Graduates of the department often secure positions in social welfare work.

To meet the purposes above indicated, a series of courses is offered in sociology proper, social anthropology, economics, and comparative religion.

### A FOUR-YEAR COURSE OF STUDY IN SOCIOLOGY

Majors in Sociology are required to distribute their core subjects according to the diagram on page 180. Their departmental subjects should be distributed according to the diagram in the first two years, but in the junior and senior years more liberty is allowed in making the distribution.

In addition to the core subjects listed on page 58, the following courses are required of majors in the department: Soc. 1, 2, 3, 4, 5, 6, 10, 98, 100, 110, 120, 125, 130, 135. A minor of twelve to twenty-four hours must be chosen.

Courses 1, 2, 3, 4, and 98 should be taken, if possible, in the order indicated and before the senior college required course, namely, 105.

\*1 INTRODUCTION TO THE SOCIAL SCIENCES—Fall and spring quarters. Four hours.

This course is the beginning of Course 2 which completes it as a unit of study. It is designed to give the student a general acquaintance with the whole field of the natural sciences, to stimulate interest in the study of science, and in the lives and achievements of the outstanding men who have contributed most to the development of science. Following a brief consideration of what science is, the nature and importance of the scientific method of study, how and why the various sciences have originated and the unity of science notwithstanding its various divisions, the most striking facts, incidents, and discoveries in the main branches of science are set forth with the design not only of awakening interest in science but also of enlarging the student's knowledge of the general field so that he may determine more intelligently the direction of his further scientific study. In this half of the course, owing to lack of time, only the field of the physical and biological sciences is covered.

\*Given also by extension.

**2. INTRODUCTION TO THE SOCIAL SCIENCES—(A continuation of Course 1)—Winter and summer quarters. Four hours.**

In this second half of the full course indicated by numbers 1 and 2, the field of psychology and sociology is surveyed in the manner and with the purpose indicated in Course 1, chief emphasis being laid upon the main facts and discoveries with respect to the mind and society, and the most interesting incidents in the lives and works of those who have contributed most to the development of science in this particular field. This course, together with Course 1, is intended to provide the student with a comprehensive view of all the sciences, with such knowledge of them as every citizen should possess, and particularly every teacher, and to stimulate the interest of the student so that all the work of his college course may be more pleasurable and interesting.

**\*3. EDUCATIONAL SOCIOLOGY—Winter and summer quarters. Four hours.**

This is an elementary course in sociology as bearing particularly upon education; a course in which the problems of school organization, management, discipline and instruction, and those naturally arising from the teacher's relation to the community, are approached from the social and sociological point of view. It aims to present just that contribution of sociology that is regarded as essential to successful teaching in the elementary schools. No teacher should begin work in the schools without it or its equivalent.

**\*4. RURAL SOCIOLOGY—Winter and summer quarters. Four hours.**

The design of this course is not to prepare the teacher for the immediate task of teaching in the rural schools; that is done in courses in Education on rural schools; but it is rather to prepare teachers and principals in rural communities to discharge their duties to the community through an understanding of community life. The course is concerned, then, not directly with the rural school but with the rural community. It focuses attention on the community as a social group, just as in Sociology 5 attention is centered on the family as a social group. Topics considered are such as the origin and development of the modern rural community, its population status, its social, economic and religious institutions in their relations to the school, its various types of organization to promote its own welfare, and how the teacher may best aid in such work.

**\*5. THE FAMILY—Spring and summer quarters. Four hours.**

A treatment of the origin and development of the family in all its forms; its changing economic and legal status, as well as that of women and children; divorce and the other domestic problems arising from our changing industrial and social order, together with the current theories of domestic reform, radical and conservative.

**6. CHILD WELFARE—Fall and spring quarters. Four hours.**

A systematic study of the social conditions affecting the welfare of children in order to provide the necessary criteria by means of which the teacher, the parent or the social worker will be better enabled to approach and evaluate the special phases of child welfare that are the particular concern of these persons. The following are some of the topics discussed: Conservation of child life, birth rates and accompanying social phenomena, child mortality—its underlying causes and the methods of its prevention; health and the physique of children as socially affected, and the means by which they may be established and maintained; juvenile delinquency, its nature, causes and treatment; dependent children, causes of dependency and its method of treatment.

**10. ELEMENTARY ECONOMICS—Fall and spring quarters. Four hours.**

This is primarily a descriptive course explaining the terms of economics and giving such acquaintance with our industrial life as is essential to the conduct of ordinary business affairs. It gives a general and unified acquaintance with our modern industrial order such as every teacher and every citizen should have. It is preparatory to course 110. Students will visit various industrial institutions to get knowledge at first hand.

**96. GENERAL ANTHROPOLOGY—Fall quarter. Four hours.**

A general and comparative elementary study of primitive peoples, their physical characteristics, beliefs, customs, arts, industries, forms of government, and religions. This course is illustrated by concrete material, relating particularly to the primitive inhabitants of North and South America. It is an introduction to and a preparation for the courses immediately following as well as for all the more advanced courses in sociology.

\*Given also by extension.

**98. THE ORIGIN, DEVELOPMENT AND ANTIQUITY OF MAN AND HIS SUPERSTITIONS—Winter quarter. Four hours.**

A presentation of the knowledge that has been accumulated with respect to early man and the earlier human cultures, with such scientific inferences as seem to be warranted by the facts thus far discovered.

**100. EARLY CIVILIZATION IN EUROPE AND AMERICA—Spring quarter. Four hours.**

A study of the peopling of Europe and of North and South America, devoting particular attention to the early civilization of the Peruvians, Mexicans and the southwest Indians of the United States. The course is illustrated by lantern slides and a fine collection of material exemplifying early American art and industry.

**105. AN INTRODUCTION TO THE SCIENCE OF SOCIOLOGY—Every quarter. Four hours.**

This course is a study of the nature, history, scope and methods of sociology, with brief sketches of the leading contributors to this science, and an exposition of the main principles of sociology as set forth systematically in a selected text. Lectures, readings and reports. Required of senior college students.

**106. ADVANCED SOCIOLOGY—Winter quarter. Four hours.**

This course is a continuation of the preceding course and involves a more intensive study of sociology as a science, and of its main contributions to our knowledge of the world. Particular attention is given to the relationship of sociology and sociological principles to school supervision and administration.

**110. PRINCIPLES OF ECONOMICS—Winter and summer quarters. Four hours.**

This course naturally follows, and should be taken if possible immediately after, Number 10. It is based upon one of the recognized texts in economics. Attention is devoted chiefly to the phenomena of production, distribution and exchange, with a view to preparing the student for the intelligent discussion of the various present day economic problems, such as immigration, the tariff, currency reform, taxation, insurance and like topics. With Course 10 followed by this course the student should be prepared to teach the subject of economics in the high schools.

**120. SOCIAL MEASUREMENTS, SURVEYS AND STATISTICS—Spring quarter. Four hours.**

The purposes of this course are to acquaint the student with the methods employed in sociology in the study of group phenomena, and to enable him to conduct a social survey and to present and interpret scientifically the data so collected. It is regarded as essential to the scientific investigation of a social situation. Practice will be given in the application of the methods discussed.

**122. COMPARATIVE RELIGION—Every quarter. Four hours.**

A study of the world's principal living religions, such as Buddhism, Confucianism, Hinduism, Mohammedanism and Christianity, with due attention to their founders, principal doctrines, rites and ceremonies.

**125. MODERN SOCIAL PROBLEMS—Fall, spring and summer quarters. Four hours.**

An intensive study of practical social problems such as poverty, crime, divorce, immigration, the race problem in America, etc., with particular attention to the scientific methods employed in the study of such problems. As different problems are likely to be discussed each quarter, the course may be repeated as Sociology 125b and 125c.

**130. THE SOCIOLOGICAL ASPECTS OF PATRIOTISM, PEACE, AND WAR—Summer quarter. Four hours.**

In this course an attempt is made to conduct the student thru an intensive and scientific study of the subjects mentioned, stressing the benefits as well as the evils of war, the effects of peace and the proposed methods of securing it, and the nature and kind of patriotism that should be taught in the schools, with the most approved methods of such teaching.

**135. RACES, RACE CONTACT AND RACE PROBLEMS—Summer quarter. Four hours.**

The origin, development, distribution and differentiation of races, their chief characteristics; the effects of race contact and the problems arising

from it; the question of race inferiority; the Nordic question, etc. These are the principal topics discussed in this course. Materials and illustrations are drawn in part from Dr. Howerth's experiences in a recent trip around the world.

**136. SOCIAL PSYCHOLOGY—Fall quarter. Four hours.**

A study of suggestion and imitation and their employment in education; the methods employed in propaganda and advertising; the crowd spirit; mobs; fads; fashions; booms; crises; conventionality; custom; conflict; leadership and like topics.

**140. THE DEVELOPMENT OF SOCIAL THOUGHT—Winter quarter. Four hours.**

This course gives a sketch of social thought from the earliest times down to today, with a brief account of the great social thinkers of the past and the present. It is "The Story of Social Philosophy."

**150. THE SOCIAL THEORY OF EDUCATION—Winter quarter. Four hours.**

A philosophy of education based upon the doctrine of organic, psychic and social evolution. It is a study of the manner in which nature educates, and endeavors to show how the principles and laws of education are derived from a study of nature's methods, with the application of these principles, methods and laws in artificial education; it compares the aims of nature with the aims of artificial education, considers the final aim of educational effort, the school as a social instrument, and the relation of education to social progress. In a word all the various topics usually considered in a course on the philosophy of education are discussed from the sociological and evolutionary viewpoint. The text in this course is Dr. Howerth's "Theory of Education."

**200. SEMINAR—When requested by six or more students. Four hours.**

The work of the seminar, which involves independent, scientific investigation under the direction of the instructor, and to which only graduate students are admitted without his special permission, consists in the investigation of a selected sociological problem, or the intensive study of the doctrines of one or more of the leading sociologists of the world, present or past. The course may be continued for eight additional hours as Sociology 201 and 202.

**223. RESEARCH IN SOCIOLOGY—Every quarter. Four hours.**

This is a required seminar and conference course for graduate students who are working on their masters' theses. The Director of Educational Research meets the group of such students three times a week and confers with individual students in his office. Small group conferences are held occasionally. Each student is expected to meet his thesis adviser regularly. It is expected that this course will be taken in the first quarter of graduate work.

**224. RESEARCH IN SOCIOLOGY—Every quarter. Four hours.**

This is the thesis course for masters candidates in Sociology in the second quarter of their graduate work.

**225. RESEARCH IN SOCIOLOGY—Every quarter. Two hours.**

A continuation of Sociology 224.

# INDEX

Page	Page		
Administration .....	7	Extension Department .....	28
Administration Building .....	21	Extra-Mural .....	34
Admission .....	49	Faculty .....	8-18
Adult Admisson .....	49	Fees and Expenses .....	26
Advanced Standing .....	52	Fellowships .....	42
Anthropology .....	182	Folk Dancing .....	171
Architectural Drawing .....	152	Foreign Languages .....	125
Art .....	59	Fraternities .....	45, 46
Art Metal .....	152	Freshmen Enrollment .....	50
Athletics—Men .....	66	French .....	127
Women .....	169	Function of Teachers College .....	25
Bachelor of Arts Degree.....	57, 58	Gardens .....	24
Bacteriology .....	76	Geography .....	131
Belford Hall .....	23	Geology .....	133
Biology .....	71	German .....	129
Biotics .....	74	Gifts to the College .....	46
Board and Room .....	27	Gordon Hall .....	23
Board of Trustees .....	7	Government of the College .....	25
Bookbinding .....	153	Grading System .....	51
Botany .....	73	Graduate Council .....	7
Buildings .....	21-23	Graduate Loan Funds .....	44
Calendar .....	2	Graduate Work .....	39-42
Campus .....	24	Graduate Fellowships .....	42
Certificates .....	52, 57	Graduation .....	52
Chemistry .....	77	Gymnasium .....	22
Christian Associations .....	45	History and Political Science .....	136
Civilization .....	91	History of the College .....	21
Club House .....	22	Home Economics .....	143
Commercial Education .....	84	Honorary Fraternities .....	45, 46
Conditional Admission .....	49	Housing Regulations .....	26
Conservatory of Music—		Industrial Education .....	150
Building .....	22	Italian .....	130
Course of Study .....	164	Jackson Field .....	24
Faculty .....	15	Journalism .....	122
Contemporary Civilization .....	91	Languages .....	126
Contents .....	3	Latin .....	129
Core Subjects .....	58	Leathercraft .....	153
Correspondence Courses .....	28	Length of Course .....	58
Course of Study .....	57-184	Library—	
Credits .....	53	Course of Study .....	157
Curricula .....	57	Faculty .....	16
Dancing .....	171	Literature and English .....	118
Debating .....	121	Life Certificate .....	52, 57
Decker Hall .....	23	Limited Certificate .....	52, 57
Degrees .....	52, 57	Living Accommodations .....	26, 27
Diplomas and Degrees .....	52	Loan Funds .....	44, 45
Dormitories .....	23	Location of the College .....	21
Dramatic Art .....	123	Maintenance of the College .....	25
Economics .....	183	Matriculation .....	50
Education .....	96	Master of Arts Degree .....	39, 52
Educational Psychology .....	110	Mathematics .....	159
Educational Research .....	109	Mechanical Drawing .....	152
Elementary Science .....	76	Modern Languages—Foreign .....	126
Elementary Training School .....	33	Music .....	163
English and Literature .....	118	Newman Club .....	45
Enrollment .....	50, 53	Officers of Administration .....	7
Entrance Requirements .....	49		
Equipment .....	24		
Expenses .....	26		

## INDEX (Continued)

	Page	Page	
Officers of the Board of Trustees	7	School of Adults	49
Oral English	121	School Publicity	106
Orchestral Music	167	Science	76, 179
Organ	167	Sociology	180
Physical Education—		Spanish	128
Men	66	Standard of the College	25
Women	169	Student Teaching	34
Physical Examination	26	Student Government	25
Physics	176	Student Loan Funds	44, 45
Physiography	134	Summer Quarter	27
Piano	166	Summer School Faculty	17
Placement Bureau	29	Teachers Bureau	29
Plant	21	Ten-hour Rule	50
Political Science	141	Tests and Measurements	114
Printing	153	Training Schools	22, 33-35
Psychology	110	Trustees	7
Publicity	106	Tuition	26, 27
Religious Organizations	45	Unclassified Students	49
Required Work	50	Ungraded School for Adults	49
Research Bureau	109	Unit of Credit	53
Residence Requirements	52	Violin	166
Romance Languages	127	Voice Culture	166
Rooming Regulations	26	Water Supply	24
Rooms	27	Woodworking	151
Secondary Training School	34	Y. M. C. A.	45
Scholarships	42, 43	Y. W. C. A.	45
Scholastic Rating	51	Zoology	74
School Gardens	24		







**COLORADO STATE TEACHERS COLLEGE**

**I**s a Class A member of the American Association of Teachers Colleges and of the North Central Association of Colleges and Secondary Schools.



COLORADO STATE TEACHERS COLLEGE

BULLETIN

SCHOOL

*for*

Custodians, Janitors  
and Engineers

A short course for men who  
want to become better care-  
takers of Public Buildings.

---

June 10-15, 1929  
Greeley, Colorado

---

---

Series XXIX

MAY

Number 2

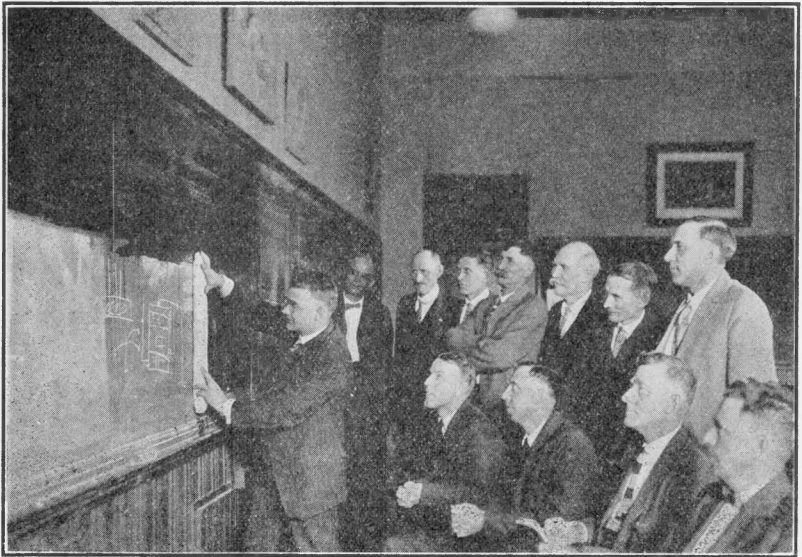
Published Monthly by Colorado State Teachers College, Greeley, Colorado.  
Entered as second class matter at the Postoffice at Greeley, Colorado, under  
the Act of August 24, 1912.

## CUSTODIANS MUST BE EQUIPPED

Demand for competent custodians of public buildings is greater today than it ever has been before, and in addition, owners of buildings—both private and public—are requiring that the custodians be more than just janitors. Each passing year sees the requirements in men holding positions of caretakers, custodians, and engineers more and more stringent.

It is to meet these requirements that Colorado State Teachers College is conducting its School for Custodians, Janitors, and Engineers. For the fifth successive year this college has conducted such a school, and each succeeding year demonstrates not only the need of the type of instruction as given the students, but the advantages and widespread results.

The influence of this unique school—planned particularly for men who do the actual janitorial work in the public schools—has spread over such a large area and aroused so much favorable attention that arrangements have been made now to enroll the custodians and engineers of all public buildings. Since the organization and development of this school, inquiries have been received from the owners and agents of a number of larger corporations and office buildings, and



The Proper Method for Cleaning Blackboards

the administration has deemed it not only advisable but an obligation to open the classes to all of those persons entrusted with the care of buildings.

During the past year the heads of several institutions of higher learning and the superintendents of buildings and grounds in colleges and universities have sought information concerning the school to the end that one or more of their custodians might attend the classes. Communications have been received from distant points, including Texas, Kansas, and Ohio.

## SCHOOL BOARDS ACT

Results following the attendance of custodians at the special school in Greeley have been such as to induce school boards in a number of communities to insist that their janitors or engineers return for more work, while still others, having evidence of the effect of the short course on the school plants, have voted to pay the expenses of their caretakers for a week at the college.

Colorado's school buildings and grounds have shown extensive improvement since the establishment of this school for custodians. Classrooms, halls, blackboards and the premises in general are cleaner and in better condition than they have ever been before. Visitors to schools have freely commented on the improved conditions.

Those custodians who have attended the classes have gone home enthusiastic about their jobs. They themselves have declared that they view their jobs in a different light.

### SOME THINGS CUSTODIANS SHOULD KNOW

They should know how to allay dust and disease germs—not stir them up—

They should know how to repair furniture—

They should know how to ventilate a building—

They should know how to care for school grounds—

They should know how to oil floors—

They should know how to *clean* blackboards—

They should know how to care for toilets and rest rooms—to the end that the school building is a healthy place for children to spend most of their time in.

They should know how to fire a furnace or stoke a boiler—not simply shovel coal. Many school districts have spent hundreds of thousands of dollars for coal that produced no heat, because the janitor didn't know how to handle the heating plant.

They should know how to get along with pupils and teachers.

### INFORMATION FOR SCHOOL BOARDS

Many janitors do not have an adequate notion of what their job implies.

Among janitors of approximately the same degree of willingness to serve, some render an efficient service while others are near failures. Right training will improve the methods of your inefficient but willing janitor. Contact with other competent janitors and opportunities to visit such janitors in their own schools where a high class service is being rendered will inspire your janitor to more efficient service.

Ideals of better service will be emphasized.

How to economize time and effort and at the same time improve the quality of work will be demonstrated.

Your janitor will see the best method yet developed for washing blackboards, scrubbing floors, repairing certain fixtures, etc.

Your janitor will be taken to the furnace room and there shown how to fire, how to regulate drafts, etc., so that he may annually save to your community at least the amount of his salary.

Sweeping compounds, brooms, brushes, oils, and other janitorial supplies will be exhibited at the school. Instructors will show how and under what conditions to use various materials and tools.

Moving pictures will depict methods of firing, cleaning, etc.

Your janitors will visit school buildings in operation that are being cared for in the most scientific and economical manner.

## INFORMATION FOR JANITORS

You will see how other janitors do their jobs.

Janitors from different parts of the country will be telling how they do their work.

You will be shown easier and better ways of handling your work.

Your job will become easier because of improved methods.

You will receive a diploma showing that you have attended a school where your problems have been intelligently studied.

You will be in a position to render more efficient service.

There will be moving pictures of how others are doing their work.

A tourist camp will be made free to you if you want to drive in your own car.

You will enjoy going to school again. You will be guests of the Colorado State Teachers College. There'll be horseshoe tournaments, a picnic, and free tickets to Greeley theaters.

Business men have conventions, farmers have institutes, teachers have summer schools—

AND NOW, A WEEK'S CONVENTION FOR CUSTODIANS, JANITORS, AND ENGINEERS.



Superintendent R. G. Dempsey Demonstrating How to Maintain a Good Campus

## THE COURSE OF STUDY

The course of study is divided into three sections: (1) Heating and Ventilating; (2) Maintenance; (3) Sanitation. In order to complete the work in any course the student must attend two sessions and only two courses may be carried at any one session.

The content of the various courses is essentially as follows:

## 1. HEATING AND VENTILATING

### *First year:*

Firing, cleaning, maintenance, repairing, adjusting systems of an elementary type.

### *Second year:*

Types of heating and ventilating systems. Theories of ventilation. Use, care and operation.

## 2. MAINTENANCE OF THE SCHOOL PLANT

### *First year:*

Upkeep and repair of buildings. Care of the floors, walls, furniture, rugs, curtains, laboratories, equipment.

### *Second year:*

Upkeep of grounds, landscaping, care of lawns, trees and shrubbery. Playground apparatus. Outdoor equipment.

## 3. SANITATION:

### *First year:*

Cleaning of floors, walls, blackboards, furniture, windows, woodwork, drinking fountains, and lavatories.

### *Second year:*

Theories of sanitation. Fundamentals of public health and social hygiene. Practical training in modern methods of cleaning and proper materials and facilities.

In addition to the above technical courses, lectures of a more general nature will be given by specialists in their field. Chief of these will be a series on



Demonstrating School Hardware

practical psychology given by Robert H. Morrison, assistant director of extension service. His topics are:

1. Does appearance have any effect upon associates?
2. Does success depend upon habit?
3. Ten ways to make people hate you.
4. Can the factors causing failure be controlled?

## FACULTY

- Dr. C. B. Cornell, Professor of Educational Administration, Colorado State Teachers College, Director.
- James R. Ball, Assistant Superintendent in charge of Business Affairs, Denver Public Schools. Lectures and demonstrations in heating and ventilation.
- R. G. Dempsey, Superintendent of Buildings and Grounds, Colorado State Teachers College. Demonstrations in care of grounds.
- Charles M. Foulk, Professor of Industrial Arts, Colorado State Teachers College. Courses and demonstrations in maintenance and repairs.
- Dr. J. D. Heilman, Professor of Psychology, Colorado State Teachers College. Lectures on relation of care of buildings to teaching efficiency.
- John M. Kingston. Foreman of Steam Fitters, Denver Public Schools. Demonstrations in operation and care of steam plants.
- Robert H. Morrison, former Superintendent of Schools and now Director of the Extension Service, Colorado State Teachers College. Courses in Practical Psychology.
- Charles F. Stephens, Engineer and Head Janitor, Greeley High School.



They Brought Their Families With Them

How to Enroll: Write Dr. C. B. Cornell, care Colorado State Teachers College, Greeley, Colorado.



## GENERAL INFORMATION

Time—ONE WEEK.

Date—JUNE 10 to 15, 1929.

Begins—MONDAY MORNING, 8 A. M.

Closes—SATURDAY NOON.

Place—CAMPUS, COLORADO STATE TEACHERS COLLEGE, GREELEY, COLORADO.

Cost—TUITION FEE, \$10.00 per Janitor (Paid by three-fourths of boards last year).

BOARD ABOUT \$1.00 per day (All who prefer may eat at one central restaurant).

ROOM ABOUT 75 cents per day (Upon arrival men will be taken to their rooms).

City Park Tourist Camp—FREE TO MEMBERS OF THE JANITOR SCHOOL (A beautiful spot to bring the family for vacation. Cooking arrangements provided).

Entertainment—"PARK," "REX," and "STERLING," the three Greeley Theaters, furnish free admission to all members of the school.

PICNIC FOR ALL MEMBERS—Students and Instructors.

HORSESHOE TOURNAMENTS.

ANNUAL BANQUET.

The work—FROM 8:00 a. m. to 5 p. m., daily.

DEMONSTRATIONS OF: Firing, Control of Heat, Tempering Air, Humidifying Air, etc., Scrubbing, Mopping, Oiling Floors, Washing Windows, Cleaning Erasers and Blackboards, Cleaning Toilets, Building and Banking Fires, Reading Gauges, Making Records and Reports, Making Repairs and Doing Odd Jobs.

LECTURES GIVING STANDARDS AND METHODS FOR THE ABOVE. Importance of the Janitor's Work, Responsibilities of the Janitor, Lines of Authority—Board through Superintendent and Principal to Janitor, A Janitor's Duties, Precautions Against Fire, Precaution Against other Accidents, Sanitation, Disinfection, Relationships with Teaching Personnel, Relationships with Pupils, Care of Grounds, Material for Use in Cleaning and Preserving.

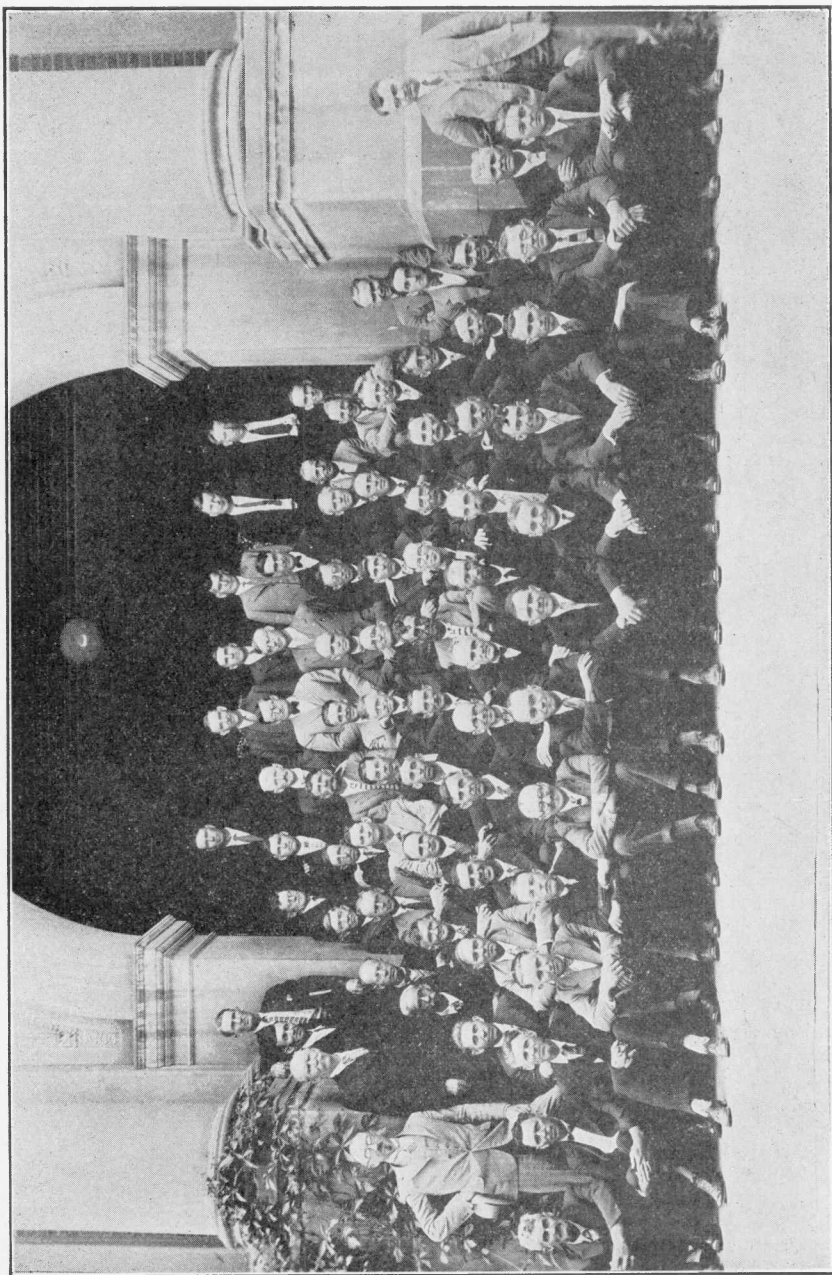
A FULL DAY will be spent in Denver for the purpose of visiting school-houses of different types to observe how janitors' duties should be performed under different conditions.

EXHIBITS—Leading commercial houses will have on exhibit a full line of janitorial materials and supplies. (These are only for examination by the janitors; there will be no selling by representatives of these firms.) Uses of various materials and supplies will be explained.

QUESTIONS AND ANSWERS—All members of the school are constantly urged to ask questions. (Discussion resulting from janitors' questions was one of the best features of last year's school.) Round table discussion every day.

MOVING PICTURES—These include pictures of methods of fire prevention, handling of furniture, temperature control, cleaning, etc.

Sympathetic Spirit—Janitors in attendance last year attest to the fact that these problems were approached in a sympathetic spirit.



Custodians of School Buildings in Attendance at the School of Custodians, Janitors, and Engineers at Colorado State Teachers College. Man standing in Foreground on Extreme Left is Dr. C. B. Cornell, Director of the School. Man Standing on Extreme Right is Dr. C. E. Reeves, Author of "Janitor Service in Elementary Schools."

COLORADO STATE TEACHERS COLLEGE

BULLETIN

Teachers College High School



JUNIOR HIGH SCHOOL

SENIOR HIGH SCHOOL

GREELEY

1929-1930

Published Monthly by Colorado State Teachers College, Greeley,  
Colo. Entered as Second-Class Matter at the Postoffice at  
Greeley, Colo., under the Act of August 24, 1912

SERIES XXIX

JUNE

NUMBER 3

## 1929—The High School Calendar—1930

### Fall Quarter

1929

October 1	Tuesday .....	Registration
October 2	Wednesday .....	Classes Begin
November 11	Monday .....	Armistice Day (Holiday)
November 28	Thursday }	Thanksgiving, (Holiday)
November 29	Friday }	
December 19	Thursday }	Final Examinations
December 20	Friday }	
December 21	Saturday .....	Christmas Vacation Begins

### Winter Quarter

1930

December 30	Monday .....	Classes Begin
January 1	Wednesday .....	New Year's Day (Holiday)
February 22	Saturday .....	Washington's Birthday (Holiday)
March 13	Thursday }	Final Examinations
March 14	Friday }	
March 15	Saturday .....	Spring Vacation Begins

### Spring Quarter

1930

March 24	Monday .....	Classes Begin
May 2	Friday .....	Hays Picnic
May 30	Friday .....	Memorial Day (Holiday)
June 5	Thursday }	Final Examinations
June 6	Friday }	
June 6	Friday .....	Commencement
June 7	Saturday .....	Summer Vacation Begins

### Summer Quarter

1930

June 16	Monday .....	Registration
June 17	Tuesday .....	Classes Begin
July 4	Friday .....	Independence Day (Holiday)
August 22	Friday ..	Final Examinations
August 23	Saturday .....	Fall Vacation Begins

### Fall Quarter

1930

September 29	Monday .....	Registration
September 30	Tuesday .....	Classes Begin

## Administrative Officers

---

GEORGE WILLARD FRASIER, PH.D., LL.D.	<i>President</i>
WINFIELD DOCKERY ARMENTROUT, ED.D.	<i>Director of Training Schools</i>
WILLIAM LAWRENCE WRINKLE, A.B., A.M.	<i>Principal</i>
PAULINE M. POGUE, A.B., A.M.	<i>Director of Girls' Activities</i>
J. S. DOUBENMIER, A.B.	<i>Director of Boys' Activities</i>

---

## The Faculty

RALPH THOMAS BISHOP, A.B., A.M.	<i>Printing</i>
FLORENCE BLACKBURN, A.B., A.M.	<i>Dramatic Art</i>
ELIZABETH CARNEY, A.B., A.M.	<i>English</i>
J. S. DOUBENMIER, A.B.	<i>Physical Education</i>
GENEVIEVE DAVIS, A.B., A.M.	<i>Foreign Languages</i>
ELLA FRANCES HACKMAN, B.S.	<i>Social Science</i>
LUELLA HAWTHORNE, A.B.	<i>Music</i>
FRED LOUIS HERMAN, B.S., A.M.	<i>Science</i>
ALICE JOHNSON, PH.B.	<i>English</i>
ELIZABETH HAYS KENDEL, A.B.	<i>Mathematics</i>
WINFIELD LEROY KNIES, A.B., A.M.	<i>Commerce</i>
ARTHUR ERNEST MALLORY, A.B., A.M.	<i>Mathematics</i>
ESTELL E. MOHR, B.S.	<i>Music</i>
GEORGIA MOORE, B.S.	<i>Art</i>
VERA NEWBURN, B.S., M.S.	<i>Home Economics</i>
LESTER EDWIN OPP, MUS.B.	<i>Orchestra and Band</i>
KENNETH FREDERICK PERRY, A.B., A.M.	<i>Industrial Arts</i>
PAULINE M. POGUE, A.B., A.M.	<i>History</i>
*ROBERT CECIL POOLEY, A.B., A.M.	<i>English</i>
OTTO WILLIAM SCHAEFER	<i>Bookbinding</i>
EDITH MARIE SELBERG, A.B., A.M.	<i>Science</i>
JOHN HENRY SHAW (Editor Official Publications)	<i>Journalism</i>
	<i>Physical Education</i>

\*On leave

---

IDA M. JONES	<i>Secretary</i>
DAISY D. FURROW, R.N.	<i>Nurse and Health Director</i>

## **General Information**

Teachers College High School, the secondary school of Colorado State Teachers College, includes both the junior and senior high schools, grades seven to twelve. It is founded on the theory that the highest educational interests of junior and senior high school students and the highest professional interests of prospective junior and senior high school teachers are fundamentally identical. Teachers College High School is fully accredited by the North Central Association of Colleges and Secondary Schools.

## **Limited Enrollment**

The enrollment of students is limited to three hundred, or fifty students to each of the six grades of the high school. Limitation of enrollment reacts favorably to the educational progress of the school in many respects. Students who wish to enter Teachers College High School should study carefully the requirements for admission.

## **Requirements for Admission**

Pupils are admitted on the basis of fitness of character, mental ability, and educational achievement. The applicant for admission is investigated carefully. If found to be satisfactory, he is admitted providing there is room in the group which he is prepared to enter. Other things being equal, applications will be considered in the order of their receipt. Because the fall quarter opens nearly a month later than the public schools, a student should not wait until date of registration with any assurance that he will be admitted, unless he has filed an application and has been notified that it has been accepted.

## **Tuition and Fees**

The tuition rate for the Junior High School, grades 7 to 9, inclusive, is four dollars per quarter. The tuition rate for the Senior High School, grades 10 to 12, inclusive, is twelve dollars per quarter. The regular college swimming fee, one dollar per quarter, is paid by all students of the high school electing swimming. Tuition and fees are collected the first week of each quarter. The Associated Students' activity fee which provides for social activities and partially supports publications, athletics, etc., is one dollar and fifty cents per quarter. This fee is required of all Senior High School Students, and is collected at the time of registration.

## **Textbooks**

Textbooks are furnished to students in the Junior High School. Fees are charged in Woodworking, Leathercraft, etc., to cover actual cost of material used in making articles which then becomes the property of the student. Senior High School students furnish their own books, which may be purchased at cost at the College Book Room.

## **Scholarships**

Teachers College High School, in recognition of outstanding abilities in students of its own enrollment, grants annually the following scholarships: Music, Art, Literature, Science, Foreign Languages, Home Economics, Commerce, Printing, Woodworking, Leathercraft, Physical Education (Junior and Senior), and School Leadership (Junior and Senior).

## **Student Co-operative Government**

Every student of the Senior High School is a member of the Associated Students of Teachers College High School. The object of the association is to co-operate with the administration and faculty in the regulation and promotion of the phases of high school life which may be administered by the

students. The standards which have been set up by the Associated Students includes the following:

1. Students living in houses approved by the College for college students must observe all college regulations. Students living in houses not approved by the College must have their living arrangements approved by the Director of Girls' Activities or the Principal. Students not living in college-approved houses must observe regular house rules as applied to College-approved houses.
2. A class or an organization giving a social function shall decide whether or not non student guests may be invited.  
All guests not students at Teachers College High School must be approved by the Director of Girls' Activities and the Principal.
3. Non-College dances approved by the College shall be automatically approved by Teachers College High School. Attendance at dances not provided for above shall be approved by the High School—
  - (1) Only if the student is accompanied by parent or Greeley hostess.
  - (2) If proposed attendance has been reported to the Director of Girls' Activities and approved in advance.
4. General college student standards regulating the conduct of college students must also be observed by the students of Teachers College High School.
5. Students of Teachers College High School shall do nothing to bring discredit either to themselves or the school.
6. It shall be the duty of each member of the School to see that these standards are observed and to report violations of these standards to the Student Council.
7. Violations of these standards shall be investigated by the Student Council and any necessary disciplinary measure may be imposed.

### **The Summer Session**

The school is open for regular school work during the summer quarter. It is the same as any other quarter of the school year, the same credits may be earned, and the program, while less elaborate and more intensive, is rich and diversified and offers many unusual opportunities.

The summer school is maintained to serve two purposes: to enable students to make up incomplete credits, to review subjects in which they experienced difficulties and to do advanced work without credit; and, to enable students to earn advance credit toward graduation at an earlier date. Often a student, because of unavoidable circumstances, fails or is incomplete in one or more units of his work. Ordinarily this would require an additional year of high school attendance. By doing intensive work such a student might complete one full unit of credit in any one of a number of subjects or might clear up two or more incompleting semester courses. Four hours is the regular high school student's daily class load.

The junior high school program is entirely in the nature of make-up review work. In the senior high school are both the review or make-up and the advanced credit features. To illustrate: Sociology, economics, and government, the three units of Social Science 12, may be completed in the one quarter by attending the three classes one hour a day each instead of one hour daily for three consecutive quarters, as is the case in the regular school year.

## Attendance

The average attendance throughout the school year is approximately 95%. This high percentage is possible due to the careful health service and guidance provided by the school, and the attendance regulations enforced.

1. All absences and first-period forenoon and afternoon tardinesses are excusable only by presentation of acceptable excuse from student's parent or hostess. The excuse must be specific with respect to the cause of absence or tardiness.
2. Absences due to causes other than sickness, except in unavoidable circumstances unforeseen by the student, are not excusable unless permission to be absent has been granted prior to the period of absence.
3. Permission to be absent from classes may be secured in special cases from the High School Office. To secure this permission the student should bring to the High School Office from the teacher of each class effected a statement that the student's achievement and attitude are satisfactory and that he can afford to be absent the period or periods requested.
4. The High School Office is to be notified of absences due to sickness as early in the period of absence as possible. The health service of the High School is available to students in need of it if the office is notified. To protect the health of other students as well as the student directly affected it is essential that sickness be reported immediately.
5. After absence due to sickness the student is required to report to the School Nurse to be reexamined for readmission before coming to the office for class readmission slips.
6. Absence in all cases (except when announced otherwise) is reported to the office and if the student is absent by special permission of the High School Office, following such absence student admission to class must be by presentation of the readmission slip from the office.
7. Failure to comply with these regulations will result in a grade penalty for each violation. Two percent for each period of absence and one percent for each period of tardiness in the subject affected.

**Housing and Equipment**—The Secondary School has exclusive use of the entire third floor of the Training School Building and a greater share of the first floor. In addition to the splendid housing facilities thus provided, high school classes utilize many other buildings on the college campus:

Industrial Education and Art in Guggenheim Hall  
Physical Education in Gunter Hall of Health  
Home Economics in Home Economics Building  
Commercial Arts in the Administration Building  
Social affairs in the Club House

By this plan the students of the High School have available for their use equipment which is far superior to that of the most progressive and advanced secondary schools.

Libraries including 70,000 volumes are available for the use of high school students.

**Faculty**—A splendidly prepared and thoroughly progressive faculty of teachers, up to date in educational theory and practice, under the supervision of a corps of educational experts in the field of secondary education, makes possible the successful application of new methods and practices essential to the greatest progress of the student.



**Course of Study**—The course of study offers evidence of an elaborateness and thoroughness possible only in the most progressive schools. Leathercraft, Printing, Children's Theater, Advanced Commercial Work, etc., demand specialized equipment and instruction which few schools can afford. A large faculty makes possible a course of study which might be found in only the larger cities. The requirements for the various years are in keeping with the recent tendencies in secondary education.

**Physical Education**—The physical education and health program is built on a policy of "physical education for all" rather than emphasizing the building up of a strong team to participate in interscholastic athletic competition. Swimming, boxing, wrestling, basketball, baseball, speed ball, track, gymnastics, folk dancing, esthetic dancing, etc., suggest a few of the many activities involved in the physical education program. Teachers College High School is a member of the Platte Valley Athletic Conference.

**Size of Classes**—Greatest progress and sufficient individual attention are impossible where classes are large. The large faculty and the limited enrollment of the high school makes possible smaller classes, the average of which does not exceed twenty members.

**College and University Preparation**—Constant contact with learning on the college level prepares the student to enter institutions of higher education upon graduation without going through the usual breaking-in-period while he is adapting himself to the change. Over three-fourths of the Teachers College High School graduates continue their school life following graduation in colleges or universities. Association with students of this type has a decided positive influence.

**Selected Student Body**—Students are admitted by a highly selective process based upon ability, seriousness of purpose, and educational qualifications. The student who is interested in his educational advancement finds himself in a highly selected group thereby facilitating his educational progress.

## Selecting the Program

A very important problem confronting every High School student which is often not given sufficient attention is the problem of selecting the course of study which the student is to follow in his high school work. A brief examination of the Teachers High School course of Study—pages 10, 11, 12—reveals the importance of this problem to every student.

At the opening of the Fall Quarter the student registers for a program of courses tentatively. During the first week tests are administered and the purpose and ability of the student considered. If it is found advisable for a student to withdraw from a course the transfer is recommended. At the close of the opening week permanent registration takes place for the year. It is very essential that everyone be present from the first day to take advantage of this guidance opportunity.

In the seventh and eighth grades the program of classes is largely prescribed, however, allowing the student the privilege of electing one or two courses. It is advisable for the student to vary the elected courses to enable a broader acquaintance with the different fields offered in the senior high school. To enable this the student is permitted to elect introductory or beginning courses in art, home economics, industrial arts, dramatic arts, etc. In grade nine the policy of election of courses is broadened to give the student a choice of two subjects from a definite group of five subjects and a free choice of one subject from a larger group. Before registering for the ninth year the student should study the following suggested programs carefully.

Twelve units of credit are required for graduation from the Senior department of Teachers College High School. A unit is the credit granted for satisfactory achievement in a subject having regular daily meetings for a period of three quarters or three daily meetings for a period of one quarter as in the case of the unit work offered in the summer session. In practically all subjects, the class period is fifty minutes in length; in Industrial Arts the class period is ninety minutes; and, in Chemistry and Physics, two fifty minute extra laboratory periods are required in addition to the regular daily meetings.

In addition to the twelve units required in the three senior high school grades, each student is encouraged to take at least two periods of physical education weekly, which may be in swimming, athletics, or general physical education activities. Each student is required to engage in one extra class activity, such as orchestra, glee club, chorus, journalism, debate, physical education, etc. At Teachers College High School, the first class begins at eight and all classes are completed by five.

Of the twelve required units, three are specifically prescribed—two units of English, and one unit of American History and Government. Five of the remaining units are elective within a limited number of courses. Four units are purely elective from a large group of courses offered. Three-fourths of the work in senior high school is elective, thereby granting students freedom to follow out their particular interests and abilities, and placing on students responsibility for the wise selection of a course.

The English courses of the High School are planned to provide the most suitable work for each student. The organization of the English courses is entirely different from the traditional organization. All Sophomores must register for English 10 at the beginning of their senior high school work. During the first week diagnostic tests are given to determine language abilities and deficiencies. On the basis of these tests students who achieve a certain standard will be released from the General English requirements and transferred to World Literature; those students who fail to meet the required standard will continue in General English, which is a course in grammar and composition. At the end of the Sophomore year, tests will be given again, and students who have not reached a certain standard will spend their second year of English in further study of grammar and composition while those students who reach the standard will then be allowed to register for World Literature. In the Junior year students who have taken World Literature in their second year, are permitted to register for Creative Expression or English Classics. Students who are required to spend two years in General English will be required to take a third year of English, World Literature.

How should the student be guided in the selection of his program of studies? It is essential that the student first determine his purpose in going to high school. He should decide whether his high school education is preparatory to further education in College or University, or whether he is to go directly into a vocation following graduation. Approximately eighty per cent of Teachers College High School graduates, in recent years, have gone on to Colleges or Universities following graduation.

Colleges and universities vary in their entrance requirements. This complicates the problem for the student, unless he knows definitely which institution he is planning to enter. The course of study at Teachers College High School is so arranged to insure entrance to Colorado State Teachers College regardless of the course elected by the student. It also insures entrance to the greater number of institutions of higher education. However, no course except a very rigid one would insure unconditional entrance to an unlimited number of universities and colleges. As it is often impossible for a student at the beginning of his senior high school work to plan definitely regarding the school which he wishes to enter after graduation, if the student is sure he is going on to some educational institution after graduation, it would be very advisable for him to follow the program on the following page.

**General College Preparatory Course:** It would be advisable for the student planning to follow this general course to elect General Science and a Language in the ninth grade. In the Senior High School, the Language should be continued through to four years of one language, or at least two years in two languages. In the tenth grade the student should elect Advanced Science and European History. In the eleventh and twelfth years Chemistry, Physics, Plane Geometry, and Advanced Mathematics should be elected. These units are all solid basic units which would be accepted by any institution.

Students who are interested in the field of **Commerce and Business**, and who plan to either go on to further preparation in this field after graduation, or to go directly into commercial work, may well follow the program below. In the ninth year, Social Science and Business Training and one of the following should be elected: General Science, Spanish or French according to the student's interest. Typewriting and Bookkeeping should be elected in the tenth year followed by Typing II in the eleventh year, and Short-hand in the twelfth year, with Business Law, Arithmetic, and English and Social Economic History or Advanced Social Science in the eleventh or twelfth years.

Students who are interested chiefly in **Home Economics**, who plan to go on to school after graduation, or who do not plan on further education following graduation, should select their program according to the following outline. In the ninth grade, Social Science, General Science and Introductory Home Economics should be elected. Advanced Science and Household Arts or Household Science, and a unit of art or music should be elected in the tenth grade. In the remaining two years, the student should complete two additional units of Home Economics, one unit of Chemistry, and a unit of Social Economic History or Advanced Social Science.

Students whose interest is chiefly in the **Vocational or Manual Arts** field should decide if their interests are primarily in Woodworking and Drawing or in Printing. In either case in the ninth grade the student should elect Social Science 9, General Science and Introductory Industrial Arts; in the tenth grade, Advanced Science and Plane Geometry; and, in the eleventh and twelfth grades, Physics or Advanced Mathematics. If the student's interest is chiefly in Woodworking and Drawing he should elect Drawing in the tenth grade, with Printing and Drawing in the eleventh, and Book-binding in the Twelfth.

It should be understood that these suggested programs are offered as suggestions only and not as definite programs to followed strictly. The courses included in the different subject fields have been suggested because they have direct bearing and value in rounding out a general education in each field. This advice should be considered carefully, and supplemented by course of the students sponsor of which there is one for each grade in the high school.

## The Junior High School Course of Study

**Required:**

GRADE 7	GRADE 8	GRADE 9
1. English	1. English	1. English
2. Mathematics	2. Mathematics	2. Mathematics
3. Geography	3. General Science	3. Music (2) and Physical Educ. (3)
4. History	4. History	
5. Music (2) and Physical Educ. (3)	5. Music (2) and Physical Educ. (3)	

**Required Elective:**

0. None	0. None	4-5. Elect 2 French I General Science 9 Latin I Social Science 9 Spanish I
---------	---------	---

**Free Elective:**

6. Elect 1	6. Elect 1	6. Elect 1
------------	------------	------------

Introductory Art II  
Introductory Business Training I  
Introductory Dramatic Art II  
Introductory Home Economics II  
Introductory Industrial Arts II  
Beginning Orchestral Instruments  
Advanced Orchestra (4)

**SENIOR ELECTIVES**

(See General Requirement 6.)

Art I  
Dramatic Art I  
Household Arts (1929-30)  
Household Science (1930-31)  
Woodworking

**Optional Elective:**

Swimming (2)  
Advanced Orchestra (4)  
Beginning Orchestral Instruments (5)  
Athletics

### General Requirements

1. The regular load of Junior High School Students is six hours daily. In addition to this the student may elect from the optional electives an additional two or six hours weekly or may be assigned, if deficient in certain abilities, to remedial courses, such as, Remedial Reading, Remedial Penmanship, etc.
2. All classes meet daily unless indicated otherwise. The figures (2), (3), (4) indicate the number of weekly meetings of the class.
3. All courses are elected for a period of three quarters. No change of electives is allowed at the close of the Fall or Winter Quarters.
4. Students who are interested in instrumental music and wish to substitute either beginning or advanced orchestral instruments may be excused from the general music requirement by demonstrating satisfactory ability in the music sight-reading examination conducted by application by the Director of Music, unless the orchestra class is taken as the free elective course of the student.
5. Students electing swimming or athletics, with the approval of the Director of Physical Education, may offer it as substitute for the physical education requirement with the provision that the regular physical education periods be spent in the library.

6. Students in grade 9 may elect a senior high school elective course providing they have had at least one year of the subject in grade 7 or 8, i. e., at least one year of Introductory Industrial Arts must be offered to be eligible to Woodworking I in grade 9, etc.

## The Senior High School

### Course of Study

**Required:**

GRADE 10	GRADE 11	GRADE 12
1. English General English World Literature 2. Activity Class Debate Journalism Chorus Glee Club Physical Ed. Athletics Orchestra	1. English General English World Literature English Classics Creative Expression 2. American History 3. Activity Class (2) Debate Journalism Chorus Glee Club Physical Ed. Athletics Orchestra	1. Activity Class (2) Debate Journalism Chorus Glee Club Physical Ed. Athletics Orchestra

**Required Elective:**

3-4. Elect 2 European History French Latin Spanish Plane Geometry *Music Composition Music History and Harmony Advanced Science	4. Elect 1 English Classics *Creative Expression *Advanced Social Science European History Social Economic History French Latin Spanish Advanced Mathe- matics Plane Geometry *Music Composition Music History and Harmony Advanced Science Chemistry *Physics	2-3. Elect 2 English Classics *Creative Expression World Literature *Advanced Social Science Social Economic History French Latin Spanish Advanced Mathe- matics *Music Composition Music History and Harmony Chemistry *Physics
--	---	---

**Free Elective:**

5. Elect 1 Art II Bookkeeping I Typewriting II Dramatic Art II European History I World Literature I *Household Science I Household Art I Mechanical Draw- ing II Leathercraft II Printing IV	5. Elect 1 Art II Commercial Arts I Bookkeeping I Typewriting II Dramatic Art II *Creative Expres- sion I World Literature I Public Speaking I Household Art I *Household Science I European History I	4-5. Elect 2 Art II Bookkeeping I Commercial Arts I Shorthand I Typewriting II *Creative Expres- sion I Dramatic Art II World Literature I *Adv. Social Science I *Household Science I
---	--	--

Woodworking IV	*Adv. Social	Household Art I
French IV	Science I	Architectural
Latin IV	Architectural	Drawing I
Spanish IV	Drawing I	Mechanical
Plane Geometry I	Mechanical Draw-	Drawing II
Applied Music II	ing II	Leathercraft II
*Music Composition I	Leathercraft II	Printing IV
Music History and	Printing IV	Woodworking IV
Harmony I	Woodworking IV	French IV
Advanced Science I	French 4	Latin IV
	Latin IV	Spanish IV
	Spanish IV	Adv. Mathematics I
	Plane Geometry I	Applied Music II
	Adv. Mathematics I	*Music Composition I
	Applied Music II	Music History and
	*Music Composition I	Harmony I
	Music History and	*Chemistry I
	Harmony I	Physics I
	Advanced Science I	Approved College
	*Chemistry I	Elective
	Physics I	
	Approved College	
	Elective	

#### Optional Electives:

Athletics (5)  
 Chorus (2)  
 Debate (2)  
 Glee Club (2)  
 Journalism (2)  
 Orchestra  
 Advanced (4)  
 Beginning (5)  
 Physical Education (2)  
 Swimming (2)

\*before the title of course indicates that it alternates with another course and will be offered in 1930-1931 but not in 1929-1930.

The numerals I, II, III, IV after the title of course indicate the number of units of credit which may be applied in that course toward graduation, including units earned in grade nine. Art II means that two units of art; Printing IV, four units of Printing; Leathercraft II, two units of Leathercraft, etc., may be elected by students in those fields.

### General Requirements

1. Admission to the Senior High School, in addition to physical, educational, and mental qualifications, included the offering of the following units of credit from Grade 9: Algebra, English, and two units from the following group: Social Science, Latin, French, Spanish or General Science.
2. Two years of English is required. See page 8, "Selecting the Program" regarding the English courses.
3. If General Science is not offered from the ninth grade, Advanced Science 10 is required.
4. If Social Science is not offered from the ninth grade, Advanced Social Science or Social Economic History is required.
5. All students are required to engage in some extra class activity for a minimum of two periods each week. The courses which meet the requirement are listed in the course of study as the Activity Class.
6. Students who are interested in orchestra, chorus, glee club, athletics, debate, journalism, etc., may elect these subjects from the group of optional electives. Although credit in these courses does not apply toward graduation it is listed on the student's record and would be recognized as credit work by many schools.
7. Only one single unit of Latin, French or Spanish may be presented to apply toward graduation credit. Languages should be taken at least two years.

8. Courses should be selected with respect to grade placement as indicated in the program. A course should not be elected unless it appears in the list of electives for the grade of the student.
9. Superior students as indicated by mental tests and scholarship record may elect a fifth subject. Four hours of regular classes daily shall be the regular senior high school student load.
10. Superior students who have completed the offering in the high school program in certain fields may elect for high school credit college course in that field.
11. Applied Music includes private music lessons by instructors in the Conservatory of Music on standard orchestral instruments. One-half unit credit is granted for one hour daily practice, a one hour lesson weekly, and satisfactory achievement and progress.

## The Junior High School

### Program of Classes

#### 8:00—

	Grades	Supervisor	Room
Introductory Dramatic Art I .....	7—9	Blackburn	209
Introductory Dramatic Art II .....	8—9	Blackburn	210
Beginning Orchestral Instruments .....	7—9	Opp	Audit.
Swimming .....	7—9	Doubenmier	Pool
Boys—Monday and Wednesday			Gunter Hall
Girls—Tuesday and Thursday			
Selected—Friday			

#### 9:00—

Music (2—Monday, Wednesday) .....	7—8	Hawthorne	2
Music (2—Tuesday, Thursday) .....	9	Hawthorne	2
Physical Education (3—Tue., Thurs., Fri.) .....	7—8	Doubenmier	Gym 9-11
Physical Education (3—Mon., Wed., Fri.) .....	9	Doubenmier	Gym 9-11

#### 10:00—

English .....	7	Johnson	217-218
Mathematics .....	8	Kendel	219-220
Social Science .....	9	Hackman	221-222
Spanish I .....	9	Davis	216

#### 11:00—

Mathematics .....	7	Kendel	219-220
History .....	8	Hackman	221-222
English .....	9	Johnson	217-218

#### 1:00—

Introductory Art I .....	7—9	Moore	G-200
Introductory Art II .....	8—9	Moore	G-200
Introductory Business Training .....	8—9	Knies	222
Introductory Home Economics I .....	7—9	Newburn	HE-305
Introductory Home Economics II .....	8—9	Newburn	HE-305
Introductory Industrial Arts I .....	7—9	Perry	14-15
Introductory Industrial Arts II .....	8—9	Perry	14-15
Athletics .....	9	Doubenmier	Gym
French I .....	9	Davis	216
Latin I .....	9	Davis	217
Printing I .....	9	Bishop	HE-102
General Science .....	9	Selberg	5-6
Swimming .....	7—9	Doubenmier	Gunter Hall
Boys—Monday and Wednesday			Pool
Girls—Tuesday and Thursday			
Selected—Friday			

**2:00—**

History .....	7	Hackman	221-222
General Science .....	8	Selberg	5-6
Mathematics .....	9	Kendel	219-220

**3:00—**

Geography .....	7	Hackman	221-222
English .....	8	Johnson	217-218
Art I .....	9	Moore	G-200
Dramatic Art I .....	9	Blackburn	209-210
Household Arts .....	9	Newburn	HE-305
Woodworking .....	9	Perry	G-105

**4:00—**

Advanced Orchestra .....	7—9	Opp	Audit.
Athletics .....	7—9	Doubenmier	Gym.

## The Senior High School

### Program of Classes

**8:00—**

	Grades	Supervisor	Room
Advanced Mathematics .....	11—12	Mallory	211
Fall—Advanced Algebra			
Winter—Advanced Algebra			
Spring—Solid Geometry			
Music History and Harmony .....	10—12	Hawthorne	2
Orchestral Instruments .....	10—12	Opp	Audit.
Chemistry Laboratory (Mon.-Wed.) .....	11—12	Herman	5-6
Swimming .....	10—12	Doubenmier	Gunter Hall
Boys—Monday and Wednesday			Pool
Girls—Tuesday and Thursday			
Selected—Friday			

**9:00—**

Commercial Arts .....	11—12	Knies	204
Fall—Business Law			
Winter—Business English			
Spring—Business Arithmetic			
Shorthand I .....	12	Knies	205
European History .....	10—11	Pogue	206-207
Architectural Drawing .....	10—12	Perry	G-105
Mechanical Drawing .....	10—12	Perry	G-105
Latin II .....	10—12	Davis	216
Spanish II .....	10—12	Davis	218
Chemistry .....	11—12	Herman	5-6

**10:00—**

General English .....	11	Carney	210
World Literature .....	11	Carney	209
Plane Geometry .....	10—12	Mallory	204-205
Spanish I .....	10—12	Davis	216
Advanced Science .....	10—12	Herman	5-6
Social Economic History .....	11—12	Pogue	206-207
Fall—Human Geography			
Winter—Commercial Geography			
Spring—Economic History			



11:00—

Assembly (Friday)			Audit.
Class and Association Meetings (Tuesday)			T. S.
Associated Students	} Meetings (Thursday)		
Sponsor's			
Special Club			
Debate (2) Mon. and Wed.	10—12	Carney	209
Journalism (2) Mon. and Wed.	10—12	Shaw	207
Chorus (2) Mon. and Wed.	10—12	Hawthorne	2
Glee Club (2) Mon. and Wed.	10—12	Hawthorne	210
Physical Ed. (2) Mon. and Wed.	10—12	Doubenmier	Gym 9-11
Chemistry Lab. (2) Mon. and Wed.	Special	Herman	5-6

1:00—

Typewriting I		Knies	Ad-213
English Classics		Carney	210
Athletics		Doubenmier	
Fall—Speedball, etc.			Field
Winter—Basketball, etc.			Gunter Hall
Spring—Baseball, Track, etc.			Gym
French I		Davis	216
French II		Davis	217
Latin I		Davis	218
Swimming		Doubenmier	Gunter Hall
Boys—Monday and Wednesday			Pool
Girls—Tuesday and Thursday			
Selected—Friday			

2:00—

General English	10	Johnson	210
World Literature	10	Carney	211
Public Speaking	10—12	Carney	209
American History	11—12	Pogue	206-207
Fall—Political Development			
Winter—Political Development and Government			
Spring—History of Foreign Relations			

3:00—

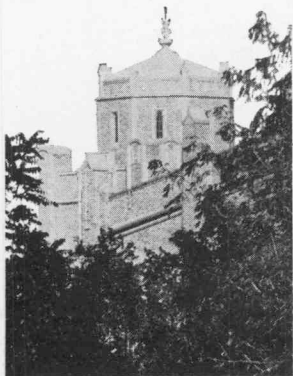
Art I	10—12	Moore	G-200
Art II	10—12	Moore	G-200
Bookkeeping I	10—12	Knies	
Typewriting II and Secretarial Practice	11—12	Knies	Ad-213
Dramatic Art I	10—12	Blackburn	209
Dramatic Art II	10—12	Blackburn	210
Household Arts	10—12	Newburn	HE-305
Leathercraft II (to 4:30)	10—12	Shaefer	G-200
Printing I to IV (to 4:30)	10—12	Bishop	HE-100
Woodworking I to IV (to 4:30)	10—12	Perry	G-105

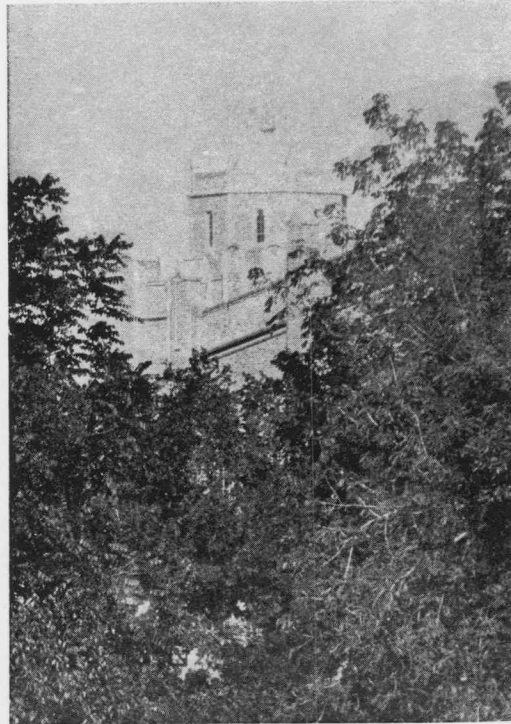
4:00—

Advanced Orchestra	10—12	Opp	Audit.
--------------------	-------	-----	--------

By Special Permission:

Applied Music	10—12		Conserv'ty of Music
---------------	-------	--	------------------------





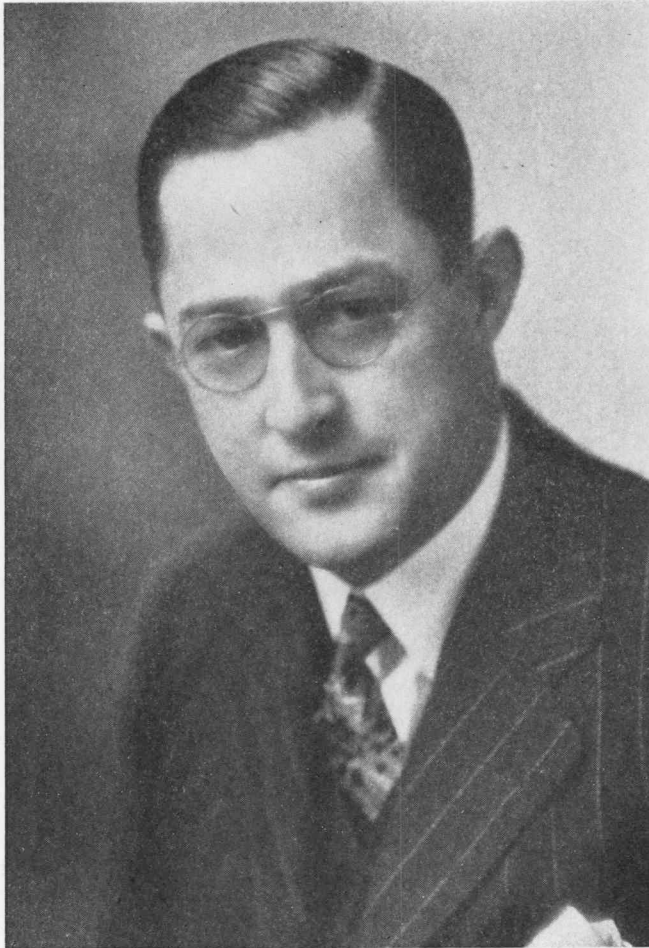
# Opportunities for High School Graduates

Colorado State Teachers College

BULLETIN

Prepared by Phi Delta Kappa, Professional Fraternity for Men  
in cooperation with the  
Department of Publications

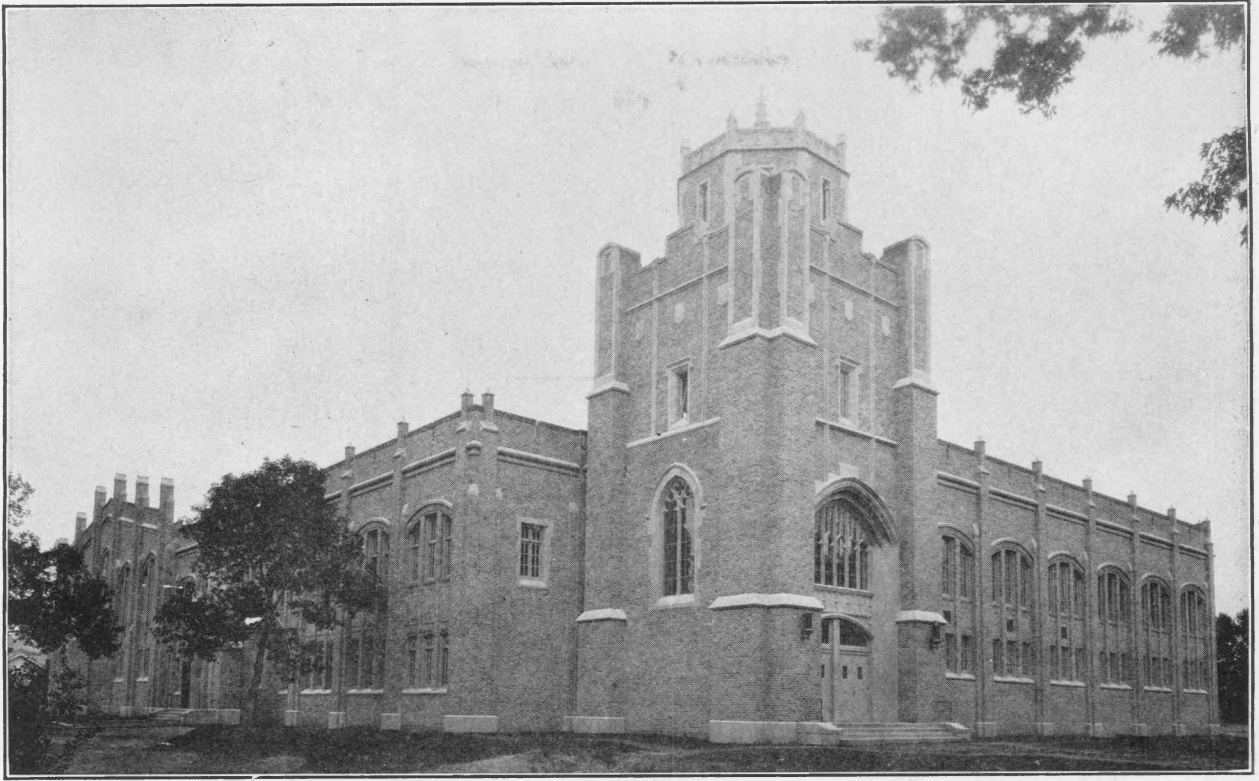
Published Monthly by Colorado State Teachers College, Greeley, Colorado  
Entered as second class matter at the Postoffice at Greeley, Colorado, under the Act of  
August 24, 1912



GEORGE WILLARD FRASIER, Ph. D., LL. D., President

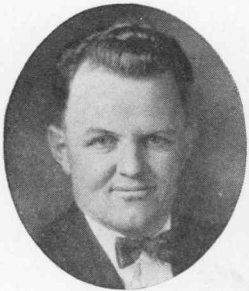


MAIN ENTRANCE ADMINISTRATION BUILDING



GUNTER HALL OF HEALTH

Exterior view of the handsome gymnasium and the faculty of the Athletic Department



G. E. COOPER  
Director



W. E. SAUNDERS  
Football Coach



DR. VON DEN STEINEN  
Track Coach and  
Medical Adviser



PETE BROWN  
Baseball Coach



J. S. DOUBENMIER  
Assistant Coach

THE MEN WHO TRAIN THE STUDENTS IN ATHLETICS AND PHYSICAL EDUCATION



TEACHERS COLLEGE CHAMPION BASKETBALL TEAM  
Rocky Mountain Conference

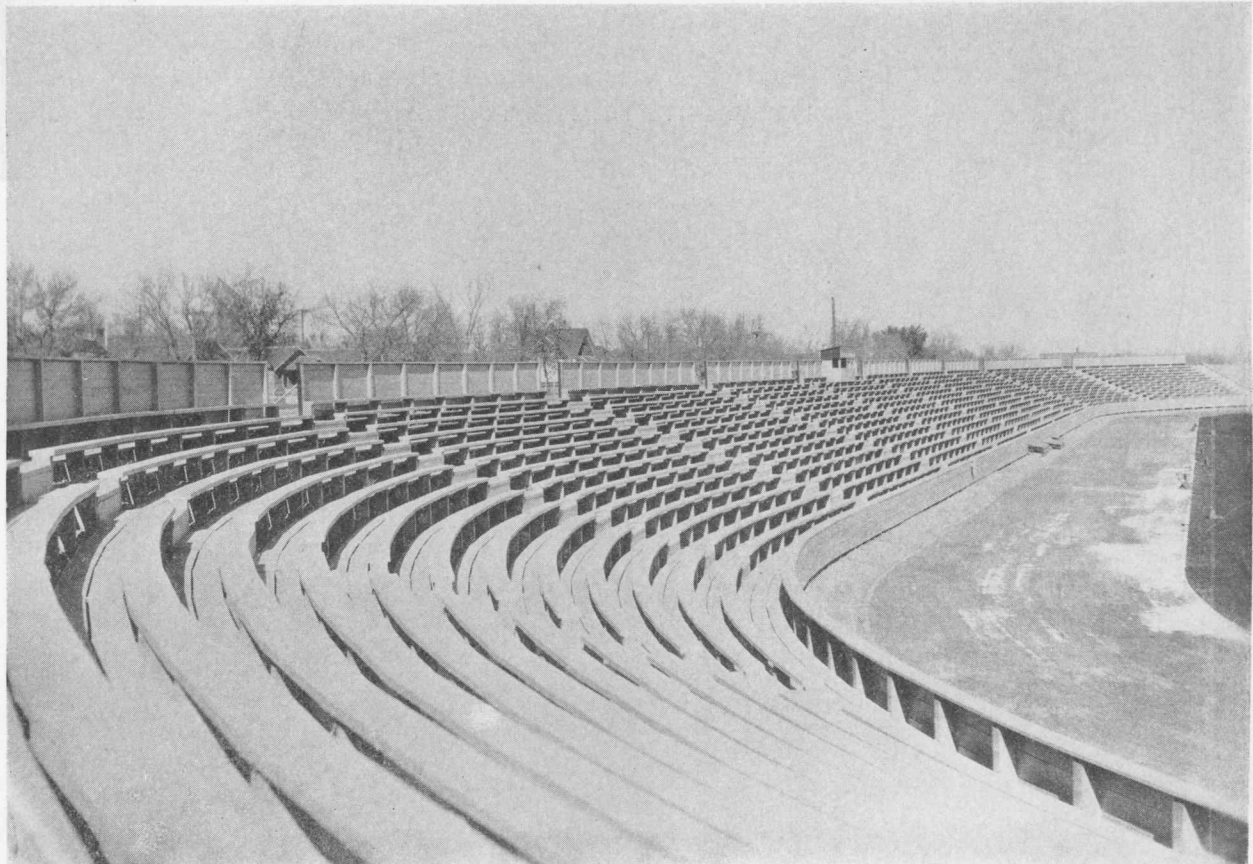


A QUINTET OF GRADUATES WHO ARE HOLDING GOOD JOBS

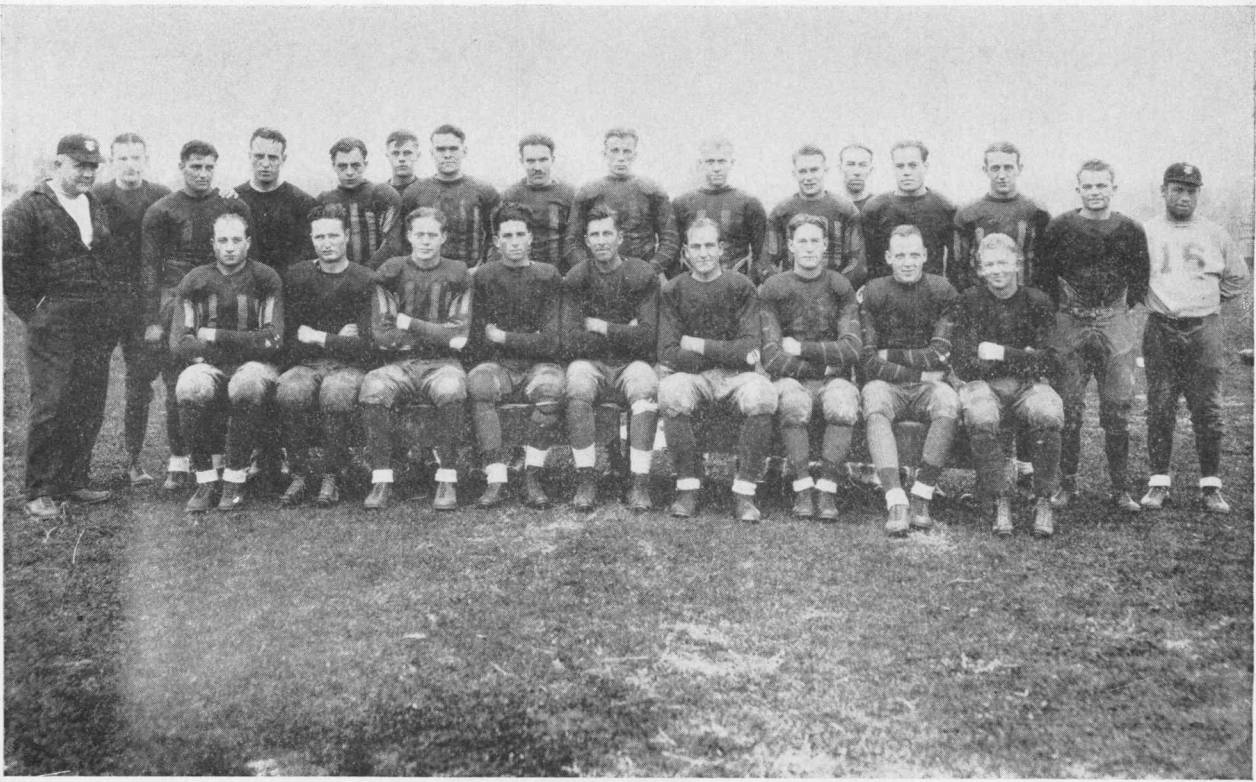




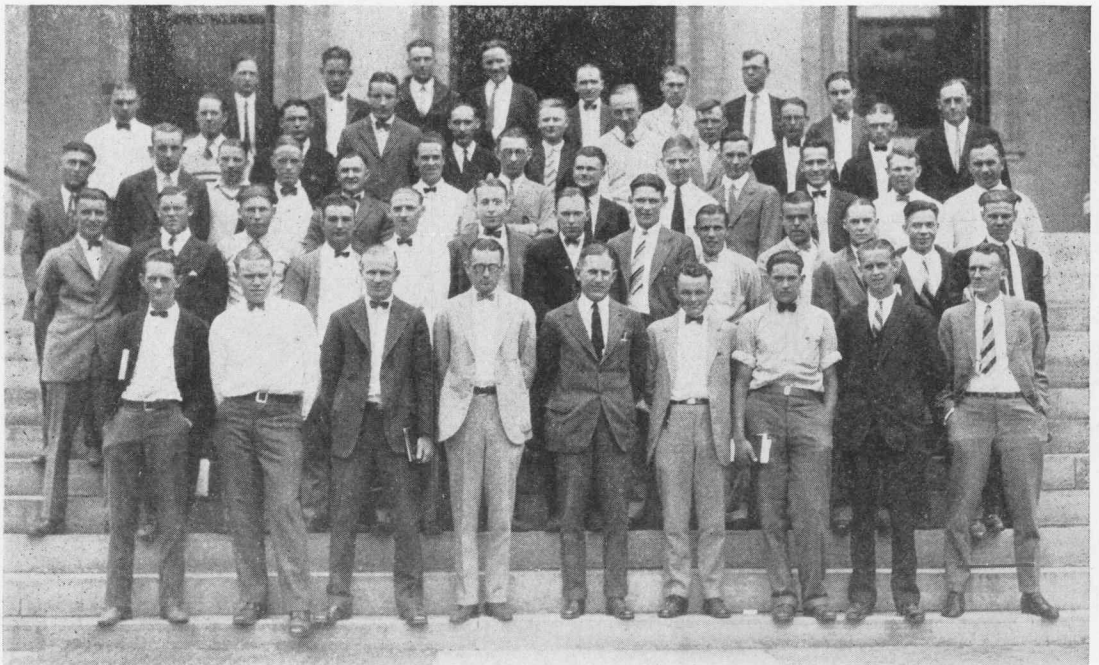
TROPHIES HAVE BEEN WON IN BASKETBALL, BASEBALL, SWIMMING, TRACK AND OTHER COLLEGE ATHLETIC EVENTS



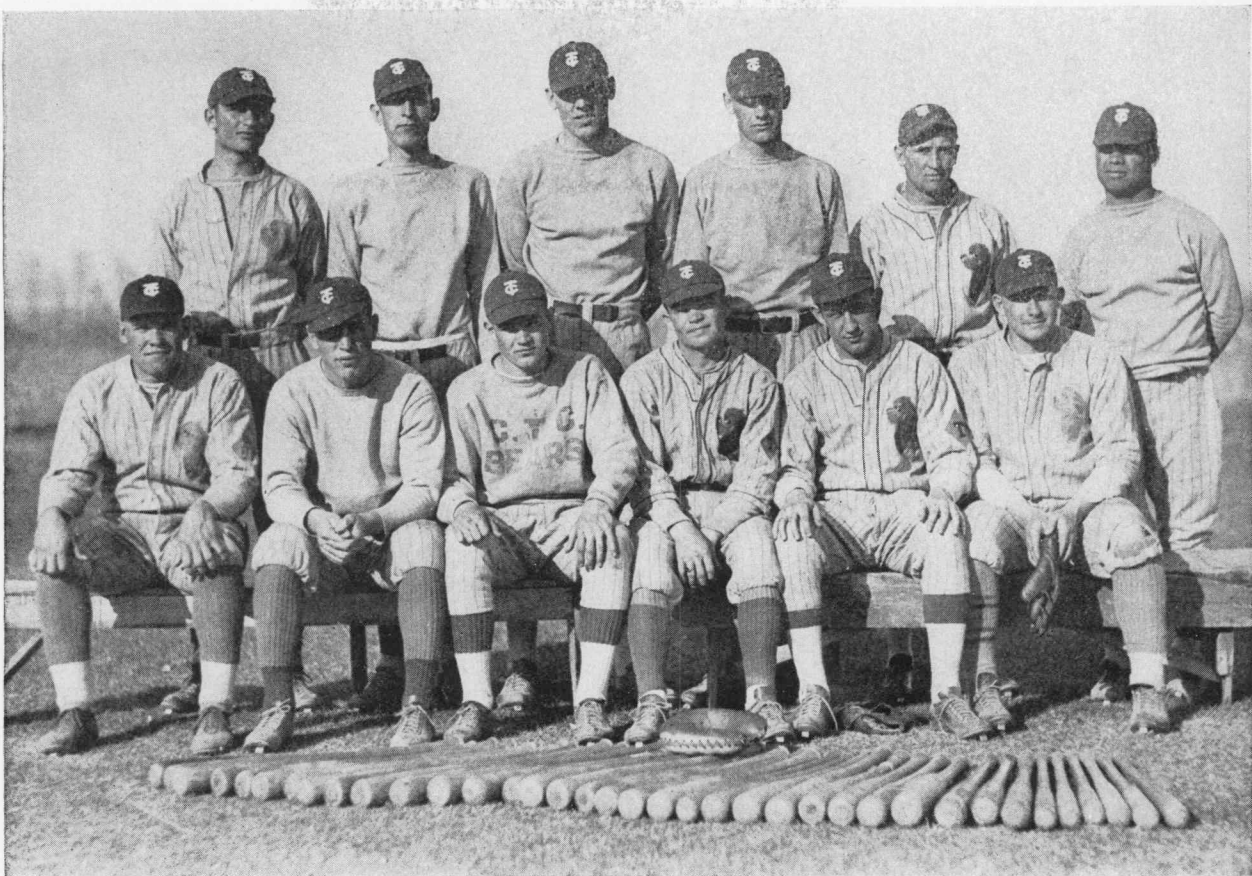
A SECTION OF THE STADIUM ON JACKSON FIELD



1929 VARSITY FOOTBALL SQUAD



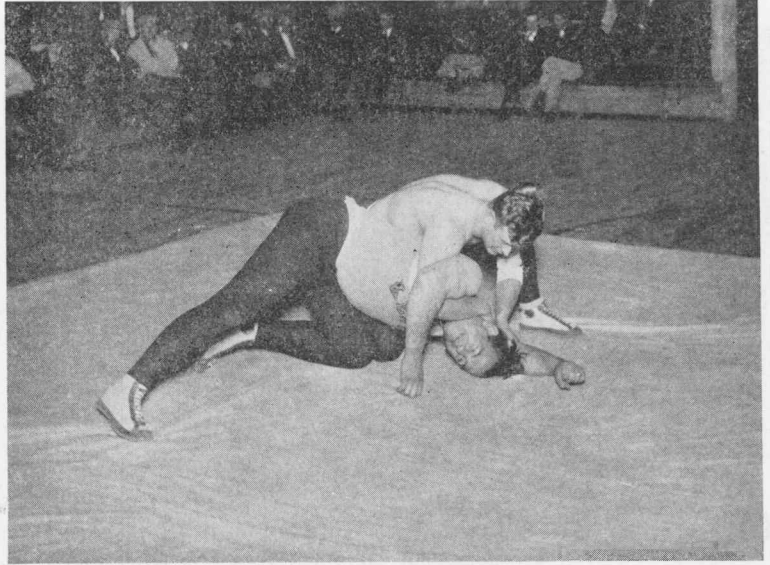
HIGH SCHOOL MENTORS ATTENDING THE SPECIAL SCHOOL FOR COACHES, COLORADO STATE TEACHERS COLLEGE



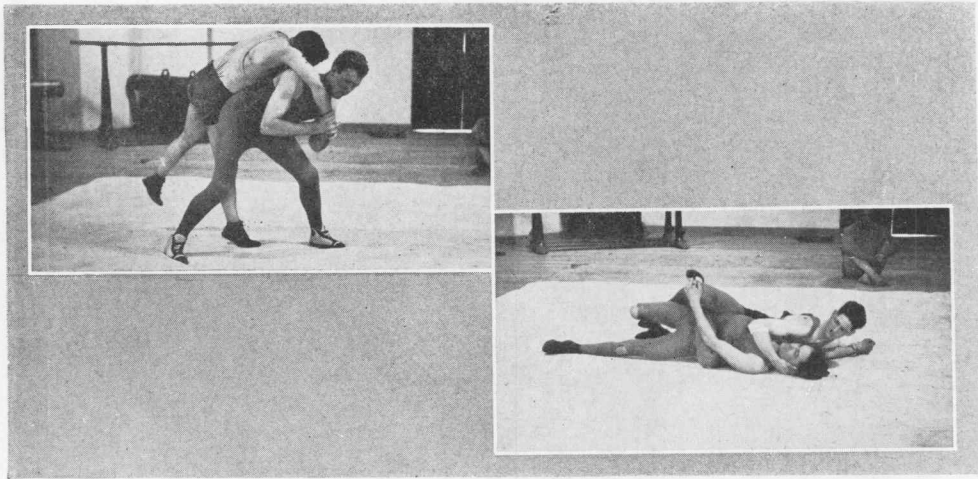
THE 1929 BASEBALL TEAM



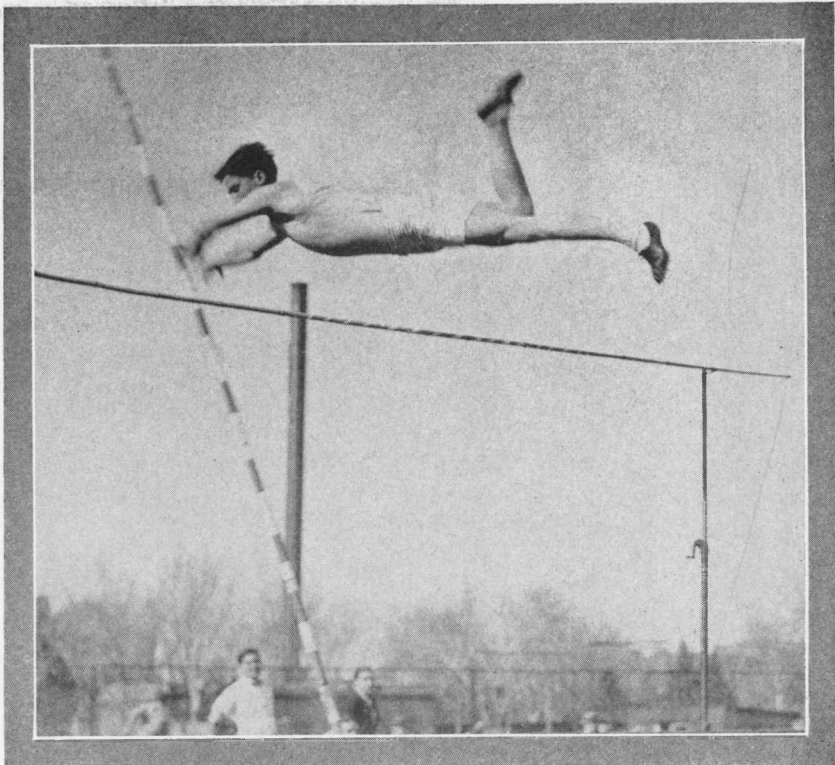
SOME TEACHERS' BASEBALL STARS NOW MAKING GOOD



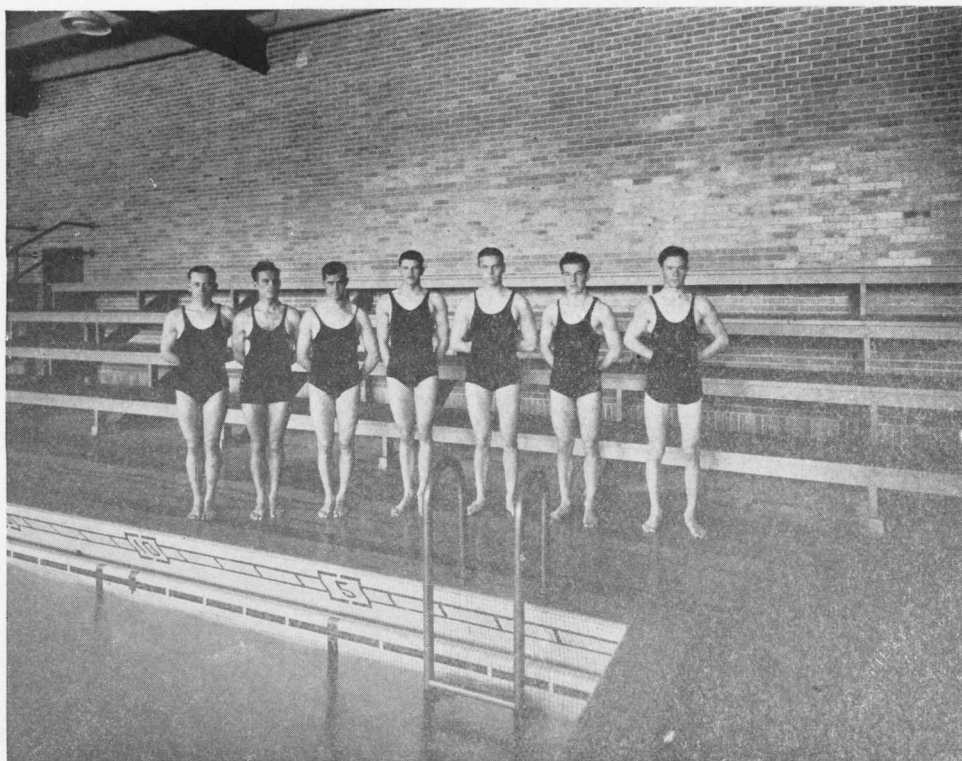
COLORADO TEACHERS CONFERENCE-WINNING MAT MEN



COULD YOU TALK WITH BRATS IN GREAT WRESTLING



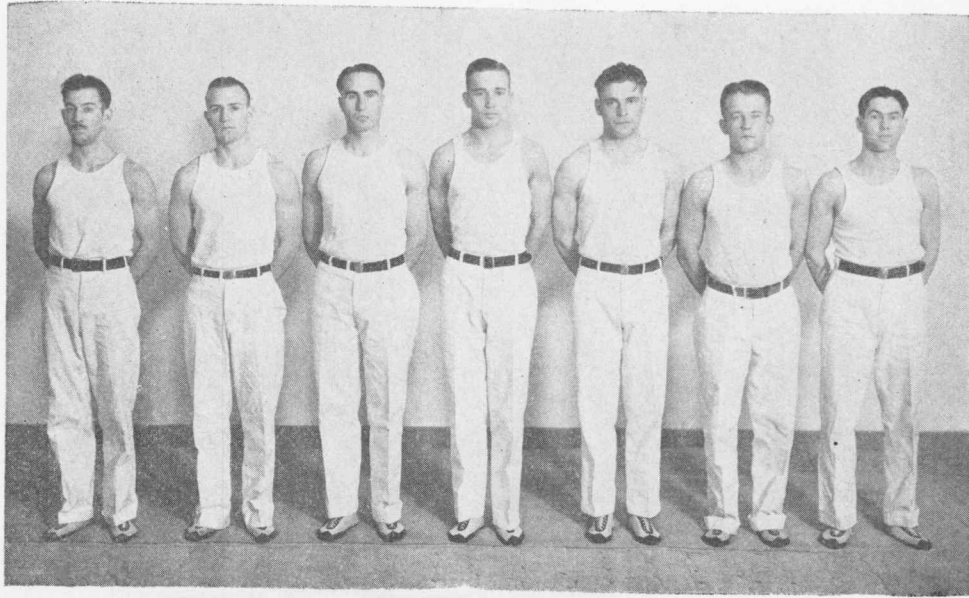
A TEACHERS COLLEGE MAN GOING OVER



THE CONFERENCE SWIMMING TEAM

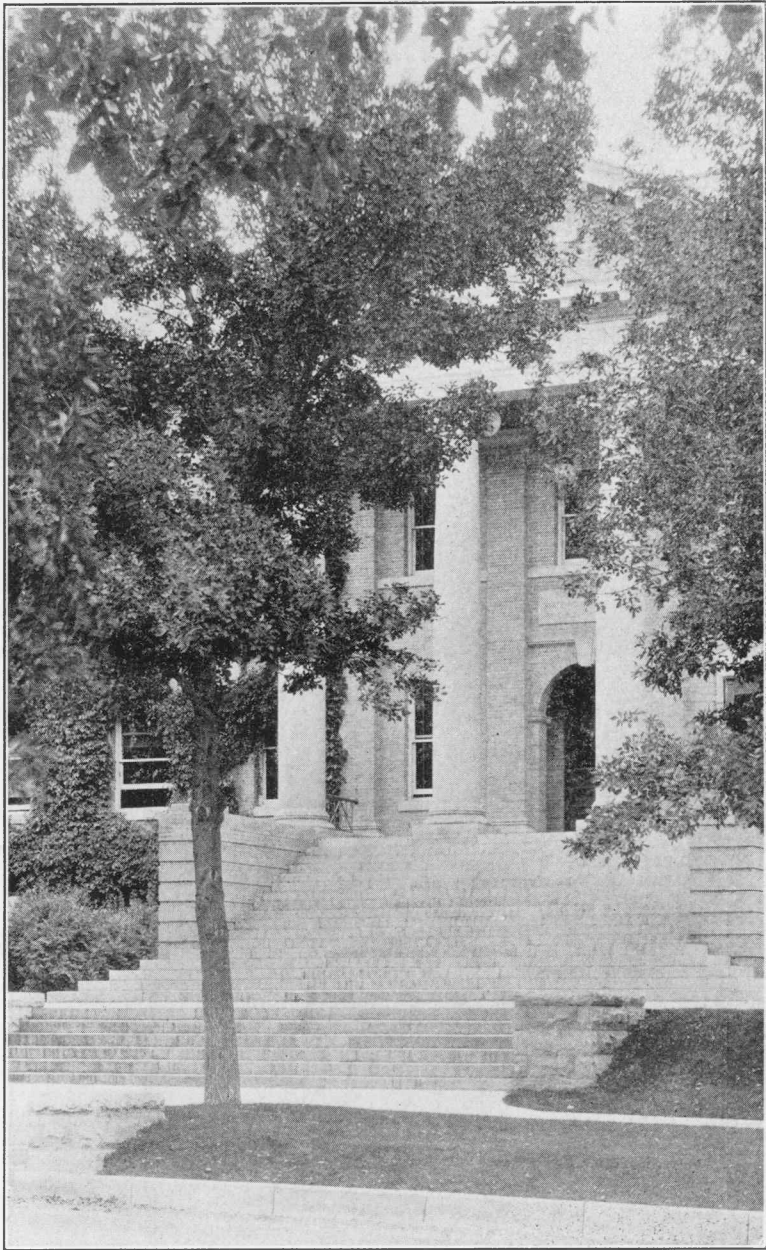


Tumbling  
and Acrobatics  
Develop  
Healthy  
Teachers



A SQUAD OF MAT MEN





GUGGENHEIM HALL OF INDUSTRIAL ARTS



A PORTION OF THE MEN STUDENTS ATTENDING COLORADO STATE

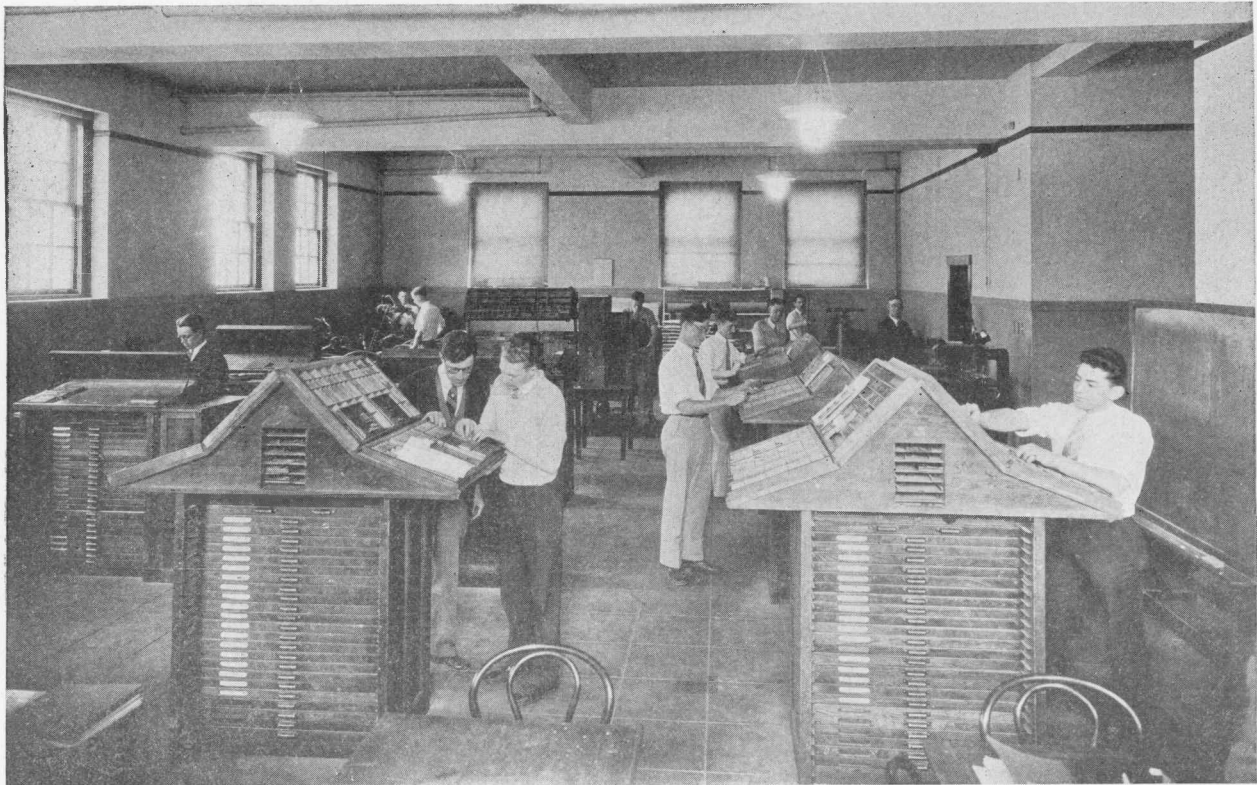
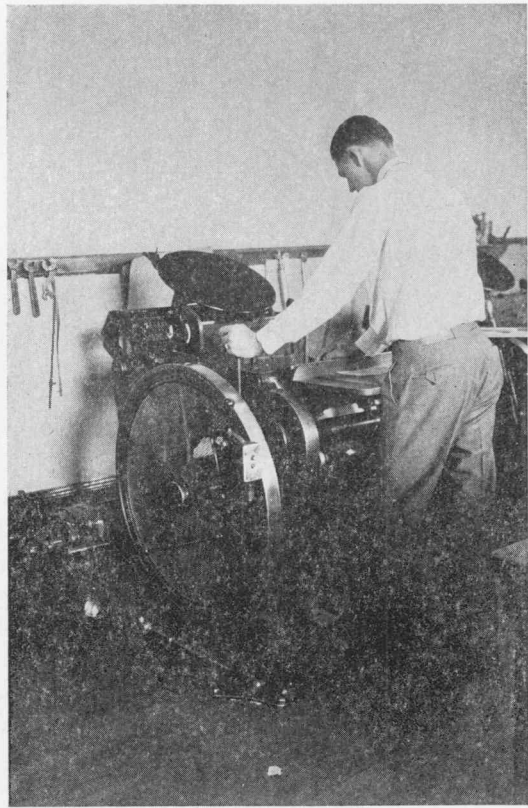




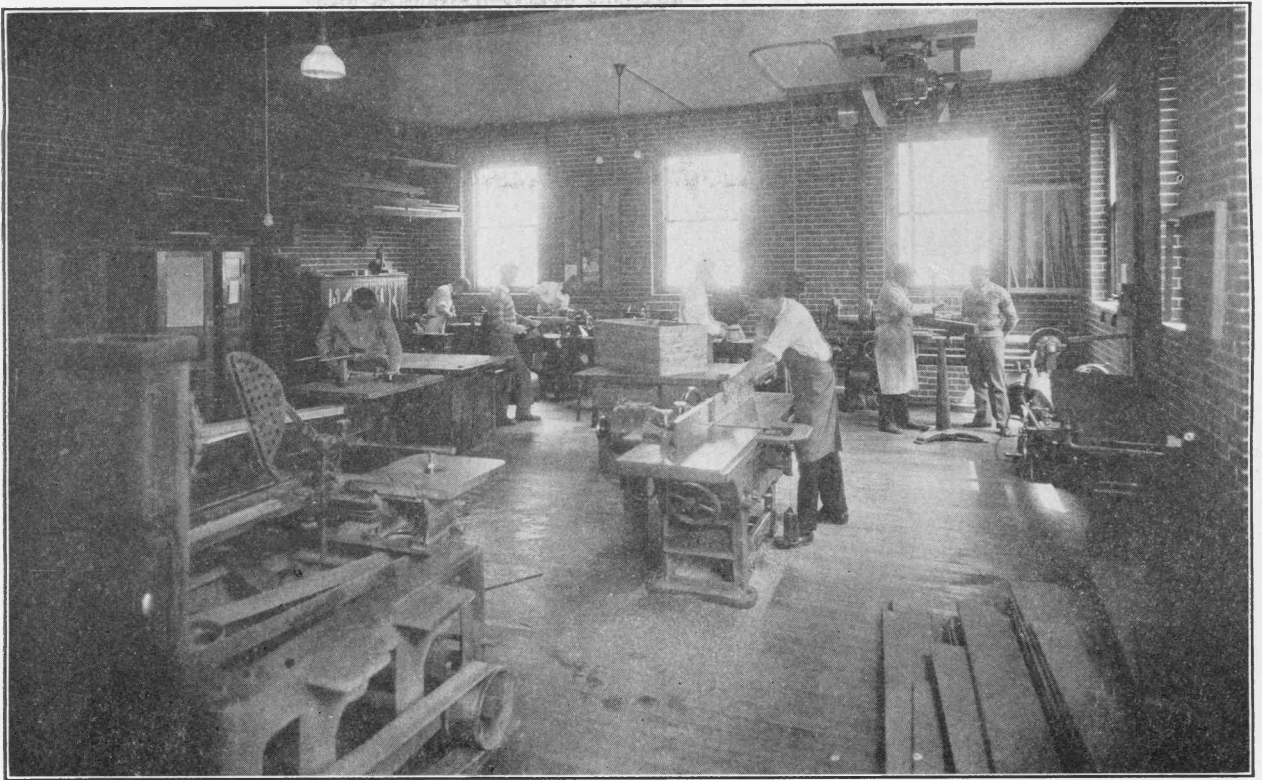
TEACHERS COLLEGE AND A FEW OF THE FACULTY MEMBERS

One of a battery  
of platen presses  
in the printing  
department.

Each press  
is operated by  
individual motor



STUDENTS LEARNING THE ART OF PRINTING



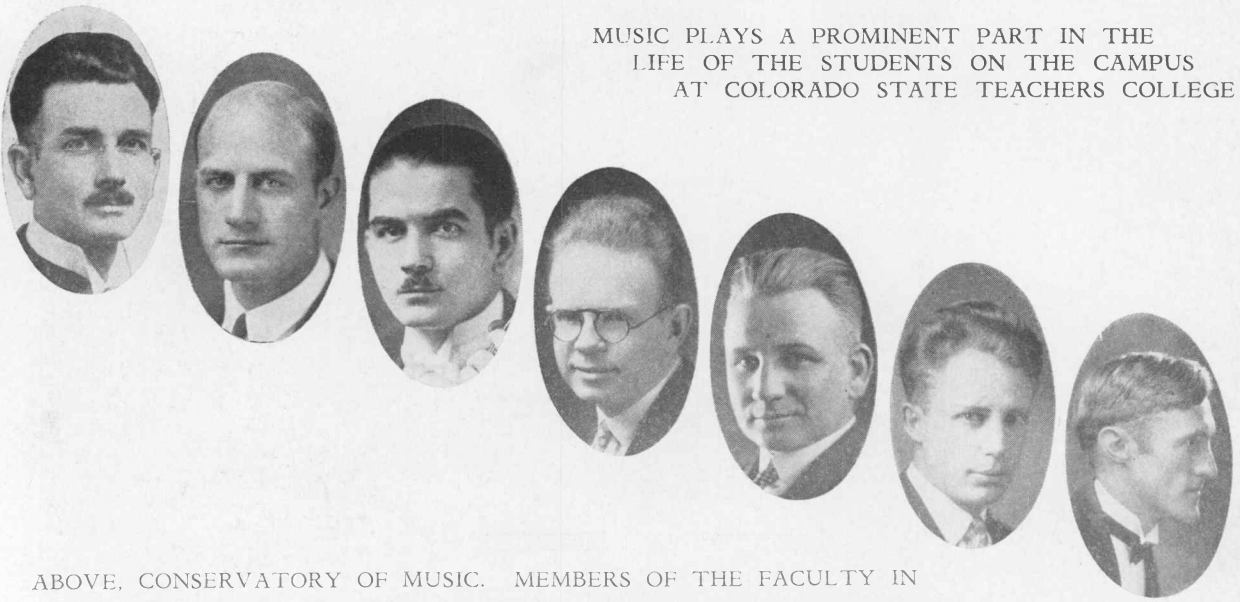
MODERNLY EQUIPPED SHOPS FOR STUDENTS IN INDUSTRIAL EDUCATION



STUDENTS IN THE ARCHITECTURAL DRAWING ROOM



MUSIC PLAYS A PROMINENT PART IN THE  
LIFE OF THE STUDENTS ON THE CAMPUS  
AT COLORADO STATE TEACHERS COLLEGE



ABOVE, CONSERVATORY OF MUSIC. MEMBERS OF THE FACULTY IN  
MUSIC. FROM TOP TO BOTTOM THEY ARE PROFESSORS CLINE, DI-  
RECTOR; MOHR, PUBLIC SCHOOL MUSIC; THOMAS, BAND AND ORCHES-  
TRA; CHADWICK, PIANO; GRUBB, VOICE; OPP, CELLO; CARTER, VIOLIN



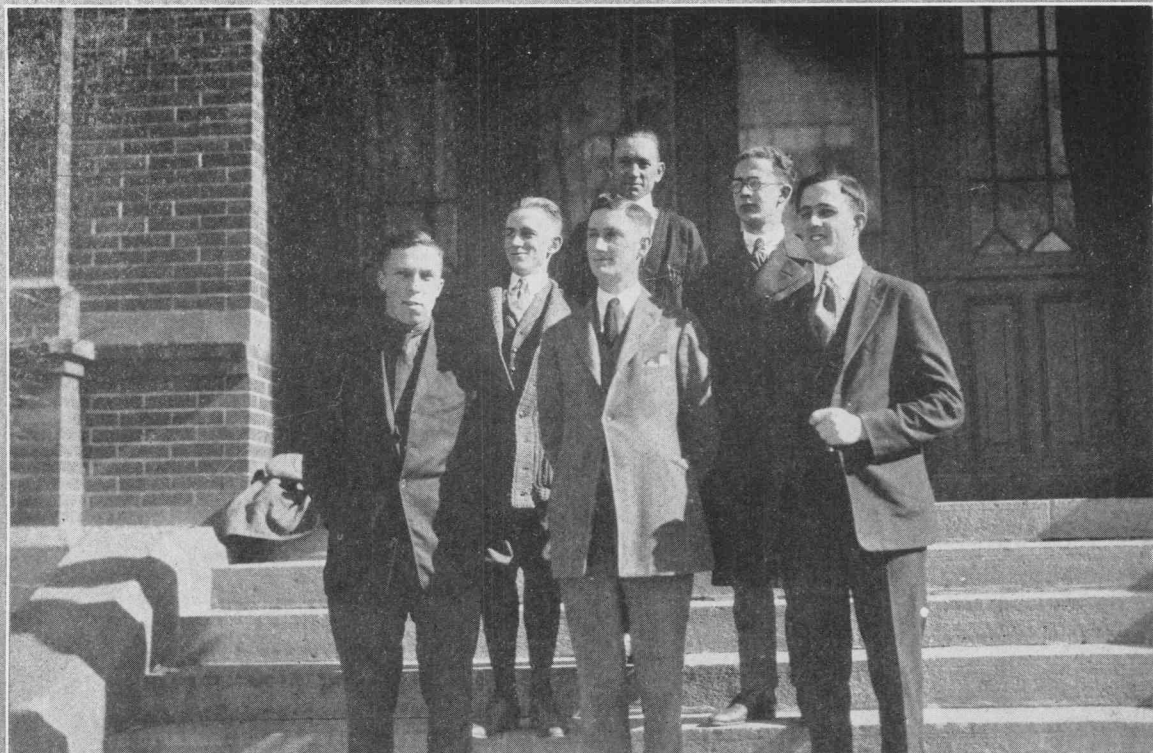
COLORADO STATE TEACHERS COLLEGE BAND



THE PHILHARMONIC ORCHESTRA

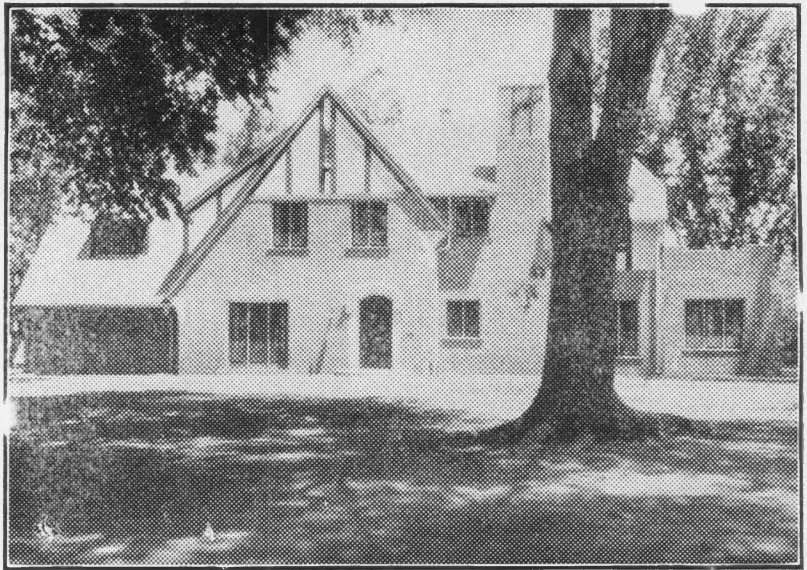


COLORADO STATE TEACHERS COLLEGE GLEE CLUB



MEMBERS OF A DEBATING TEAM

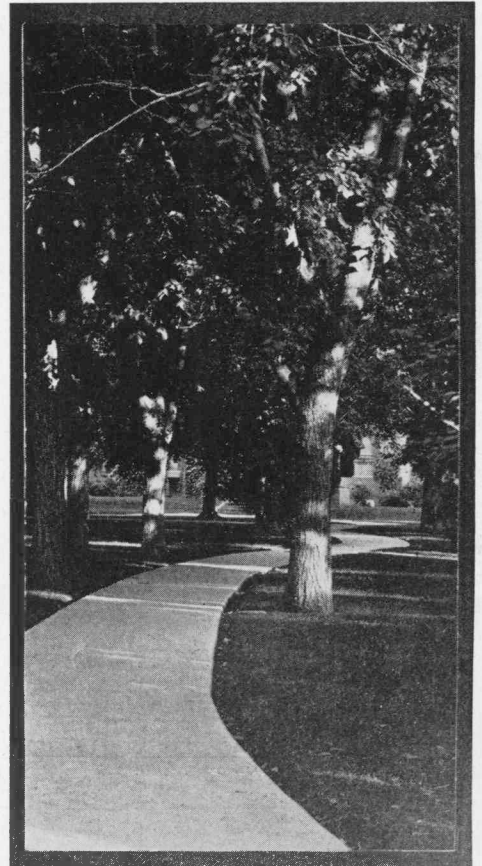
A HINT OF THE  
PICTURESQUENESS  
OF THE CAMPUS



The President's House



"Nature's Archway"



"Serpentine Walk"



DELTA  
PSI  
HOME



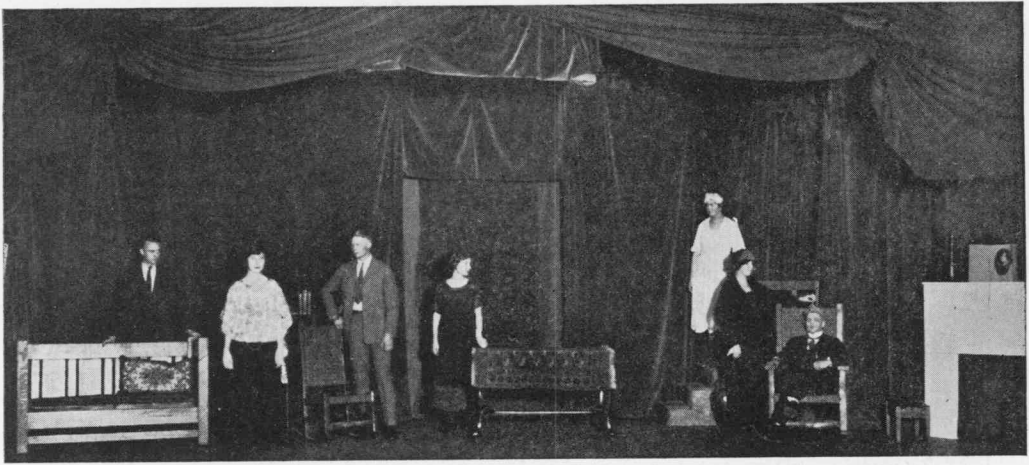
SIGMA  
MU  
EPSILON



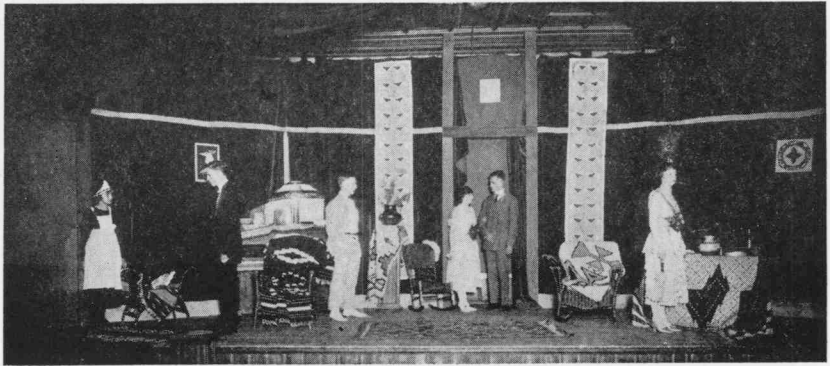
LAMBDA  
GAMMA  
KAPPA

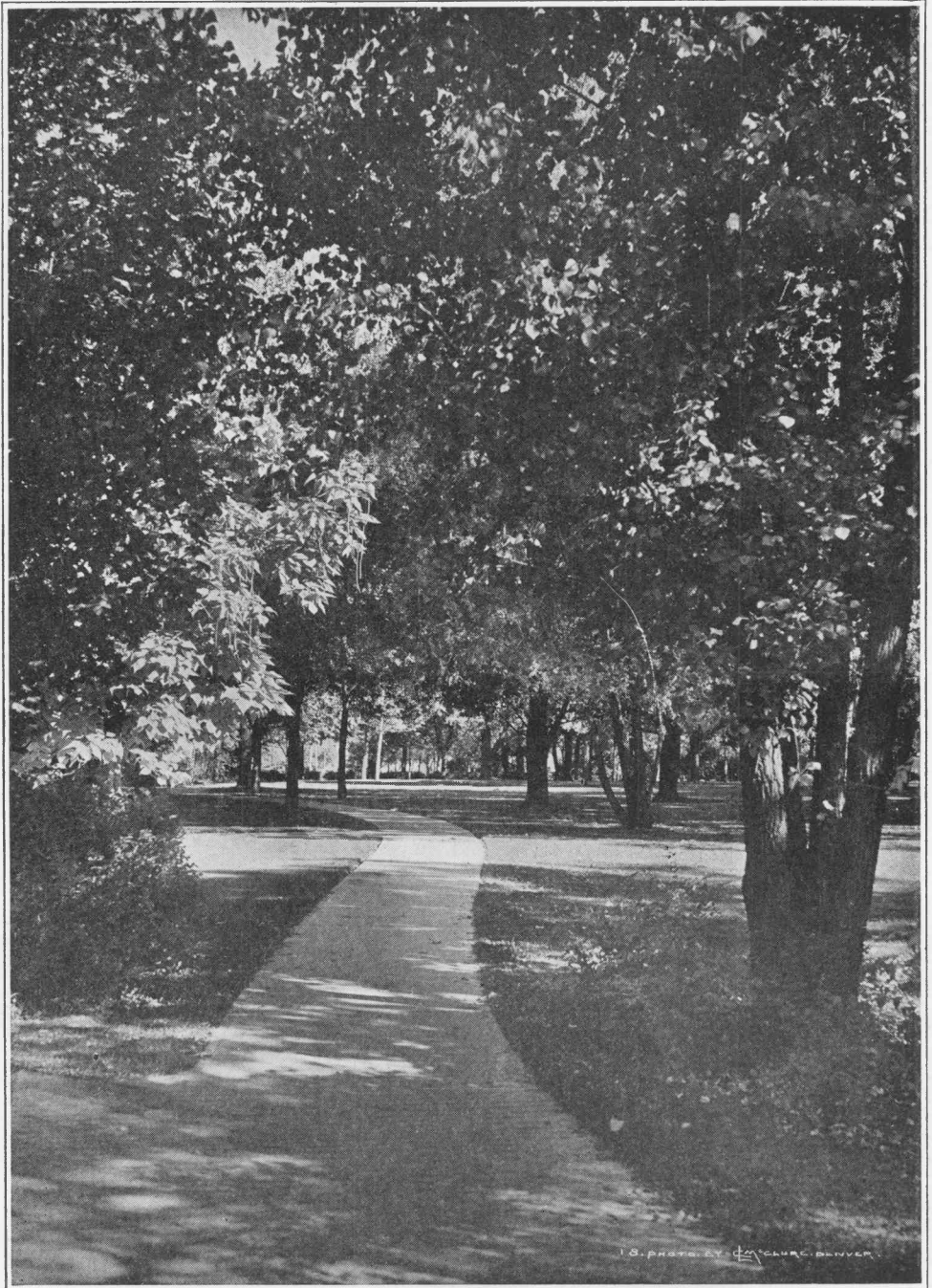
FRATERNITY LIFE PLAYS AN IMPORTANT PART IN THE LIVES OF MANY OF THE STUDENTS





Dramatics Afford  
Opportunities  
to a Large  
Number of the  
Men Students





The Campus in Summertime Is a Mass of Foliage

# GENERAL INFORMATION

## COLORADO STATE TEACHERS COLLEGE

---

Date of founding—1890	
Number of students enrolled, 1927-28—1685	(Women, 1359; Men, 326)
Number enrolled summer, 1928—2582	(Women, 2262; Men, 320)
Number on Faculty—109	Number of Men on Faculty—60
Number of Certificates and Degrees granted, 1927-28:	
Life Certificates .....	502
Bachelors' Degrees .....	209
Masters' Degrees .....	43

Costs per quarter: Fees, College—\$15 to \$20; Student fees—\$5.00; Board and room—\$100-120. Average per quarter—High, \$150; Low, \$125.  
 (Add your own estimate for travel, laundry, books, amusements, etc.) Average cost for year (3 quarters)—High, \$450; Low, \$375.

---

### Placement of Colorado State Teachers College Men Graduates 1924 through 1928

(Placement of Our Graduates is Made <i>Without Usual</i> Five Per cent Fee of Commercial Teachers' Agencies)	
Average Number of MEN Placed Annually for Different Types of Positions for Five Years, 1924-1928	Salary data for MEN for the Five Year Period, 1924-28
College Teachers .....	Highest Salary .....
Superintendents .....	Lowest Salary .....
High School Principals .....	Total Salary of All Men Placed Annually .....
Grade School Principals .....	Average Salary of All Men Placed Annually .....
Classroom Teachers .....	
(chiefly high school)	

### EXCELLENT OPPORTUNITIES FOR MEN IN TEACHING

---

#### Extra-Curricular Life of Men Students

Student Participation in School Government. Student Publications—*The Mirror* (weekly); *Cache la Poudre* (annual).  
 Student Council Boosters' Club. T Club.  
 Athletics—Regular member of Rocky Mountain College Conference. Extra-mural athletics also.  
 Music—Glee Club; Band; Orchestra; Debating; Dramatics;  
 Social Fraternities: Delta Psi; Lambda Gamma Kappa; Phi Delta Pi; Sigma Mu Upsilon.  
 Honorary Fraternities: Phi Delta Kappa; Kappa Delta Pi; Pi Kappa Delta; Alpha Psi Omega.

Clubs:	Boosters Club	Dramatic Club
	Commercial Club	Modern Wills
	Gridiron Club	Music Club
		Math Club
		History Club
		Science Club

Student Fee of \$5.00 per quarter includes subscription to the *Mirror*, and *Cache la Poudre*; entrance to all athletic contests, debates, dramatics, Artists Series.

For catalog and detailed information about the College or any of its activities, write to the

DEPARTMENT OF PUBLICATIONS

Greeley, Colorado







COLORADO STATE TEACHERS COLLEGE

BULLETIN



Dr. Curtis Merriman



Dr. F. G. Ebaugh

# Psychology Courses

SUMMER SCHOOL  
1930

COLORADO STATE  
TEACHERS COLLEGE  
Greeley, Colo.

SERIES XXIX

DECEMBER

NUMBER 4

Published monthly by Colorado State Teachers College, Greeley, Colorado.  
Entered as Second Class Matter at the Postoffice at Greeley, Colorado,  
under the Act of August 24, 1912.

## EDUCATIONAL PSYCHOLOGY

THE Department of Educational Psychology is especially interested in those facts and principles which have been both scientifically established and are of practical importance to teachers and school officials. For the coming summer quarter the Department should be more attractive to students than it has ever been in the history of the institution. In addition to the regular staff of three instructors there will be five additional teachers. Two of these, Dr. Whitney and Professor Bishop, are from other departments of the College. The other three are special teachers for the summer. Dr. Curtis Merriman, Professor of Educational Psychology in the University of Wisconsin, will teach three courses during the first half-quarter. Dr. F. G. Ebaugh, from the Psychopathic Hospital in Denver, will offer two unit courses in mental hygiene during the second half-quarter. Gladys Poole, Professor of Educational Psychology in the State Teachers College of Trenton, N. J., will offer three courses for the entire quarter.

Our College has never before offered so large a variety of courses in this department. All of these courses should be especially attractive to teachers. Most of the courses deal with tests and measurements, the nature of the child, the nature of the learning process in general and the learning of the school subjects in particular, all of which are of fundamental importance in doing the work of the schoolroom efficiently.

The department prepares students to teach psychology in colleges and high schools, to fill positions in research and measurement departments, and makes very important contributions to the preparation of teachers, supervisors, principals and superintendents.

Among the courses which have never been previously offered or offered during the summer quarter are those dealing with the psychology and measurement of personality traits, objective tests for the classroom, abnormal phases of child behavior, and individual differences in relation to school organization and instruction in all types of schools.

### 2. EDUCATIONAL PSYCHOLOGY:

a. Second year. Full quarter. Four hours.

Required of all students.

b. Second year. Full quarter. Four hours.

Required of all students.

### 3. CHILD DEVELOPMENT—Full quarter. Four hours.

100a. UNIT COURSE—Mental Hygiene—Second half quarter. One hour.

The unit will extend over a period of nine days from July 21 to July 31, inclusive.

The topics of this course are: Contributions of mental hygiene to the success of the parent and teacher; the emotional needs of the child and their significance; discussion of case studies of emotional needs; some phases of problem behavior; negativism in the child; the causes of day dreaming and phantasy; disorders of behavior; mental hygiene for schools and colleges.

100b. UNIT COURSE—Personality Problems in School Children. Second half-quarter. One hour.

The unit will extend over a period of nine days from July 21 to July 31, inclusive.

This course reviews case study method employed in the study of maladjusted school children. Typical case histories are presented, illustrating common personality disorders and problems encountered in the classroom, especially in their relation to school progress. Causes of school failures are reviewed.

Organization for mental hygiene, and the relation of these problems to the new education—the utilization of training facilities and clinics for normal schools, developments in the visiting teacher movement and in rural communities are emphasized.

One optional period of this course is to be held at the Psychopathic Hospital in Denver, where illustrative child guidance problems are presented, and methods of examination reviewed.



103. PSYCHOLOGY OF ADOLESCENCE—Third or fourth year. First half quarter. Two hours.

The more important facts and principles and their application to school organization, administration, and instruction. Physical and mental changes during adolescence and their significance; instinctive and emotional tendencies; interests; growth of intelligence; development of personality; hygiene of adolescence; prediction and control of adolescent behavior; individual differences and their relation to various problems of education.

104. PSYCHOLOGY OF ELEMENTARY SCHOOL SUBJECTS—Third year. Either half or full quarter. Two or four hours.

105. PSYCHOLOGY OF SENIOR HIGH SCHOOL SUBJECTS—Third year. Either half or full quarter. Two or four hours.

107. MENTAL TESTS AND MEASUREMENTS—Full quarter. Four hours.

108a. EDUCATIONAL MEASUREMENTS IN ELEMENTARY GRADES AND JUNIOR HIGH SCHOOLS—Fourth year. Either half or full quarter. Two or four hours.

108b. EDUCATIONAL MEASUREMENTS IN THE SENIOR HIGH SCHOOL—Fourth year. Either half or full quarter. Two or four hours.

108c. TEACHERS' CLASSROOM TESTS—Third and fourth years. Full quarter. Four hours.

115. ABNORMAL PSYCHOLOGY AND MENTAL HYGIENE—Third or fourth year. Full quarter. Four hours.

117. ELEMENTARY STATISTICAL METHODS—Third, fourth and fifth years. Full quarter, four hours.

118. GRAPHIC METHODS OF PRESENTING FACTS—Either half or full quarter. Two or four hours.

119. PSYCHOLOGY AND MEASUREMENT OF PERSONALITY TRAITS—Third or fourth year. First half quarter. Two hours.

Theories of personality based on scientific studies in psychology. The nature of personality; origin and growth of personality; distribution of traits; personality types; relation of character and personality; measurement of personality; personality traits involved in teaching; creation of personality.

213. CONFERENCE, SEMINAR AND LABORATORY COURSES—Hours depending upon amount of work done.

214. ADVANCED EDUCATIONAL PSYCHOLOGY—Full quarter. Four hours. The work of this course is limited to the psychology of learning.

216. PSYCHOLOGY OF INDIVIDUAL DIFFERENCES—First half-quarter. Two hours.

The study of individual differences in mental traits and their significance for the organization and instruction of all types of schools; causes of differences and suggestions for their control; age, sex and race differences in mental traits; problems of the super-normal and sub-normal child; measurement and correlation of mental traits.

222. EXPERIMENTAL TECHNIC AND ITS APPLICATION—Full quarter. Four hours.

223. RESEARCH IN EDUCATIONAL PSYCHOLOGY—Full quarter. Four hours.

224. RESEARCH IN EDUCATIONAL PSYCHOLOGY—THESIS—Full quarter. Four hours.

225. RESEARCH IN EDUCATIONAL PSYCHOLOGY—THESIS—Full quarter. Two hours.

FIRST HALF OF THE SUMMER QUARTER STARTS JUNE 14—  
SECOND HALF BEGINS JULY 21.

For detailed information concerning the College or any of the courses offered in the various departments, write for literature. Address the president, George Willard Frasier, Greeley, Colorado.



COLORADO STATE TEACHERS COLLEGE  
BULLETIN

SERIES XXIX

AUGUST

NUMBER 5

Sources of Income for State  
Teachers Colleges and State  
Normal Schools

(Research Bulletin No. 14)



FREDERICK L. WHITNEY, *Director*  
PHILIP M. CONDIT, *Research Assistant*

DEPARTMENT OF EDUCATIONAL RESEARCH

COLORADO STATE TEACHERS COLLEGE  
BULLETIN

Published monthly by Colorado State Teachers College, Greeley, Colorado. Entered as Second Class Matter at the Postoffice at Greeley, Colorado, under the Act of August 24, 1912.

Current numbers of any of the College Publications may be had on application to the President of the College, Greeley, Colorado.

COLORADO STATE TEACHERS COLLEGE

Sources of Income for State  
Teachers Colleges and State  
Normal Schools

(Research Bulletin No. 14)

FREDERICK L. WHITNEY, *Director*

PHILIP M. CONDIT, *Research Assistant*

DEPARTMENT OF EDUCATIONAL RESEARCH

PUBLISHED BY THE COLLEGE  
Greeley, Colorado



## TABLE OF CONTENTS

	PAGE
I. INTRODUCTION .....	1
1. THE PUBLIC SCHOOL FINANCE PROBLEM.....	1
2. THE NEED FOR INVESTIGATION IN TEACHER- TRAINING INSTITUTIONS .....	2
3. THE METHOD OF INVESTIGATION.....	4
4. SOURCE OF DATA.....	4
5. BRIEF SUMMARY OF CONCLUSIONS.....	7
II. TOTAL INCOME .....	7
1. TWO-YEAR INSTITUTIONS .....	7
2. FOUR-YEAR COLLEGES .....	9
3. PROPORTIONATE INCOME FROM EACH SOURCE IN THE NORMAL SCHOOLS.....	10
4. PROPORTIONATE INCOME FROM EACH SOURCE IN THE FOUR-YEAR COLLEGES.....	12
5. RECENT TRENDS IN PROPORTIONATE SOURCES.....	15
6. SUMMARY OF DATA ON TOTAL INCOME.....	18
II. TAXATION AS A SOURCE OF REVENUE.....	18
1. REVENUE DERIVED BY APPROPRIATIONS FROM TAX FUNDS FOR THE NORMAL SCHOOLS.....	19
2. REVENUE DERIVED BY APPROPRIATIONS FROM TAX FUNDS FOR THE FOUR-YEAR TEACHERS COLLEGES.....	20
3. THE MILL TAX IN NORMAL SCHOOLS.....	20
4. MILL TAX SUPPORT IN THE FOUR-YEAR COLLEGES.....	21
5. THE TREND IN THE MILL LEVY TYPE OF SUPPORT.....	22
6. THE PREFERRED TYPE OF SUPPORT.....	23
7. MAINTENANCE AND CAPITAL OUTLAY IN THE TWO-YEAR SCHOOLS .....	27
8. MAINTENANCE AND CAPITAL OUTLAY IN THE FOUR-YEAR COLLEGES .....	28
9. SUMMARY .....	29

	PAGE
IV. OTHER SOURCES OF INCOME.....	31
1. THE SO-CALLED "INCIDENTAL" REVENUES OF THE TWO-YEAR SCHOOLS .....	31
a. EDUCATIONAL FEES .....	32
b. NON-EDUCATIONAL FEES .....	35
c. OTHER INCIDENTAL SOURCES FOR THE NORMAL SCHOOLS .....	36
2. REVENUE FROM INCIDENTAL SOURCES IN THE FOUR-YEAR COLLEGES .....	37
a. EDUCATIONAL FEES .....	39
b. NON-EDUCATIONAL FEES .....	41
c. OTHER INCIDENTAL SOURCES FOR THE FOUR-YEAR COLLEGES .....	41
3. THE TREND IN EDUCATIONAL FEES.....	42
4. WHO FIXES THE AMOUNT OF FEES THE STUDENTS SHALL PAY?.....	44
5. PERMANENTLY INVESTED FUNDS.....	46
a. THE TWO-YEAR NORMAL SCHOOLS.....	46
b. THE FOUR-YEAR COLLEGES .....	47
6. THE LEGISLATIVE PRESCRIPTION OF THE DETAILS OF THE EXPENDITURE OF INCOMES.....	48
7. BRIEF SUMMARY OF DATA.....	51
V. STUDENT UNITS.....	53
1. THE TWO-YEAR NORMAL SCHOOLS.....	54
2. THE FOUR-YEAR TEACHERS COLLEGES.....	56
3. COMPARATIVE DATA .....	58
4. BRIEF SUMMARY OF DATA.....	59
VI. GENERAL SUMMARY AND CONCLUSIONS.....	60
1. ESSENTIAL FACTS REVEALED BY THE INVESTIGATION .....	61
2. CONTRIBUTIONS OF THE INVESTIGATION.....	62
3. RECOMMENDATIONS AND FURTHER RESEARCH NEEDED .....	63
APPENDIX A	
COPY OF QUESTIONARY .....	65



## LIST OF TABLES

	PAGE
I. THE NUMBER OF STATE TEACHER-TRAINING INSTITUTIONS LISTED IN THE UNITED STATES EDUCATIONAL DIRECTORY WHICH ARE REPRESENTED IN THIS REPORT.....	6
II. DISTRIBUTION OF THE TOTAL INCOMES OF 52 TWO-YEAR STATE PUBLIC NORMAL SCHOOLS IN NINETEEN STATES AND THE TERRITORY OF HAWAII, 1927-28.....	8
III. DISTRIBUTION OF THE TOTAL INCOME OF 62 FOUR-YEAR STATE TEACHERS COLLEGES IN 29 STATES, 1927-28.....	9
IV. THE SOURCES OF INCOME OF 65 STATE PUBLIC NORMAL SCHOOLS IN NINETEEN STATES AND THE TERRITORY OF HAWAII IN TERMS OF PROPORTIONS OF TOTAL INCOMES FOR THE FISCAL YEAR, 1927-28 .....	11
V. THE TREND OF PROPORTIONATE SOURCES OF INCOME IN THE STATE NORMAL SCHOOLS OF INDIANA COMPARED WITH SOURCES FOR THE UNITED STATES, 1920-28.....	13
VI. THE SOURCES OF INCOME OF 62 FOUR-YEAR STATE TEACHERS COLLEGES IN 29 STATES IN TERMS OF PROPORTIONS OF TOTAL INCOME FOR THE FISCAL YEAR, 1927-28.....	14
VII. THE TREND IN THE PROPORTION (PER CENT) OF TOTAL INCOME DERIVED FROM EACH OF EIGHT SOURCES IN THE CASE OF THREE TYPES OF INSTITUTIONS OF HIGHER LEARNING, 1921-28	16
VIII. THE INCOMES DERIVED SOLELY FROM TAXATION COMPARED WITH THE LEGISLATIVE APPROPRIATIONS OF 52 TWO-YEAR STATE PUBLIC NORMAL SCHOOLS IN NINETEEN STATES AND THE TERRITORY OF HAWAII, 1927-28.....	19
IX. THE INCOMES DERIVED SOLELY FROM TAXATION COMPARED WITH THE LEGISLATIVE APPROPRIATIONS OF 62 FOUR-YEAR STATE TEACHERS COLLEGES IN 29 STATES, 1927-28.....	21
X. THREE YEARS' CHANGE IN THE PROPORTION OF INCOME WHICH IS DERIVED FROM A MILL LEVY IN TEN STATES, 1925-28.....	23
XI. THE PREFERENCES AS TO METHOD OF STATE SUPPORT OF NINETEEN TWO-YEAR STATE PUBLIC NORMAL SCHOOLS AND 38 FOUR-YEAR STATE TEACHERS COLLEGES IN 32 STATES, 1927-28.....	24
XII. THE REASONS GIVEN FOR PREFERRING EITHER A MILL LEVY OR LEGISLATIVE APPROPRIATION IN 31 FOUR-YEAR AND SEVENTEEN TWO-YEAR STATE TEACHER-TRAINING INSTITUTIONS IN 39 STATES, 1927-28 .....	25
XIII. DISTRIBUTION OF THE AMOUNTS FROM STATE RESOURCES DESIGNATED AS GENERAL OR USUAL MAINTENANCE AND AS CAPITAL OUTLAY FOR 52 TWO-YEAR STATE PUBLIC NORMAL SCHOOLS IN NINETEEN STATES AND THE TERRITORY OF HAWAII, 1927-28	27

	PAGE
XIV. DISTRIBUTION OF THE AMOUNTS OF BIENNIAL STATE APPROPRIATIONS AND MILL TAX LEVIES, DESIGNATED AS GENERAL OR USUAL MAINTENANCE, AND OF CAPITAL OUTLAY IN 629 FOUR-YEAR STATE TEACHERS COLLEGES IN 29 STATES, 1927-28..	29
XV. DISTRIBUTION OF THE AMOUNTS OF REVENUE FROM INCIDENTAL SOURCES OF 52 TWO-YEAR STATE PUBLIC NORMAL SCHOOLS IN NINETEEN STATES AND THE TERRITORY OF HAWAII, 1927-28 .....	31
XVI. THE AMOUNT OF INCOME RECEIVED FROM INCIDENTAL SOURCES IN 52 TWO-YEAR STATE PUBLIC TEACHERS COLLEGES IN NINETEEN STATES AND THE TERRITORY OF HAWAII, 1927-28.....	32
XVII. THE PROPORTION OF THE TOTAL INCOME WHICH IS DERIVED FROM EACH INCIDENTAL SOURCE IN 52 TWO-YEAR PUBLIC NORMAL SCHOOLS IN NINETEEN STATES AND THE TERRITORY OF HAWAII, 1927-28 .....	33
XVIII. THE PROPORTION OF INCOME FROM INCIDENTAL SOURCES WHICH IS DERIVED FROM EACH SOURCE IN 52 TWO-YEAR STATE PUBLIC NORMAL SCHOOLS IN NINETEEN STATES AND THE TERRITORY OF HAWAII, 1927-28 .....	34
XIX. DISTRIBUTION OF THE AMOUNTS OF REVENUE FROM INCIDENTAL SOURCES OF 62 FOUR-YEAR STATE TEACHERS COLLEGES IN 29 STATES, 1927-28 .....	37
XX. THE AMOUNT OF INCOME RECEIVED FROM INCIDENTAL SOURCES IN 62 FOUR-YEAR STATE TEACHERS COLLEGES IN 29 STATES, 1927-28 .....	38
XXI. THE PROPORTION OF THE TOTAL INCOME WHICH IS DERIVED FROM EACH INCIDENTAL SOURCE IN 62 FOUR-YEAR STATE TEACHERS COLLEGES IN 29 STATES, 1927-28 .....	39
XXII. THE PROPORTION OF INCOME FROM INCIDENTAL SOURCES WHICH IS DERIVED FROM EACH SOURCE IN 62 FOUR-YEAR STATE TEACHERS COLLEGES IN 29 STATES, 1927-28.....	40
XXIII. FIFTEEN YEARS' TREND IN THE PROPORTION OF TOTAL INCOME DERIVED FROM STUDENT EDUCATIONAL FEES IN STATE INSTITUTIONS, 1913-28 .....	43
XXIV. HOW THE AMOUNTS OF FEES STUDENTS SHALL BE CHARGED ARE FIXED IN 62 FOUR-YEAR AND 65 TWO-YEAR STATE TEACHER-TRAINING INSTITUTIONS IN 39 STATES AND THE TERRITORY OF HAWAII, 1927-28 .....	45
XXV. DISTRIBUTION OF THE INCOMES FROM PERMANENTLY INVESTED FUNDS OF 52 TWO-YEAR STATE PUBLIC NORMAL SCHOOLS IN NINETEEN STATES AND THE TERRITORY OF HAWAII, 1927-28 .....	47
XXVI. DISTRIBUTION OF THE INCOME FROM PERMANENTLY INVESTED FUNDS OF 62 FOUR-YEAR STATE TEACHERS COLLEGES IN 29 STATES, 1927-28 .....	48

XXVII.	THE EXTENT OF LEGISLATIVE PRESCRIPTION OF THE DETAILS OF EXPENDITURE OF THE INCOME OF 62 FOUR-YEAR AND 65 TWO-YEAR STATE TEACHER-TRAINING INSTITUTIONS IN 39 STATES AND THE TERRITORY OF HAWAII, 1927-28 .....	50
XXVIII.	STUDENT UNIT AMOUNTS OF TOTAL INCOME, RESOURCES FROM STATE TAXING UNITS, AND INCIDENTAL SOURCES OF REVENUE IN 52 TWO-YEAR STATE PUBLIC NORMAL SCHOOLS IN NINETEEN STATES AND THE TERRITORY OF HAWAII, 1927-28 .....	55
XXIX.	STUDENT UNIT AMOUNTS OF TOTAL INCOME, RESOURCES FROM STATE TAXING UNITS, AND INCIDENTAL SOURCES OF REVENUE IN 62 FOUR-YEAR STATE TEACHERS COLLEGES IN 29 STATES, 1927-28 .....	57



## I. INTRODUCTION

In order that institutions of higher learning may secure adequate financial support today, it is necessary that administrators know very definitely the sources from which such support must come. A valuable background for such information lies in a knowledge of the practices common among comparable institutions throughout the United States. One would suppose that sufficient data were available in the numerous reports and studies which have been made concerning educational support. An investigation of the literature reveals the fact that, while higher education in colleges and universities has been quite fully studied in matters of finance, similar data concerning state teacher-training institutions are not nearly so complete.

### 1. THE PUBLIC SCHOOL FINANCE PROBLEM

The general problem of financial support of education has been attacked in its many ramifications by numerous writers. An introduction to the problem may be had through the efforts of Pittenger<sup>1</sup> who presents the fundamentals of the question; Moehlman<sup>2</sup>, whose report supplements Pittenger's book, being a later publication; and Rainey,<sup>3</sup> who enters into a somewhat detailed study of the question. The relationship of the state to support is reported by Mort,<sup>4</sup> who states certain principles and proposes plans for obtaining adequate support.

The general problem has been delimited in numerous publications. A good example of such application of study to a more specific need is given in the report of Frasier<sup>5</sup> who investigated the control of city school finance. The trends of school

<sup>1</sup>Pittenger, B. F. *An Introduction to Public School Finance*. Houghton Mifflin Company, New York, 1925.

<sup>2</sup>Moehlman, A. B. *Public School Finance*. Rand, McNally and Company, Chicago, 1927.

<sup>3</sup>Rainey, H. P. *Public School Finance*. The Century Company, New York, 1929.

<sup>4</sup>Mort, P. R. *State Support for Public Schools*. Bureau of Publications, Teachers College, Columbia University, New York, 1926.

<sup>5</sup>Frasier, G. W., *The Control of City School Finance*. The Bruce Publishing Company, Milwaukee, Wisconsin, 1922.

costs are summarized by Burgess<sup>1</sup> who also shows the reasons for the changes which are taking place. Statistics for the various levels of education are published regularly by the Bureau of Education.<sup>2</sup> These reports give the costs of education for city and state institutions on the elementary, secondary, and higher levels, both public and private; and are valuable for comparative purposes.

Publications about finance in higher education have, in the past, centered mainly around universities and colleges other than strictly teacher-training institutions. There are numerous state surveys showing conditions within the several states, some of which present valuable comparative figures. The Indiana Report<sup>3</sup> is such a well-balanced study. It compares the total revenues from taxation with the amounts devoted to education, higher learning, and teacher training in the state and also in seven typical North Central states. It also lists the sources of receipts.

Unit costs in all institutions of higher learning are treated in detail in a report of the Educational Finance Inquiry Commission<sup>4</sup>. The adequacy of mill tax support is discussed in its relationship to the institutions of a specific state in a University of Texas Bulletin.<sup>5</sup> The problems relating to finance in state universities are presented by Thurber,<sup>6</sup> who cooperated with the Educational Finance Inquiry Commission.

## 2. THE NEED FOR INVESTIGATION IN TEACHER- TRAINING INSTITUTIONS

The rather large amount of literature, of which the above citations are merely typical, does not cover the field of teacher-training finance nearly so completely. Reports of investi-

<sup>1</sup>Burgess, W. R., *Trends of School Costs*. Department of Education, Russell Sage Foundation, New York, 1920.

<sup>2</sup>Tigert, J. J., *Biennial Survey of Education*. Bulletin No. 25, 1928. United States Bureau of Education, Washington, D. C., 1928.

<sup>3</sup>Reeves, F. W., and Others. *Report of a Survey of the State Institutions of Higher Learning*. Board of Public Printing, State House, Indianapolis, Indiana, 1926.

<sup>4</sup>Stevens, E. B., and Elliott, E. C., *Unit Costs of Higher Education*. The Macmillan Company, New York, 1925.

<sup>5</sup>*Mill Tax for the Support of Higher Education in Texas*. University of Texas Bulletin, No. 2236. University of Texas, Austin, September, 1922.

<sup>6</sup>Thurber, G. H., *Financial Support of State Universities*. Bulletin No. 28, 1924. United States Bureau of Education, Washington, D. C., 1924.

gations of the financial problems of this type of school are coming through in increasing numbers, but there remains much to be done.

An introduction to the whole problem of teacher training may be had through several publications. *The Growth of Teachers in Service*, by Whitney,<sup>1</sup> is such an illustration. Another book soon to be published by Frasier and Whitney<sup>2</sup> will contain a complete and reliable survey of the whole question analyzed into its details.

The historical background and recent tendencies of normal school support are given in a monograph by Stewart.<sup>3</sup> A more recent treatment of similar data is contained in a Teacher's College Contribution to Education by Hamilton.<sup>4</sup> The place of the state in teacher training is discussed by Hertzog,<sup>5</sup> while Learned introduces valuable material through a report of conditions in the state of Missouri.<sup>6</sup>

The mill tax as a form of support presents one aspect for investigation. This was reported on by Whitney<sup>7</sup> in 1925; but has not, to the writers' knowledge, been checked up since that date.

This is not intended for a complete bibliography on this important factor in teacher training. However, a survey of the literature of which these citations are typical reveals the fact that data are needed which will reveal conditions as they actually exist throughout the United States. With this fact in mind, in the fall of 1928, the Department of Educational Research of Colorado State Teachers College undertook an investigation to ascertain as completely as possible just what

<sup>1</sup>Whitney, F. L., *The Growth of Teachers in Service*. The Century Company, New York, 1927.

<sup>2</sup>Frasier, G. W., and Whitney, F. L., *Teachers College Finance*. (In process) 1929.

<sup>3</sup>Stewart, R. M., *Cooperative Method in the Development of School Support in the United States*. Monograph in Education. State University of Iowa, Iowa City, 1914.

<sup>4</sup>Hamilton, F. R., *Fiscal Support of State Teachers Colleges*. Contributions to Education, No. 165. Teachers College, Columbia University, New York, 1924.

<sup>5</sup>Hertzog, W. S., *State Maintenance for Teachers in Training*. Warwick and York, Baltimore, 1921.

<sup>6</sup>Learned, W. S., and Others. *The Professional Preparation of Teachers for American Public Schools*. Bulletin No. Fourteen. The Carnegie Foundation for the Advancement of Teaching, New York, 1920.

<sup>7</sup>Whitney, F. L., "The Mill Tax Method of Support for State Teachers Colleges and State Normal Schools." *Yearbook of the American Association of Teachers Colleges*, pp. 54-69, 1925, and *Educational Administration and Supervision*, Vol. II, pp. 473-480 (October, 1925).

the amounts and sources of incomes of all state supported teacher-training institutions were during the fiscal year of 1927-28. As the study progressed, several other important factors bearing on this question became manifest, and the scope of the study was widened to include them.

The purposes of this investigation may be briefly summarized as follows:

- a. To determine the amount of support which was available for each institution during 1927-28,
- b. To determine the proportion of this total income which was derived from each of the large sources,
- c. To analyze these sources and compare them with the sources of income of other institutions of higher learning,
- d. To determine the trend of practices and attitudes regarding a mill levy type of support as opposed to a legislative appropriation,
- e. To determine the amount of independence which administrators have in apportioning funds and fixing student fees,
- f. To report the larger items of income in terms of enrollment.

### 3. THE METHOD OF INVESTIGATION

First, a careful survey was made of the existing literature. This revealed practically all of the possible sources of financial support. A question list incorporating these sources was then devised and checked by Dr. G. W. Frasier, President of Colorado State Teachers College, and J. P. Culbertson, Business manager of this institution. These men made valuable suggestions, and the list was revised accordingly. It was then printed in final form as it appears in Appendix A.

### 4. SOURCE OF DATA

This questionnaire was sent to the president of each four-year state teachers college and each two-year state normal school listed in the *Educational Directory* of the United States



Bureau of Education.<sup>1</sup> No private or colored schools were included in the mailing list.

The source of data is shown in Table I, which indicates the number of two-year and four-year schools by states listed in the directory and the number of these which are represented in this study. Thus, column 2 shows that there are 92 two-year normal colleges in 26 states, the territory of Hawaii, and the Philippine Islands. Of these, as seen in column 3, 65 schools, constituting 71 per cent of the total number, responded to such an extent that large types of sources at least could be determined. However, only 52 reports, or 57 per cent of the total number of two-year schools, were complete enough that a full analysis could be made of the returns. This sampling is representative of nineteen states and the territory of Hawaii, or 71 per cent of the total number of states listed in the directory.

Similarly, it may be seen from columns 4 and 5 that there are 91 four-year colleges listed in 29 states. Of these 62 institutions, or 68 per cent, reported to such a degree of completeness that an analysis could be made of each. Every state in the union having such an institution is represented here. The total figures for all institutions are indicated in columns 5 and 6. Here it is evident that a report was finally secured from 127 of the 183 schools listed. This sampling of 69 per cent represents the territory of Hawaii and all but three of the 42 states of the union having either of these two types of institutions.

In a few cases where complete returns were not forth coming from the institutions themselves, other agencies such as the State Department of Education or the Board of Regents were asked to supply data. Whatever value this report may finally have is due in a large measure to the splendid cooperative manner in which the school officials have given liberally of their time and attention in filling out the rather lengthy and involved questionnaire.

<sup>1</sup>*Educational Directory*. Bulletin No. 1, 1927. United States Bureau of Education, Washington, D. C., 1927.

TABLE I

THE NUMBER OF STATE TEACHER-TRAINING INSTITUTIONS LISTED IN THE UNITED STATES EDUCATIONAL DIRECTORY (a, b) WHICH ARE REPRESENTED IN THIS REPORT

States	Two-year colleges		Four-year colleges		Total	
	Listed	Represented	Listed	Represented	Listed	Represented
1	2	3	4	5	6	7
1. Alabama.....	5	2			5	2
2. Arizona.....	0	0	2	1	2	1
3. Arkansas.....	0	0	1	1	1	1
4. California.....	0	0	7	6	7	6
5. Colorado.....	1	0	2	1	3	1
6. Connecticut.....	4	0	0	0	4	0
7. Hawaii.....	1	1	0	0	1	1
8. Georgia.....	3	2	0	0	3	2
9. Idaho.....	2	0	0	0	2	0
10. Illinois.....	0	0	6	2	6	2
11. Indiana.....	0	0	2	2	2	2
12. Iowa.....	0	0	1	1	1	1
13. Kansas.....	0	0	3	2	3	2
14. Kentucky.....	1	0	3	1	4	1
15. Louisiana.....	0	0	1	1	1	1
16. Maine.....	6	5	0	0	6	5
17. Maryland.....	3	1	0	0	3	1
18. Massachusetts.....	5	2	6	1	11	3
19. Michigan.....	0	0	5	4	5	4
20. Minnesota.....	4	4	2	2	6	6
21. Mississippi.....	1	0	1	1	2	1
22. Missouri.....	0	0	6	5	6	5
23. Montana.....	2	1	0	0	2	1
24. Nebraska.....	0	0	4	3	4	3
25. New Hampshire.....	2	1	0	0	2	1
26. New Jersey.....	5	5 (c)	0	0	5	5
27. New Mexico.....	1	0	2	1	3	1
28. New York.....	9	9	2	2	11	11
29. North Carolina.....	1	1	1	1	2	2
30. North Dakota.....	2	1	3	2	5	3
31. Ohio.....	0	0	3	1	3	1
32. Oklahoma.....	0	0	6	3	6	3
33. Oregon.....	2	2	0	0	2	2
34. Pennsylvania.....	13	13 (d)	0	0	13	13
35. Philippine Islands.....	1	0	0	0	1	0
36. Rhode Island.....	0	0	1	1	1	1
37. South Dakota.....	0	0	4	4	4	4
38. Tennessee.....	1	1	2	2	3	3
39. Texas.....	1	1	7	5	8	6
40. Vermont.....	1	0	0	0	1	0 (e)
41. Virginia.....	0	0	4	3	4	3
42. Washington.....	3	2	0	0	3	2
43. West Virginia.....	3	2	3	2	6	4
44. Wisconsin.....	9	9	1	1	10	10
Total.....	92	65 (f)	91	62 (f)	183	127 (f)

a. *Educational Directory: 1927*. Bulletin No. 1, 1927. United States Bureau of Education, Washington, D. C., 1927.

b. No private or colored schools were included.

c. Only three New Jersey schools are represented by complete data.

d. Only four institutions are represented by complete data.

e. Information from Vermont yielded no amounts or proportions and is included only in Table X indicating a discontinuance of mill levy support.

f. This sampling includes 71 per cent of all two-year colleges, 68 per cent of all four-year colleges, and 69 per cent of the total.

## 5. BRIEF SUMMARY OF CONCLUSIONS

In a very brief manner, then, this study may be said to have arisen through the need for more complete and detailed information on teacher-training support as shown by the limitations of existing literature. It may be best described as an attempt to determine and analyze the present sources and the attitudes toward the prevailing forms of support.

Approximately 70 per cent of the state teacher-training colleges listed in the directory of the Bureau of Education responded to the questionnaire designed to secure the necessary information. Some items of information were not answered by a large enough proportion that the results could be interpreted. Such items have been eliminated from the report.

### II. TOTAL INCOME

While it was easier to ascertain proportions of total incomes which were derived from the large types of sources, in most instances accurate statements of total amounts of support were forthcoming. An analysis of these totalities has been made and is here reported for the two types of schools, two-year normals and four-year teachers colleges. This plan of separating these two types will be followed throughout this report wherever feasible.

#### 1. TWO-YEAR INSTITUTIONS

The total amounts of income of the two-year normal schools are shown distributed in Table II. Only 52 institutions submitted reports in terms of amounts which could be shown in this array. The range is from about \$25,000 to over \$1,225,000, approximating closely a ratio of 50 to 1. While this large figure included a special appropriation of over \$400,000 made for increase of plant, the disparity between the figures is still very large, if a correction for this item is made. On the other hand, a comparison of the original figures is justifiable in one sense, as this large item of capital outlay indicates a growing condition in the one institution whereas the other must remain static.

normal school is about as well off as the four-year college with the highest figure. However, as the amount of the former may be considered atypical, nearly one-third of the latter type may be said to have better financial resources than any of the normal schools.

The spreads of the two distributions differ in the ratio of 2 to 1, showing that the amounts of the middle half of the normal schools are more nearly equal than are those of the colleges.

### 3. PROPORTIONATE INCOME FROM EACH SOURCE IN THE NORMAL SCHOOLS

In order that the sources might be studied in detail, large types of revenues were segregated as in Table IV. Here the state, federal, and local taxing units are separated. To these, incidental sources and permanently invested funds have been added. Sixty-five schools submitted sufficient information so that these per cents could be derived. The measures of central tendency must be viewed at large rather than minutely. The poor distribution of frequencies substantiates such a statement. Also, there is overlapping as in columns 2 and 3, where mill levy and appropriation types are separate. The statistical medians are computed from all of the 65 cases and therefore do not present as true a picture as do the arithmetic means.

The importance of the state unit as the major source of income is shown in columns 2 and 3. Twenty-two institutions receive all of their support from state taxation. The fact that two schools appear as reporting no support from appropriations must not be mistaken to mean that the state contributes nothing to these institutions. They appear in Column 3 as being supported by mill levy. Roughly, one may say that the state unit supplies 75 per cent of the resources of the normal schools. And it is significant to note that the percentages of this type extend from about 40 to 100. In brief, then, the normal school today receives no less than 40 per cent, more frequently 75 per cent, and in 21 cases all, of its support from state taxation.

TABLE IV

THE SOURCES OF INCOME OF 65 STATE PUBLIC NORMAL SCHOOLS IN NINETEEN STATES AND THE TERRITORY OF HAWAII IN TERMS OF PROPORTIONS OF TOTAL INCOMES FOR THE FISCAL YEAR, 1927-28

Per cent of income	State units		Incidental sources (a)	Federal sources	Local taxing units	Permanently invested funds
	Appropriation	Mill levy				
1	2	3	4	5	6	7
100	21					
96-99	1					
92-95	1					
88-91	1					
84-87	1					
80-83	2					
76-79	4					
72-75	2					
68-71	3					
64-67	0					
60-63	0					
56-59	1	3	3			
52-55	1	1	1			
48-51	9	0	9			
44-47	2	0	1			
40-43	12	9	3			
36-39	2	1	0			
32-35	0	0	1			
28-31	0	0	2			
24-27	0	0	4			
20-23	0	0	3		1	1
16-19	0	0	2		0	0
12-15	0	0	1		0	3
8-11	0	0	10		0	0
4-7	0	0	2		0	9
0.1-3	0	0	1		0	5
None	2	51	22	65	64	47
Total Approximate	65	65	65	65	65	65
median	75	42	27	0	22	6
Mean (b)	75.2	(c)	20.8	0.0	0.1	3.1

a. Includes fees, dormitory and dining hall revenue, etc.

b. Based on original figures rather than tabulation: a few small amounts such as private benefactions amount to 0.8 per cent.

c. This figure is included in column 2.

The mill tax is not frequent in this table. Its importance will be discussed more fully in a later section. The fact that it is represented by even as many as fourteen frequencies is

due to the effect of a report from nine normal schools in one state. These are seen grouped around 40 per cent.

Although a later section will be devoted to a consideration of them, it should be noted here that incidental sources are not "incidental," constituting about one-fifth to one-fourth of the total income. The spread is from zero to nearly 60 per cent. Of the 22 which report "none," many remit all fees to the state department. In lieu of fees, several states require that the student pledge himself to teach in the state a specified time, usually two to four years. The distribution is bimodal, having bunched frequencies at both 48 and 8 per cent.

The federal government does not contribute to these schools, while the local unit supplies one-fifth of the resources in only one instance. Eighteen schools report permanently invested funds as being productive.

The trend of sources in Indiana is compared with the situation in all normal schools in Table V. Column 2 indicates the proportions in 1920-21. Five years change is seen by comparing these per cents with those in column 3. On the whole, it may be seen that dependence upon state support was materially less during the latter period while student fees made up this deficiency. The per cents for the state agree quite closely with those for the country at large as expressed in column 4.

#### 4. PROPORTIONATE INCOME FROM EACH SOURCE IN THE FOUR-YEAR COLLEGES

Information for the four-year state teachers colleges comparable to that just cited for the normal schools is given in Table VI. Here, too, the approximate medians should not be considered except for comparative purposes, since the distributions are not normal. The arithmetical means are the better measures of central tendency. It is apparent from column 2 that nine colleges, or about one-seventh of the total number (62), have no resources outside of the state unit. The average for this type is not far from 80 per cent. One institution reports no resources from appropriations. It receives state aid by means of a mill levy as expressed in column 3. Only

## TABLE V

THE TREND OF PROPORTIONATE SOURCES OF INCOME IN THE STATE NORMAL SCHOOLS OF INDIANA COMPARED WITH SOURCES FOR THE UNITED STATES, 1920-28

Sources	Indiana State Normal Schools (a)		65 state normal schools of the United States, 1928-9
	1920-21	1925-26	
1	2	3	4
1. State.....	88.6	73.0	75.2
2. Students.....	6.3	20.5	20.8
3. Federal government.....	0.9	0.4	0.0
4. Other sources.....	4.2	6.1	4.0
Total.....	100.0	100.0	100.0

a. Reeves, F. W., and Others. *Report of a Survey of the State Institutions of Higher Learning in Indiana*. Board of Public Printing, Indianapolis, Indiana, 1926.

two colleges report this latter type of support, one receiving close to three-fourths of its total by this means while the other receives about two-fifths in this manner.

Here, too, it is evident that the term "incidental" cannot be taken too literally, as about one-fifth of the incomes are derived from fees and other student revenues. One school even reports over two-thirds of its total resources as coming from the students themselves. Eleven schools report no such fees, six specifically stating that all such monies are remitted directly to the state treasurer.

Fifteen schools receive small amounts from permanently invested funds (column 7), usually less than 5 per cent of the total. However, one school receives about one-sixth of all its income from such investments.

A county tax yields one-eighth of the total income of one institution (column 6). The local unit is being taxed to build a training school in another college, while still a third reports local aid.

If the proportions of the two types of teacher-training units are compared (Tables IV and VI), it seems that there are no very great differences. More normal schools rely entirely upon the state unit, and a great number remit all fees

TABLE VI

THE SOURCES OF INCOME OF 62 FOUR-YEAR STATE TEACHERS COLLEGES  
IN 29 STATES IN TERMS OF PROPORTIONS OF TOTAL INCOME  
FOR THE FISCAL YEAR, 1927-28

Per cent of income	State units		Incidental sources (a)	Federal sources	Local taxing units	Permanently invested funds
	Appropriation	Mill levy				
1	2	3	4	5	6	7
100	9					
96 - 99	3					
92 - 95	3					
88 - 91	7					
84 - 87	5					
80 - 83	5					
76 - 79	9					
72 - 75	2	1				
68 - 71	0	0	1			
64 - 67	4	0	1			
60 - 63	6	0	0			
56 - 59	1	0	1			
52 - 55	2	0	0			
48 - 51	1	0	0			
44 - 47	0	0	2			
40 - 43	1	1(b)	0			
36 - 39	0	0	2			
32 - 35	1	0	6			
28 - 31	1	0	3			
24 - 27	1	0	3			
20 - 23	0	0	8			
16 - 19	0	0	7(c)			1
12 - 15	0	0	5		1(d)	0
8 - 11	0	0	5		0	2
4 - 7	0	0	5		0	3
0.1 - 3	0	0	2	7(e)	2(f)	9
None	1	60	11(g)	55	59	47
Total.....	62	62	62	62	62	62
Approximate median.....	81	58	21	0.5	2	3
Mean (h).....	78.6	(i)	19.3	0.1	0.2	0.4

- a. Includes student fees, dormitory and dining hall revenue, etc.
- b. Includes one-eighth of inheritance taxes paid to the state treasurer.
- c. One institution reports this proportion as "oil revenue."
- d. County tax.
- e. Smith-Hughes money.
- f. For a training school in one institution.
- g. Six schools remit all fees to the state treasurer.
- h. Computed from the original figures as reported: a few scattered items such as private benefactions amount to 1.4 per cent.
- i. This figure is included in column 2.



to the state. About the same number are aided by revenue from permanently invested funds, while the federal government and the local unit contribute very little to either type.

For both two and four-year colleges, then, it may be said that about three-fourths of the support comes from the state, usually in the form of appropriations. From one-fifth to one-fourth comes from the students, while small amounts are scattered among federal and local units, revenues from investments, and a few other miscellaneous items.

##### 5. RECENT TRENDS IN PROPORTIONATE SOURCES

Very informative data are summarized in Table VII. The recent trends in resources for publicly controlled institutions of higher learning in general, for four-year state teachers colleges, and for two-year normal schools are compared. The comparisons should be studied by items, by types of institutions, and by years to see their full significance.

Since the figures in the bulletins of the United States Bureau of Education<sup>1 2</sup> divide all revenues into eight categories (column 1), the same was done for the information received in this investigation.

Increase of plant and current expenses or maintenance are listed under state or city tax as the first large item (column 1). Since the insignificance of local support has already been shown, this may be taken as state taxation without distorting the facts much. The universities show no appreciable change in per cents of capital outlay in four years' time (1921-25), the figure remaining at 10 per cent. General maintenance figures are fairly equal for the two periods (48 and 45 per cent).

Quite a difference may be noted between the university and four-year teachers college figures of columns 4, 5, and 6. These latter show that the state more nearly supports the teachers college. In four years (1923-27) this per cent has increased from 75 to 79. In columns 7, 8, and 9, this same

<sup>1</sup>Phillips, F. M., *Op. cit.*

<sup>2</sup>Tigert, J. J., *Op. cit.*

TABLE VII

THE TREND IN THE PROPORTION (PER CENT) OF TOTAL INCOME DERIVED FROM EACH OF EIGHT SOURCES IN THE CASE OF THREE TYPES OF INSTITUTIONS OF HIGHER LEARNING, 1921-28

Sources	Publicly controlled colleges, universities, and professional schools		Four-year state teachers colleges			Two-year state normal schools		
	119 institutions 1921-22 (a)	154 institutions 1925-26 (b)	88 institutions 1923-24 (c)	101 institutions 1925-26 (b)	62 institutions 1927-28	107 institutions 1923-24 (c)	102 institutions 1925-26 (b)	65 institutions 1927-28
1	2	3	4	5	6	7	8	9
I. State or city tax								
1. Increase of plant..	10.2	10.0	17.3	21.7	13.2	20.4	10.0	9.1
2. Current expenses.	47.7	44.5	57.3	52.4	65.4	55.7	55.2	66.1
II. Student fees								
1. Tuition and other educational fees...	10.6	11.2	10.3	9.7	11.0	6.2	8.1	6.7
2. Non-educational fees.....	4.4	4.9	9.2	10.6	8.3	13.1	21.2	14.1
III. Productive funds.....	2.8	2.8	0.9	0.6	0.9	0.4	(d)	2.0
IV. United States Government.....	11.1	8.7	(d)	(d)	0.1	(d)	(d)	1.1
V. Private benefactions.....	2.7	4.3	(d)	(d)	0.2	(d)	(d)	0.1
VI. All other sources.....	10.5	13.6	5.0	5.0	0.9	4.2	5.5	0.8
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

- a. Phillips, Frank M. *Statistics of Universities, Colleges, and Professional Schools, 1921-22*. Bulletin No. 20, 1924. United States Bureau of Education, Washington, D. C., 1924. Amounts were changed into these percentages.
- b. Tigert, J. J. *Biennial Survey of Education*. Bulletin No. 25, 1928. United States Bureau of Education, Washington, D. C., 1928. Amounts were changed into these percentages.
- c. Phillips, Frank M. *Statistics of Teachers Colleges and Normal Schools, 1923-24*. Bulletin No. 28, 1925. United States Bureau of Education, Washington, D. C., 1925. Amounts were changed into these percentages.
- d. Figures are not given in the report. They are probably included under "all other sources."

information is given for the normal schools. Although a greater number of schools are represented in the first two reports (107 and 102), the proportions are much alike. The largest discrepancy occurs in column 8, where 102 schools are reported as receiving only 65 per cent of their funds from the state. This figure is probably low, since all other comparable statistics indicate a higher proportion. The four-year interval since 1923 has not changed the situation to any great extent.

Educational fees (item II, 1) bear about the same relationship to the total income in all types of institutions for all years, although the figures are slightly lower for the normal schools. These lower amounts in the two-year institutions are more than balanced by the higher figures which appear as non-educational fees. Here, in column 8, the deficiency pointed out in state support is more than balanced. It is possible that the amounts which certain institutions collect from the students as fees and remit directly to the state treasurer may have been included here, whereas, in the figures of this report, they were not. The universities depend much less upon this type of income.

Productive funds (item III) contribute nearly 3 per cent of the incomes of the universities. They are reported as less than 1 per cent for the teachers colleges and in one report of the normal schools. One report on these two-year institutions omits this category entirely. However, a detailed analysis such as was made in this report, shows that 2 per cent of all funds is derived from this source.

The federal government (item IV) contributes much more to the support of other types of institutions of higher learning than to teacher-training units, about 10 per cent being indicated in columns 2 and 3. This source is ignored in the government reports of teachers colleges and normal schools but, when analyzed minutely, figures from these institutions indicate some small amounts being derived therefrom. It is possible that Smith-Hughes money is being utilized in industrial arts departments in increasing amounts, thus creating this discrepancy.

Private benefactions contribute little or nothing to teacher training, totaling at most two-tenths of 1 per cent in columns 6 and 9 but being ignored in columns 4, 5, 7, and 8. The universities are reported as benefiting as much as 4 per cent from endowments and the like.

The summation of all funds not specified but included in "other sources" is indicative of the minuteness of the analyses of the various reports. Over 10 per cent of the total re-

sources of the universities have been thrown together in this category, while the figure approximates 5 per cent in the teacher-training colleges with the exception of columns 6 and 9 which represent this report. Here, it is evident that a more detailed allocation of funds has been made, less than 1 per cent remaining for this general classification.

#### 6. SUMMARY OF DATA ON TOTAL INCOME

The status of the total incomes of teacher-training institutions may be summarized briefly as follows:

1. The two-year normal schools have incomes ranging from \$25,000 to about \$500,000, if one atypical situation is omitted. The median figure is \$180,000, and the spread of the quartile is over \$50,000.
2. The four-year colleges have total resources ranging from \$100,000 to over \$1,000,000. The median figure is over \$300,000, with a quartile spread of \$130,000. Thus, while the median of the latter group is nearly twice as large as that of the former, normal school revenue amounts have a spread of less than half as much as the four-year colleges.
3. About 75 per cent of the incomes of both types of institutions derived from state taxation; about 20 per cent from student resources; small proportions come from investments; the federal and local taxing units contribute very little to either type; and a very small residue is combined into "other sources."
4. These figures correspond closely with government statistics and with reports from a state survey of Indiana.
5. The universities secure less money from the state but more from the federal government and from private benefactions.

#### III. TAXATION AS A SOURCE OF REVENUE

The last section showed that over three-fourths of the total support of state teachers colleges and state normal schools usually come from the state as a taxing unit. It is the purpose of the present section to report further on taxation as a

source of revenue; to analyze the practices and attitudes regarding state legislative appropriations and the mill levy; and to show the trend today regarding these two methods of raising funds to support teacher training.

1. REVENUE DERIVED BY APPROPRIATIONS FROM TAX  
FUNDS FOR THE NORMAL SCHOOLS

The amounts which the two-year schools receive from local, state, and national taxation are shown distributed in Table VIII, column 2. If the one disproportionate amount of over \$700,000 be omitted, the frequencies will be seen to be spread from \$25,000 to \$325,000 with a median of \$150,000. The quartile spread is nearly \$45,000.

TABLE VIII

THE INCOMES DERIVED SOLELY FROM TAXATION COMPARED WITH THE  
LEGISLATIVE APPROPRIATIONS OF 52 TWO-YEAR STATE PUBLIC  
NORMAL SCHOOLS IN NINETEEN STATES AND THE  
TERRITORY OF HAWAII, 1927-28

Intervals	National, state, and local taxation (a)	State legislative appropriation (b)
1	2	3
\$325,000 and above	2 (c)	2 (c)
300,000 - 324,999	0	0
275,000 - 299,999	1	0
250,000 - 274,999	2	1
225,000 - 249,999	0	0
200,000 - 224,999	5	5
175,000 - 199,999	4	1
150,000 - 174,999	12	8
125,000 - 149,999	3	4
100,000 - 124,999	8	7
75,000 - 99,999	6	10
50,000 - 74,999	5	7
25,000 - 49,999	4	4
1 - 24,999	0	1
None	0	2
Total	52	52
Q <sub>3</sub>	\$181,250.00	\$164,062.50
Median	150,000.00	110,714.29
Q <sub>1</sub>	91,666.67	76,250.00
Q	44,791.67	43,906.25

- a. This includes both mill levies and appropriations.  
b. This includes both general and special appropriations.  
c. This includes one amount of \$701,048.18.

As suggested in the preceding section, state legislative appropriations comprise the bulk of such resources. This is confirmed by column 3 where the legislative appropriations distribute themselves quite similarly to the frequencies of column 2. The median is lower by about \$40,000, but the quartile spreads differ by less than \$1,000.

The typical normal school, then, derives about \$150,000 of its total income from local, state, and national taxation, and about \$110,000 of this amount comes from legislative appropriation.

## 2. REVENUE DERIVED BY APPROPRIATIONS FROM TAX FUNDS FOR THE FOUR-YEAR TEACHERS COLLEGES

Data for the four-year state teachers colleges similar to that in the above section are shown in Table IX. Tax funds contribute varying amounts from about \$50,000 to nearly \$1,000,000. However, the frequencies above \$500,000 are very few, and the median is \$247,222.22. This spread above the central tendency enlarges the quartile deviation which is over \$113,000. The report from one institution gave only the total amount and approximate proportions. It is here included opposite the item, "no data."

The state legislative appropriations in column 3 are distributed very similarly to those in column 2. This is to be expected, as appropriations are the most usual form of revenues from taxation in this type of institution. The median of column 3 differs little from that of column 2, being about \$9,000 lower. The variation or spread expressed by the Q is also somewhat smaller due to the clustering of frequencies around the median. One institution receives no support in this manner, relying instead entirely upon a mill tax. Another institution did not report sufficient data to be interpreted.

## 3. THE MILL TAX IN THE NORMAL SCHOOLS

Reference to Table IV, column 3, shows that of the 65 normal schools reporting proportionate sources of revenue, only fourteen derive any portion of their funds through a mill

TABLE IX

THE INCOMES DERIVED SOLELY FROM TAXATION COMPARED WITH THE  
LEGISLATIVE APPROPRIATIONS OF 62 FOUR-YEAR STATE  
TEACHERS COLLEGES IN 29 STATES, 1927-28

Intervals	National, state, and local taxation (a)	State legislative appropriation (b)
1	2	3
\$950,000 - 999,999	1	1
900,000 - 949,999	0	0
850,000 - 899,999	1	1
800,000 - 849,999	1	1
750,000 - 799,999	0	0
700,000 - 749,999	0	0
650,000 - 699,999	0	0
600,000 - 649,999	1	1
550,000 - 599,999	0	0
500,000 - 549,999	2	2
450,000 - 499,999	4	2
400,000 - 449,999	5	5
350,000 - 399,999	5	4
300,000 - 349,999	4	4
250,000 - 299,999	6	7
200,000 - 249,999	9	9
150,000 - 199,999	10	10
100,000 - 149,999	9	10
50,000 - 99,999	3	3
None	.0	1
No data	1	1
<b>Total</b>	<b>62</b>	<b>62</b>
<b>Q<sub>3</sub></b>	<b>\$392,500.00</b>	<b>\$375,000.00</b>
<b>Median</b>	<b>247,222.22</b>	<b>238,888.88</b>
<b>Q<sub>1</sub></b>	<b>166,250.00</b>	<b>160,000.00</b>
<b>Q</b>	<b>113,125.00</b>	<b>107,500.00</b>

a. This includes both mill levies and appropriations.

b. This includes both general and special appropriations.

levy. These schools are located in four states; Montana, Oregon, Washington, and Wisconsin; the last named reporting nine such institutions. A mill levy supplies from 39 to 58 per cent of all resources in these schools. The nine institutions in Wisconsin derive from 40 to 45 per cent of their incomes from this type of state support.

#### 4. MILL TAX SUPPORT IN THE FOUR-YEAR COLLEGES

Column 3 of Table VI indicated that only two of the 62 four-year institutions report mill levy support. One of these institutions is located at Richmond, Kentucky. Nearly 44 per

cent of its funds is derived by this method. This proportion includes one-eighth of the inheritance tax receipts turned into the state treasury and is therefore not purely a mill tax form of support. A special appropriation over one-half as large as the mill levy was made for building purposes.

Colorado State Teachers College is dependent upon a mill tax for nearly 73 per cent of its total revenue. This includes both usual maintenance and capital outlay expenditures. The balance of the support of this institution is derived from student and other incidental sources with the exception of about 1 per cent of the total revenue which is nearly equally divided between interest on delinquent taxes and income from school land.

##### 5. THE TREND IN THE MILL LEVY TYPE OF SUPPORT

In the report on the mill tax method of support made by Whitney<sup>1</sup> in 1925, ten states were reported as securing a part of their funds from this form of tax. The proportions of total incomes so secured in these states are shown in Table X, column 2. Here the percentages range from 7 in Idaho to as high as 90 in Washington. Column 3 reports the percentages after an interval of three years. In column 4, the change is expressed, a reduction of proportionate income from this source being indicated by a minus sign. All states show that they rely less upon this type of state aid. Four of the ten states receive no revenue in this manner. Of these four, however, Indiana reports that a ten-year continuing mill levy will be made beginning in October, 1929, to supply funds for permanent improvements.

Arkansas, which formerly received two-thirds of its receipts in this manner, now has no mill levy. Idaho has lost its small proportion (7 per cent). Indiana, once receiving 71 per cent in this manner, received none during the last fiscal year but, as explained above, will in the future receive a mill tax for capital outlay. Vermont did not report actual amounts, but an eleventh-hour communication stated that all revenues came from appropriations, thus suggesting that the mill tax,

<sup>1</sup>Whitney, F. L., *Op. cit.*



TABLE X

THREE YEARS' CHANGE IN THE PROPORTION OF INCOME WHICH IS DERIVED FROM A MILL LEVY IN TEN STATES, 1925-28

States	Per cent of total income		Change
	1924-25 (a)	1927-28	
1	2	3	4
1. Arkansas.....	66		-66
2. Colorado.....	79 (b)	73	- 6
3. Idaho.....	7	0	- 7
4. Indiana.....	71	0 (c)	-71
5. Kentucky.....	80 (d)	44	-36
6. Montana.....	(e)	39	0
7. Oregon.....	75	56 (b)	-21
8. Vermont.....	45	0	-45
9. Washington.....	90 (f)	58	-32
10. Wisconsin.....	56	43	-13

a. Whitney, F. L. "The Mill Tax Method of Support for State Teachers Colleges and State Normal Schools." *Educational Administration and Supervision*, Vol. II, pp. 473-480 (October, 1925).

b. This represents an average of two institutions.

c. Beginning October 1, 1929, Ball Teachers College, Muncie, Indiana, has a ten-year continuing mill levy for construction and permanent improvement.

d. This per cent is estimated from reported amounts, and includes everything but capital outlay.

e. No per cents were reported.

f. This represents an average for three normal schools.

which once yielded 45 per cent of the teacher-training funds in that state has been abandoned.

## 6. THE PREFERRED TYPE OF SUPPORT

It is clear that in actual practice the mill tax is being discarded in favor of appropriations. However, Table XI, which shows the preferences of 57 administrators in 32 states regarding these two types of support, does not indicate that opinion sanctions practice in this case. It is true that a small minority of those reporting for the normal school favor an appropriation. This fact is shown in column 2 where nine favored appropriations and only six preferred the mill levy. However, the sampling is very small, showing either that few had formed any opinion or that they did not care to commit themselves.

Twice as many expressions were forthcoming from the four-year colleges, as shown in column 4. Here, the mill levy

TABLE XI

THE PREFERENCES AS TO METHOD OF STATE SUPPORT OF NINETEEN TWO-YEAR STATE PUBLIC NORMAL SCHOOLS AND 38 FOUR-YEAR STATE TEACHERS COLLEGES IN 32 STATES, 1927-28

Preference	Two-year institutions		Four-year institutions		Total	
	Number	Per cent	Number	Per cent	Number	Per cent
1	2	3	4	5	6	7
1. Mill levy.....	6	31.6	28	73.7	34	59.7
2. Appropriation .....	9	47.4	7	18.4	16	28.1
3. No choice or opinion.....	2	10.5	2	5.3	4	7.0
4. Combination of both mill levy and appropriation ...	2	10.5	1	2.6	3	5.2
Total.....	19	100.0	38	100.0	57	100.0

is definitely preferred, 28 as compared with seven favoring this method. Only two, or 5 per cent of those reporting, had not formed any opinion, while one favored a combination of both.

The summations in columns 6 and 7 show that the mill tax has preference over appropriations in the ratio of about 2 to 1. One thing that must be noted of all teacher-training institutions is the fact that few administrators have very definite conceptions of the advantages or disadvantages of either type of support, if these reports may be taken as indicative. Only 57, of 127 officials making some report, considered this matter seriously enough to express any opinion regarding this vital question.

That administrative opinion is divided and not very definite may also be seen in Table XII, where the reasons for preference are shown. Although 57 expressed an opinion, only 48 substantiated their expression with a reason. And these are not all convincing, as items 11 and 12 of I, 2 and 4 of II, and all under III are hardly indicative of a thinking attitude.

As expected, the normal schools in column 3 show fewer reasons for preferring a mill tax and more indecisive responses to the items under III which included replies not particularly favorable to either type of support. The mill levy is

TABLE XII

THE REASONS GIVEN FOR PREFERRING EITHER A MILL LEVY OR LEGISLATIVE APPROPRIATION IN 31 FOUR-YEAR AND SEVENTEEN TWO-YEAR STATE TEACHER-TRAINING INSTITUTIONS IN 39 STATES, 1927-28

Items	Type of institution		Total
	Four-year	Two-year	
1	2	3	4
I. Mill levy			
1. More dependable.....	8 (a)	2 (a)	10
2. Eliminates biennial campaign and log rolling.....	2	1	3
3. More equitable distribution of funds.....	2 (b)		2
4. Income fixed.....	2		2
5. Makes progressive program possible.....	2		2
6. Easier to get attention and action of legislature.....	2		2
7. More funds.....	1		1
8. Increases with increased assessment values.....	1		1
9. Provides for growth as state grows.....	1		1
10. More in accordance with needs.....	1		1
11. Looks good at a distance.....	1		1
12. Theoretically best but out of the question.....	1		1
Total.....	24 (c)	3	27
II. Legislative appropriation			
1. More responsive to current needs.....	3	3	6
2. Has been satisfactory.....	1	3 (d)	4
3. Definite and certain.....	1	0	1
4. More democratic.....	1	0	1
5. Keeps citizens alert as to needs.....		1	1
6. Reveals real facts through budget.....		1	1
Total.....	6	8	14
III. Statements not particularly favorable to either			
1. Combination is best.....	1	2	3
2. Unable to judge.....		2	2
3. Choice lies in whichever gives us most money.....		1	1
4. Whichever method a school has, it wishes that it had the other. "I have no preference—yet.".....		1	1
Total.....	1	6	7
Grand total.....	31	17	48

- a. One institution specifies that it must be supplemented.
- b. If supplemented by appropriation.
- c. One president simply states a preference for mill levy, "if adequate."
- d. One president qualifies this by saying, "If we get it."

more definitely defended by the four-year colleges in column 2 while only one report showed no decision, believing that a "combination is best."

The individual reasons given by these officials differ little from those reported in the study by Whitney.<sup>1</sup> Ten now consider the mill levy to be "more dependable" while the reason with highest rank was reported three years ago as being, "certainty of income." "Freedom from political influence" is given second rank in the present study, while it ranked third in the previous report. The appropriation is considered superior by six colleges, because it is more responsive to current needs. That legislative appropriations "have been satisfactory" for four colleges indicates either that these legislatures have been especially liberal or that these institutions are unresponsive to the dynamic changes taking place in all other teacher-training institutions.

A touch of humor is added by one or two of the attempts to express an opinion in this regard. One president wrote, "whichever method a school has, it wishes that it had the other. I have no preference— —yet." Another prefers the appropriation but adds the cryptic statement, "if we get it." A comparable attitude was reflected by one administrator who prefers the mill tax method, "if adequate."

In general, then, one may say that the mill levy is being discarded for the appropriative type of support. In spite of this fact, the mill tax is preferred by a majority of the administrators who are alert to the whole problem. Its greatest advantage seems to lie in the fact that it is more dependable and fixed and eliminates some undesirable political aspects. On the other hand, those who prefer appropriations claim that these are more responsive to current needs. On the whole, this latter claim does not appear to be valid, if a definite program of expansion and growth has been determined for a period of several years.

---

<sup>1</sup>Whitney, F. L., *Op. cit.*

**7. MAINTENANCE AND CAPITAL OUTLAY IN THE  
TWO-YEAR SCHOOLS**

It was shown in section 1 of this chapter that the typical normal school received about \$110,000 from the state, either as an appropriation in the majority of cases or by a mill levy in a few instances. An attempt has been made in Table XIII to show what amounts are designated for maintenance and what amounts are specifically intended for permanent improvements or capital outlay. Maintenance includes such usual items as salaries, current expenses, repairs, etc., which are absolutely necessary for the continuance of instruction in the institution. If there is to be any expansion or improvement of plant, it must usually be provided for by funds designated as capital outlay. With teacher training presenting such crying needs today, it seems impossible that institutions for this type of training can keep the dynamic pace set by other types of higher and professional educational units unless a definite program of expansion is planned. This demands dependable amounts for building every year.

**TABLE XIII**  
DISTRIBUTION OF THE AMOUNTS FROM STATE RESOURCES DESIGNATED AS  
GENERAL OR USUAL MAINTENANCE AND AS CAPITAL OUTLAY FOR  
52 TWO-YEAR STATE PUBLIC NORMAL SCHOOLS IN NINETEEN  
STATES AND THE TERRITORY OF HAWAII, 1927-28

Intervals	Maintenance	Capital Outlay
1	2	3
\$275,000 and above		1 (a)
250,000 - 274,999	2	0
225,000 - 249,999	0	0
200,000 - 224,999	2	1
175,000 - 199,999	2	0
150,000 - 174,999	7	0
125,000 - 149,999	7	1
100,000 - 124,999	7	0
75,000 - 99,999	11	0
50,000 - 74,999	6	0
25,000 - 49,999	5	3
1 - 24,999	1	9
None	2	37
Total	52	52
Q <sub>3</sub>	\$151,785.71	\$43,750.00
Median	107,142.86	20,833.33
Q <sub>1</sub>	76,136.35	10,416.67
Q	37,824.68	16,666.67

a. This amount was for \$448,944.66.

A contrast of columns 2 and 3 shows that pitifully small amounts are allotted for expansion programs. The distributions are poor especially in column 3, and the measures of variability should not be taken as more than indicators. While \$110,000 approximates the median amount usually derived from the state by this type of institution, column 2 indicates that nearly the whole amount (\$107,000) is usually specified for maintenance. These figures do not check with the median of column 3, but this latter figure is very rough and only represents fifteen schools having any such items. The fact that one school was allowed nearly \$445,000 for improvements only serves to emphasize the paucity of the possibilities of the others. Out of fifteen who were allotted money for increase of plant, nine received amounts less than \$25,000 with the middle figure for the fifteen falling at about \$20,000. Such small amounts can hardly provide for proper growth.

#### 8. MAINTENANCE AND CAPITAL OUTLAY IN THE FOUR-YEAR COLLEGES

Amounts for the four-year colleges comparable to those for the two-year schools of the last section are shown in Table XIV. Four institutions receive amounts in excess of \$500,000 for maintenance while two approach this figure. Two colleges did not include enough information so that specific amounts allotted for these two rough classifications of expenditures could be computed. The middle figure representing the amount designated as maintenance is slightly more than \$200,000. The quartile deviation is about \$80,000.

The most outstanding fact apparent in column 3 is the large number of colleges which do not have specific funds for permanent improvement. Twenty-six report no such special appropriation, while two did not supply sufficient data.

The highest figure so set aside for improvements is about \$275,000. The median is about \$80,000, enough perhaps for a very small unit. The measures of variability are here of value only to show the unevenness of the distributions.

Comparing the two types of colleges, it is evident that the four-year institutions are better financed from the standpoint

TABLE XIV

DISTRIBUTION OF THE AMOUNTS OF BIENNIAL STATE APPROPRIATIONS AND MILL TAX LEVIES (a), DESIGNATED AS GENERAL OR USUAL MAINTENANCE, AND OF CAPITAL OUTLAY IN 62 FOUR-YEAR STATE TEACHERS COLLEGES IN 29 STATES, 1927-28

Intervals	Maintenance	Capital Outlay
1	2	3
\$375,000 and above	6 (b)	
350,000 - 374,999	1	
325,000 - 349,999	4	
300,000 - 324,999	2	
275,000 - 299,999	6	1
250,000 - 274,999	3	0
225,000 - 249,999	5	2
200,000 - 224,999	4	2
175,000 - 199,999	2	2
150,000 - 174,999	6	3
125,000 - 149,999	8	1
100,000 - 124,999	6	2
75,000 - 99,999	5	6
50,000 - 74,999	2	5
25,000 - 49,999	0	4
1 - 24,999	0	6
None	0	26
No data	2	2
Total	62	62
Q <sub>3</sub>	\$291,666.67	\$162,500.00
Median	206,250.00	83,333.33
Q <sub>1</sub>	131,250.00	40,625.00
Q	80,208.33	60,937.50

a. Mill levies in Colorado and Kentucky only.

b. These six amounts are: \$386,690.52; \$452,400.00; \$553,500.00; \$723,803.00; \$847,450.00; and \$856,855.00.

of funds available for capital outlay. Tables XIII and XIV show that the ratio of median amounts for maintenance in the four-year and two-year colleges is about 2 to 1, while the ratio of median amounts for capital outlay in the same schools is nearly 4 to 1. The former type can provide for more growth than can the latter.

### 9. SUMMARY

This section has dealt with the state as a taxing unit in the support of teacher training. While amounts derived through legislative appropriations have been compared with those secured through mill levies and the allocation of these funds to maintenance has been compared with that for capital outlay,

perhaps the most significant data presented dealt with the change from mill tax to appropriative support and the preferences for either type.

- a. In general, the four-year colleges have much better financial support, receiving a median amount of nearly \$250,000 from taxation while the normal schools receive only \$150,000. The difference between the median amounts of legislative appropriations is still more marked, being nearly \$240,000 for the former and \$110,000 for the latter.
- b. Fewer teacher-training institutions are dependent upon a mill tax than was the case three years ago, four states having abandoned this plan.
- c. In spite of this actual decrease in the number of states having a mill tax, there is a growing preference for this type of support. About 60 per cent of the officials expressing an opinion favor the mill levy, while only 28 per cent believe the appropriation preferable.
- d. The mill levy is usually preferred, because it is felt to be more certain and less dependent upon political influences.
- e. The majority of those favoring a legislative appropriation feel that such a method is more responsive to current needs.
- f. There is an apparent lack of discrimination among a number of administrators between the two main types of state allocation of funds indicating an unresponsiveness to the importance of a thorough knowledge of all aspects of finance.
- g. In the normal schools, the ratio of resources for general maintenance to that for improvement is about 5 to 1, about \$107,000 being the median amount apportioned for the former purpose while a middle figure of less than \$21,000 is set aside for the latter.
- h. The ratio of these two items in the four-year colleges is less than 2.5 to 1; over \$206,000 being the median amount designated as maintenance while over \$83,000 is allotted to permanent improvement. It is evident that the four-year colleges are permitted more expansion than are the normal schools.



#### IV. OTHER SOURCES OF INCOME

The state as a taxing unit provides about three-fourths of the revenue required for teacher training for the public schools. A large proportion of the remaining fourth is derived from student revenues. While these are mainly fees for educational purposes, there are other important items of income which this section will endeavor to analyze. These types of revenue, as contrasted with those from taxation, are popularly known as "incidental sources." As was pointed out above, this phrase is, in a way, unfortunate as it relegates this important source of income to an unimportant place merely by terminology.

##### 1. THE SO-CALLED "INCIDENTAL" REVENUES OF TWO-YEAR SCHOOLS

The amounts of these revenues are reported in Table XV, where the most important facts are shown by the irregularity of the distribution. One institution receives over \$525,000 in

**TABLE XV**

DISTRIBUTION OF THE AMOUNTS OF REVENUE FROM INCIDENTAL SOURCES OF  
52 TWO-YEAR STATE PUBLIC NORMAL SCHOOLS IN NINETEEN  
STATES AND THE TERRITORY OF HAWAII, 1927-28 (a)

Intervals	Frequency
1	2
\$180,000 and above	3 (b)
160,000 - 179,999	0
140,000 - 159,999	2
120,000 - 139,999	1
100,000 - 119,999	0
80,000 - 99,999	2
60,000 - 79,999	2
40,000 - 59,999	3
20,000 - 39,999	12
1 - 19,999	5
None	22 (c)
Total	52
Q <sub>3</sub>	\$85,000.00
Median	36,666.67
Q <sub>1</sub>	24,166.67
Q	30,416.67

- a. This includes fees, scholarships, dormitory receipts, etc.
- b. This includes one amount of \$525,337.13.
- c. In these institutions the revenue derived from incidental sources is usually remitted to the state treasurer.

TABLE XVI

THE AMOUNT OF INCOME RECEIVED FROM INCIDENTAL SOURCES IN 52 TWO-YEAR STATE PUBLIC TEACHERS COLLEGES IN NINETEEN STATES AND THE TERRITORY OF HAWAII, 1927-28

Intervals of amounts	Edu- cational fees	Non-edu- cational fees	In- terest	Exten- sion and corre- spon- dence	Sale of prop- erty	Fines and forfeit- ures	In- sur- ance	Gifts
1	2	3	4	5	6	7	8	9
\$115,000 and above		4 (a)						
110,000 - 114,999		0						
105,000 - 109,999		0						
100,000 - 104,999		0						
95,000 - 99,999		1						
90,000 - 94,999		0						
85,000 - 89,999		0						
80,000 - 84,999		0						
75,000 - 79,999		1						
70,000 - 74,999	1	1						
65,000 - 69,999	1	1						
60,000 - 64,999	0	0						
55,000 - 59,999	0	2						
50,000 - 54,999	1	0						
45,000 - 49,999	0	0						
40,000 - 44,999	0	0						
35,000 - 39,999	0	2						
30,000 - 34,999	1	0						
25,000 - 29,999	5	0						
20,000 - 24,999	2	1	1					
15,000 - 19,999	6	3	1	1				
10,000 - 14,999	8	1	6	0				
5,000 - 9,999	4	1	1	1				1
1 - 4,999	1	1	0	6	4	2	1	0
None	22 (b)	33	43	44	48	50	51	51
<b>Total</b>	<b>52</b>	<b>52</b>	<b>52</b>	<b>52</b>	<b>52</b>	<b>52</b>	<b>52</b>	<b>52</b>
<b>Approximate median</b>	<b>\$16,700</b>	<b>\$56,250</b>	<b>\$3,000</b> (c)	<b>\$3,000</b> (c)	<b>\$600</b> (c)	<b>\$700</b> (c)	<b>\$100</b> (c)	<b>\$5,000</b> (c)

a. These amounts are: \$435,050.26; \$166,623.23; \$164,078.40; and \$115,912.44.

b. Some of these institutions remit all fees to the state treasurer.

c. These figures are approximates from actual amounts.

this way, while from \$20,000 to \$40,000 is the popular figure with the median at \$36,000. Twenty-two schools do not profit directly from the students.

a. EDUCATIONAL FEES

The amounts are broken up into the several separate items in Table XVI. Column 2 shows the facts for educational fees.

This category includes all such items as tuition, registration and matriculation fees, and other like assessments made directly against the student.

In order that a complete picture may be had of the relationship of these fees to other sources of income, Tables XVII and XVIII should be examined with Table XVI. While the first of these three tables shows a distribution of these sources of income, the second table (Table XVII) translates these amounts into proportions of the total incomes of the institutions. Table XVIII expresses these funds as proportions of the total amounts received from all sources other than through taxation or permanently invested funds. Thus, a normal school having an income of \$30,000 from incidental fees distributed in Table XV, for example, may receive \$20,000 of this directly from the students in the form of fees. This would be so dis-

TABLE XVII

THE PROPORTION OF THE TOTAL INCOME WHICH IS DERIVED FROM EACH INCIDENTAL SOURCE IN 52 TWO-YEAR STATE PUBLIC NORMAL SCHOOLS IN NINETEEN STATES AND THE TERRITORY OF HAWAII, 1927-28

Per cent of total income	Educational fees	Non-educational fees	Interest	Extension and correspondence	Sale of property	Fines and forfeitures	Insurance	Gifts
1	2	3	4	5	6	7	8	9
52 - 55		1						
48 - 51		0						
44 - 47		2						
40 - 43		0						
36 - 39		0						
32 - 35		3						
28 - 31	2	0						
24 - 27	0	2						
20 - 23	2	2						
16 - 19	0	5						
12 - 15	3	2						
8 - 11	13	0						
4 - 7	8	0	9					
0.1- 3	2	2	0	8	4 (a)	2	1	1
None	22 (b)	33	43	44	48	50	51	51
Total.....	52	52	52	52	52	52	52	52
Approximate median.....	10	21	6	2	2	2	2	2

a. One institution substitutes the term merchandise for property.

b. In these institutions the revenue from incidental sources is usually remitted to the state treasury.

TABLE XVIII

THE PROPORTION OF INCOME FROM INCIDENTAL SOURCES WHICH IS DERIVED FROM EACH SOURCE IN 52 TWO-YEAR STATE PUBLIC NORMAL SCHOOLS IN NINETEEN STATES AND THE TERRITORY OF HAWAII, 1927-28

Per cent of income from incidental sources	Educational fees	Non-educational fees	Interest	Extension and correspondence	Sale of property	Fines and forfeitures	Insurance	Gifts
1	2	3	4	5	6	7	8	9
100	4							
96-99	1							
92-95	1							
88-91	0							
84-87	1	3						
80-83	0	2						
76-79	0	2						
72-75	0	2						
68-71	0	2						
64-67	1	2						
60-63	1	0						
56-59	7	0						
52-55	1	2						
48-51	1	0						
44-47	2	1						
40-43	0	0	9					
36-39	0	0	0					
32-35	0	1	0					
28-31	2	0	0					
24-27	2	0	0					
20-23	1	0	0					
16-19	2	1	0					1
12-15	2	1	0					0
8-11	1	0	0					0
4-7	0	0	0	4	1			0
0.1-3	0	0	0	4	3	2	1	0
None	22 (a)	33	43	44	48	50	51	51
Total.....	52	52	52	52	52	52	52	52
Approximate median.....	56	69	42	4	3	2	2	18

a. These institutions usually remit all such fees to the state treasurer.

tributed in column 2 of Table XVI, and might equal 20 per cent of the institution's total financial resources and be so expressed in column 2 of Table XVII. This amount would also be about 66 per cent of all revenue from incidental sources (\$20,000÷\$30,000), and would thus be tabulated opposite 64 to 67 per cent in column 2 of Table XVIII.

The educational fees of column 2, Table XVI, are poorly distributed; only three amounts exceeding \$35,000, while the

approximate median falls at a little less than \$17,000. One institution receives less than \$5,000 from this source. On the whole, practice appears to be fairly consistent when viewing these figures alone. These same amounts translated into percentages of total incomes in column 2, Table XVII, show that here, too, practices do not vary much among institutions. Two receive as high as 30 per cent of their entire resources from the students by means of fees of an educational type, two derive very small proportions (less than 4 per cent) in this manner, while the typical normal school gets about one-tenth of all its revenue by this means.

However, much more variance in proportions is apparent in Table XVIII. Four institutions receive all of their "incidental funds" from this source, while one receives as little as 8 per cent in this manner. The typical figure is slightly over one-half (56 per cent). If these figures may be taken as indicative, it may be said that in the usual financial situation, the normal school receives at least one-tenth of all its money through tuition and other similar student expenditures for educational purposes.

#### b. NON-EDUCATIONAL FEES

Non-educational fees bulk large in the total income of many normal colleges. The two largest items so designated are usually charges for dormitory and dining hall privileges. However, printing departments, trust funds such as student loans, and athletics, with the exception of activity fees or assessments, also furnish substantial amounts of revenue for a few schools. In column 3, Table XVI, four institutions receive more than \$100,000 in this manner, one even reporting about \$435,000. It may be argued that funds of this sort are merely for student accommodation and should not be considered with other monies which contribute more directly to student growth. However, this type of income does at least indicate an additional drawing power for the school, as dormitory and dining hall privileges are usually of great advantage to the students, since they usually lower the cost of living conditions.

Only nineteen two-year colleges report such revenues. A portion of the balance (33) remit such fees to a revolving fund which pro rates all such money from all normal schools in the state. Still others simply send all such money to the state treasurer, who usually credits it to a normal school fund. No reliable figures can be quoted showing the frequency of these practices. The median is about \$56,250. The proportions which these fees are of the total incomes are distributed in column 3 of Table XVII. One school receives more than one-half of its revenue in this manner. The middle figure falls at about 21 per cent. Although not accurate, due to the sampling and the distribution, this median does show that those institutions having these fees receive a much greater (2 to 1) proportion of their total resources in this manner than is true of the figures reported for educational fees in column 2. A higher median figure for non-educational than for educational revenues is also shown in Table XVIII.

#### C. OTHER INCIDENTAL SOURCES FOR THE NORMAL SCHOOLS

The best picture of sources of money other than student fees is obtained by contrasting columns 2 and 3 with the subsequent columns of Tables XVI, XVII, and XVIII.

Nine schools in Wisconsin report items under interest, the largest being specified as "school district loans" and the next being "certificates of indebtedness." "Special loans," "state depositories," and "bonds" are also listed with small amounts. These five amounts comprise about 6 per cent of the total income of these nine schools and about 40 per cent of the revenue from incidental sources, having a central figure of \$3,000.

Extension and correspondence courses furnish varying amounts of money for eight schools, one reporting nearly \$20,000, while another received about \$1,000 in the same manner. The middle figure is about \$3,000. These eight amounts approximate 2 per cent of the total resources of their respective institutions and about 4 per cent of all revenue other than that derived from taxation.

Sale of property, such as salvaged materials for example, yielded small amounts averaging \$600 to four colleges. These figures are about 2 per cent of total resources and 3 per cent of the incidental money. Two received about \$700 apiece from fines and forfeitures, while insurance yielded \$100 in one instance; and one gift of \$5,000 was reported.

## 2. REVENUES FROM INCIDENTAL SOURCES IN THE FOUR-YEAR COLLEGES

The four-year teachers colleges as a whole receive from one-fourth to one-fifth of their incomes from student sources. Since total finance figures are larger in these more advanced institutions than in the schools which offer only two years of

### TABLE XIX

DISTRIBUTION OF THE AMOUNTS OF REVENUE FROM INCIDENTAL SOURCES (a)  
OF 62 FOUR-YEAR STATE TEACHERS COLLEGES IN 29 STATES, 1927-28

Intervals	Frequency
1	2
\$300,000 - 319,999	1
280,000 - 299,999	1
260,000 - 279,999	2
240,000 - 259,999	0
220,000 - 239,999	2
200,000 - 219,999	1
180,000 - 199,999	2
160,000 - 179,999	0
140,000 - 159,999	6
120,000 - 139,999	2
100,000 - 119,999	2
80,000 - 99,999	5
60,000 - 79,999	4
40,000 - 59,999	8
20,000 - 39,999	6
1 - 19,999	9
None	11 (b)
Total	62
Q <sub>3</sub>	\$147,500.00
Median	72,500.00
Q <sub>1</sub>	32,500.00
Q	57,500.00

a. This includes student fees, scholarships, dormitory receipts, etc.

b. Six institutions remit all fees to the state treasurer.

training, the amounts received from each source are usually larger. That this is true of revenues other than tax money is apparent in Table XIX where the median is \$72,500. The same figure for the normal colleges was \$36,666.67. It is seen also that the spread of the figures is from nine amounts less than \$20,000 to one in excess of \$300,000, while the figures for the two-year schools range from five of less than \$20,000 to three above \$180,000. Whereas 22 of the 52 normal institutions reported no such funds, only eleven of the 62 four-year colleges do not receive money in this manner. Six of the eleven remit all such funds to the state treasurer.

TABLE XX

THE AMOUNT OF INCOME RECEIVED FROM INCIDENTAL SOURCES IN 62 FOUR-YEAR STATE TEACHERS COLLEGES IN 29 STATES, 1927-28

Intervals of amounts	Edu- cation- al fees	Non- edu- cation- al fees	Exten- sion and corre- spon- dence	Sale of prop- erty	Fines and forfeit- ures	In- ter- est	En- dow- ments	Schol- ar- ships	Gifts
1	2	3	4	5	6	7	8	9	10
\$220,000 and above	1 (a)	1							
210,000 - 219,999	0	1							
200,000 - 209,999	0	0							
190,000 - 199,999	0	1							
180,000 - 189,999	0	0							
170,000 - 179,999	1	0							
160,000 - 169,999	0	0							
150,000 - 159,999	1	0							
140,000 - 149,999	2	0							
130,000 - 139,999	0	1							
120,000 - 129,999	1	1							
110,000 - 119,999	0	0							
100,000 - 109,999	0	0							
90,000 - 99,999	1	0							
80,000 - 89,999	1	5							
70,000 - 79,999	3	1							
60,000 - 69,999	5	3	1						
50,000 - 59,999	2	1	0						
40,000 - 49,999	4	1	0						
30,000 - 39,999 (b)	7	2	0						
20,000 - 29,999	7	4	1						
10,000 - 19,999	9	4	3				2		1
1 - 9,999	3	10	12	8	4	3	1	2	0
None	14	26	45	54	58	59	59	60	61
Total	62	62	62	62	62	62	62	62	62
Approximate median	\$37,000	\$30,000	\$3,000	\$1,500	\$180	\$500	\$15,000	\$500	\$10,000

a. This was an amount of \$263,715.62.

b. One institution reported "a temporary loan of \$38,000." This amount is not included in these figures.



The amounts derived from each source and the proportions which these are of total and incidental incomes respectively are shown in Tables XX, XXI, and XXII in the same manner in which similar data were distributed in the previous section.

a. EDUCATIONAL FEES

The fees collected directly from the students for educational purposes are distributed by amounts in column 2 of Table XX. One college receives over \$250,000 in this manner, while three show sums of less than \$10,000. Eight collect no such charges, and six remit them to the state treasurer. The median here is \$37,000, while it is less than half of this for the two-year schools (\$16,700, Table XVI).

Distributed into proportions of total incomes in column 2 of Table XXI, these amounts are seen to approximate a middle

TABLE XXI

THE PROPORTION OF THE TOTAL INCOME WHICH IS DERIVED FROM EACH INCIDENTAL SOURCE IN 62 FOUR-YEAR STATE TEACHERS COLLEGES IN 29 STATES, 1927-28

Per cent of total income	Edu-cation-al fees	Non-edu-cation-al fees	Exten-sion and corre-spondence	Sale of prop-erty	Fines and forfeit-ures	In-terest	En-dow-ments	Schol-ar-ships	Gifts
1	2	3	4	5	6	7	8	9	10
52 - 55		1							
48 - 51		0							
44 - 47		1							
40 - 43		0							
36 - 39		1							
32 - 35		1							
28 - 31	1	0							
24 - 27	3	0							
20 - 23	5	3	1						
16 - 19	6	5	0						
12 - 15	12	3	0						
8 - 11	9	3	0				1		
4 - 7	10	10	1				1		
0.1 - 3	2	8	15	8	4	3	1	2	1
None	14	26	45	54	58	59	59	60	61
Total	62	62	62	62	62	62	62	62	62
Approximate Median	13	8	1	0.5	0.1	0.1	6	0.3	2.5

TABLE XXII

THE PROPORTION OF INCOME FROM INCIDENTAL SOURCES WHICH IS DERIVED FROM EACH SOURCE IN 62 FOUR-YEAR STATE TEACHERS COLLEGES IN 29 STATES, 1927-28

Per cent of total income	Educa-tional fees	Non-educa-tional fees	Exten-sion and corre-spondence	Sale of prop-erty	Fines and forfeit-ures	In-terest	En-dow-ments	Schol-ar-ships	Gifts
1	2	3	4	5	6	7	8	9	10
100	10								
96 - 99	2								
92 - 95	1								
88 - 91	0								
84 - 87	2								
80 - 83	2	1							
76 - 79	2	2							
72 - 75	3	3							
68 - 71	2	2							
64 - 67	1	0							
60 - 63	1	3							
56 - 59	2	0							
52 - 55	0	3							
48 - 51	4	1							
44 - 47	2	2	1						
40 - 43	2	1	0						
36 - 39	3	1	0				1		
32 - 35	0	1	0				0		
28 - 31	2	1	0				0		
24 - 27	1	5	0				0		
20 - 23	5	1	0				0		
16 - 19 (a)	1	2	1				1		
12 - 15	0	3	1				0		
8 - 11	0	3	2				0		
4 - 7	0	1	5	2			0	1	
0.1- 3	0	0	7	6	4	3	1	1	1
None	14	26	45	54	58	59	59	60	61
Total	62	62	62	62	62	62	62	62	62
Approximate Median	68	40	5	2	2	1	18	3	2

a. One institution reports a "temporary loan of \$38,000 which amounts to 18 per cent of the total incidental receipts."

per cent of 13. The central tendency for the normal schools was 10 per cent. The ranges for the two types of colleges are the same (1 to 31 per cent).

Ten institutions have no other incidental resources as indicated in Table XXII. The typical four-year college receives about two-thirds of all such revenues from this particular source. This is larger than the median figure for the two-

year normals in Table XVIII. This is to be expected since Table VII showed the four-year schools to be receiving a large proportionate amount from student expenditures for educational assessments.

#### b. NON-EDUCATIONAL FEES

The amounts contributed by dormitories, dining halls, and similar sources which are indicative largely of the self-sufficiency of an institution rather than mere professional status, are indicated in column 3 of Table XX. Twenty-six colleges have no such revenues, while ten receive less than \$10,000 in this manner. The highest figure is slightly in excess of \$220,000, while the median is \$30,000, or \$7,000 less than that shown for the educational fees. This is only slightly more than one-half as great as the central tendency of the normal schools (\$56,000). Although this latter figure probably magnifies the actual difference, it is very probably true that the normal colleges as a whole have better comparative facilities for housing and feeding the students.

Translated into percentages of total incomes in Table XXI, these amounts equal from less than .1 per cent to more than 50 per cent of all resources. Thus, one teacher-training unit depends upon this type for over one-half of its revenue, while the middle institution receives 8 per cent of all funds in this way. The distribution of this table also has the same range as has the similar table for the two-year schools (Table XVII).

The non-educational fees approximate 40 per cent for the typical four-year college in Table XXII. The comparable median for the normal schools in Table XVIII was 69 per cent.

#### c. OTHER INCIDENTAL SOURCES FOR THE FOUR-YEAR COLLEGES

Although student fees and charges comprise by far the largest proportion of all revenues aside from those provided by taxation, a few training units report varying amounts received through other channels. Seventeen colleges thus derive

amounts varying from a few hundred dollars to over \$60,000. These provide proportions of total incomes ranging from less than 1 to over 20 per cent. The largest amount is about 45 per cent of the incidental resources. The middle figure is \$3,000, which is the same as the similar median for the normal schools.

Property sold yielded small sums to eight colleges, averaging \$1,500. This is over twice as much as the central figure for the normals (\$600). Endowments averaging \$15,000 aided three institutions, while one received a gift of \$10,000. Interest and scholarships provided small revenues averaging about \$500 apiece for five units. These amounts did not bulk very large in the total resources as shown in columns 4 to 10 of Table XXI and but slightly more in the same columns of Table XXII.

### 3. THE TREND IN EDUCATIONAL FEES

The trend in all sources of income of teacher-training institutions was shown in Table VII. There it was apparent that the proportions of total resources which were derived through educational fees levied upon the students were about equal in the public universities and the four-year state teachers colleges (about 10 to 11 per cent). The two-year state normal schools showed somewhat smaller percentages (6 to 8), but when these proportions were added to those representing the non-educational fees the three types of colleges revealed very similar facts.

The trend in this type of receipts is shown in Table XXIII where state teachers colleges are compared with other state units of higher education. The proportion which these fees were of total incomes is shown in columns 2 and 4. During the fiscal year of 1913-14, the university group received 8.3 per cent of its resources in this manner, while the teachers colleges obtained 7.4 per cent from the students in this way. For the ten year period from 1913 to 1923, the former type of institutions made an increase in these charges of 15.7 per cent over the first proportion, while the teacher-training schools increased their percentages by 24.3 per cent. This makes the trends very similar for both types of institutions.

TABLE XXIII

FIFTEEN YEARS' TREND IN THE PROPORTION OF TOTAL INCOME DERIVED FROM STUDENT EDUCATIONAL FEES IN STATE INSTITUTIONS OF HIGHER LEARNING, 1913-28 (a)

Fiscal year	State teachers colleges (b)		State universities, colleges, and professional schools	
	Per cent	Per cent of increase over 1913-14	Per cent	Per cent of increase over 1913-14
1	2	3	4	5
1913-14 (c)	7.4 (g)		8.3	
1913-23 (c)	9.2 (g)	24.3	9.6	15.7
1921-22 (d)			10.6	27.7
1922-23 (c)	10.5 (g)	41.9	14.3	72.3
1923-24 (e)	10.3 (h)	39.2		
1925-26 (f)	9.7 (h)	31.1	11.2 (e)	34.9
1927-28	11.0 (h)	48.6		

- a. Frasier, G. W., and Whitney, F. L. *Teachers College Finance*. (In process) 1929.
- b. Table VII, Chapter II, shows that in two-year state teacher-training institutions the proportion of state educational fees to total income is much smaller, from 6 per cent to 8 per cent only; but when non-educational fees are added all student fees are practically the same percentage of all income in both four-year and two-year institutions.
- c. Hamilton, F. R. *Fiscal Support of State Teachers Colleges*. Teachers College, Columbia University, New York City, 1924.
- d. Phillips, F. M. *Statistics of Universities, Colleges, and Professional Schools, 1921-22*. Bulletin No. 20, 1924. United States Bureau of Education, Washington, D. C., 1924.
- e. Phillips, F. M. *Statistics of Teachers Colleges and Normal Schools, 1923-24*. Bulletin No. 23, 1925. United States Bureau of Education, Washington, D. C., 1925.
- f. Tigert, J. J. and Others. *Biennial Survey of Education*. Bulletin No. 25, 1928. United States Bureau of Education, Washington, D. C., 1928.
- g. Exclusive of capital outlay.
- h. Four-year state teachers colleges.

The fiscal year 1922-23 shows a particularly large figure for the university group, possibly due to variance in computation or tabulation. This proportion drops for the next three-year interval to 11.2 in column 4, which still exceeds that of column 2 for the same time period (9.7).

Results from this study indicate that this proportion has advanced to about 11 per cent. It is probably about equal to that for the other public institutions, although there are no very recent statistics for comparison.

One generalization is justified. The students are furnishing a greater share of the cost of their training than they did fifteen years ago. The increase has been fairly gradual and will probably continue to be so, if the demands of the professions are met. The state complains of its task in financing teacher training. The next logical source of revenue is the

students themselves. But may not the state be defeating its purpose if students are permitted to expend in preparation for future teaching too large a proportion of total time and energy and too large amounts for expenses?<sup>1</sup>

#### 4. WHO FIXES THE AMOUNT OF FEES THE STUDENTS SHALL PAY?

The trend in amounts of student fees has been shown to be definitely upward. The question of who fixes these amounts naturally becomes of interest. Where the administrators themselves are allowed full jurisdiction, fees may differ from what the state would decide upon.

The situation is represented in Table XXIV, column 2, showing the two-year normals, and in column 3 the four-year teachers colleges. Of the 65 two-year schools responding to some degree, eight did not include this information, nor could these data be obtained elsewhere. In the largest single number (14), the normal school board fixes these amounts. In fact, a state board of control exercises jurisdiction in this matter over 44 schools. Some official of the state (the state director of education in two instances), appears to have this authority in eleven cases, while the president is permitted this privilege in only one school. Even this official's power is curtailed, as the legislature prescribes the amount of tuition. The president is also allowed to fix the assessments made for student activities in nine institutions where the board of normal regents has the balance of power in this respect, and this official can make recommendations to the trustees in three normals.

The data were not so well reported by the four-year colleges, as shown in column 3. Here, eighteen failed to respond with this information. The state board of education fixes the amounts of fees in the largest single group of schools (13). However, some state board has this function in 37 instances, although the president's opinion evidently has much weight in seven of these cases. The president can also recommend to

---

<sup>1</sup>Hertzog, W. S., *Op. cit.*

the state director of education who, in one college, levies the fees. The dean of the college confers with a committee approved by the faculty in one institution, while department heads advise the president regarding breakage fees in one school where only this type of assessment is made.

The state, then, is responsible for the change in student assessments in by far the larger proportion of instances. This power is largely intrusted to boards of control and is seldom

TABLE XXIV

HOW THE AMOUNTS OF FEES STUDENTS SHALL BE CHARGED ARE FIXED IN 62 FOUR-YEAR AND 65 TWO-YEAR STATE TEACHER-TRAINING INSTITUTIONS IN 39 STATES AND THE TERRITORY OF HAWAII, 1927-28

Items	Type of Institution		Total
	Two-year	Four-year	
1	2	3	4
1. No data.....	8	18	26
2. State board of education.....	8(a)	13	21
3. Normal school board.....	14(b)	1	15
4. Board of regents.....	1	9	10
5. Board of trustees.....	6	3	9
6. Fixed by, and remitted to, the state.....	9	0(c)	9
7. The board of normal regents fixes registration fees, and the president fixes student activity fees.....	9	0	9
8. Trustees on recommendation of the president.....	3	3	6
9. Trustees and president.....	0	4(d)	4
10. State teachers college board.....	2	2	4
11. State board of administration.....	1	2	3
12. State director of education on presidents' recommendation.....	2	1	3
13. State legislature.....	0	2	2
14. No fees.....	1	1	2(e)
15. The dean of the college and a committee with faculty approval.....	0	1	1
16. Department heads advise president (breakage fees only).....	0	1	1
17. Minimum set by law (f).....	0	1	1
18. President (except tuition which legislature fixes).....	1		1
Total.....	65	62	127

- a. With the president's recommendations in two institutions.
- b. And superintendent of public instruction in one institution.
- c. This item of information was not definitely admitted by any four-year institution, but item 1 (no data) probably includes several which should be listed here.
- d. One institution reports, "with the approval of the state department."
- e. These data are undoubtedly incomplete and very probably should be included under item 1.
- f. But the regents may raise the minimum.

delegated directly to the president or other administrator of the college alone. However, it is usually the case that in institutions where the administration has a clear, definite knowledge of finance, it can usually guide the decisions of the governing body in matters of this kind. Of course, where administrators have no clear conceptions of these matters, the authority must be assumed by some body or person competent to make decisions.

## 5. PERMANENTLY INVESTED FUNDS

Early statesmen, such as those who framed the Northwest Ordinance, planned that public education should, in the future, profit from the immense areas of land then belonging to the government. Land grants were made, certain sections in each township were set aside as belonging to the schools, and in some commonwealths salt and swamp lands were dedicated to education. It was inevitable that the land grant colleges should benefit most from these legacies. However, it is instructive to observe the extent to which teacher-training institutions, the backbone of our educational system, are profiting from this thoughtfulness of our progenitors.

### a. THE TWO-YEAR NORMAL SCHOOLS

The annual incomes from land and other permanent investments are shown in Table XXV. The federal land grant incomes are separated from the swamp land funds in columns 2 and 3. Twelve schools profit from the former, one to an extent of about \$20,000, another \$19,000, a third \$3,000, and nine schools receive revenues less than \$1,000.

Only four schools receive swamp land benefits. Two obtain about \$3,000, and two less than \$1,000. These sums are not very large in comparison with the total annual incomes.

Twelve institutions report revenues from bonds and from interest accruing from a few other investments. These facts are reported in column 4. The amounts are widely scattered, ranging from over \$60,000 to a few hundred dollars. In all, 28 normal schools profit from these invested sources with a median amount of \$3,300.



b. THE FOUR-YEAR COLLEGES

Facts similar to those for the normal schools classify themselves in a slightly different manner for the four-year colleges in Table XXVI.

Only six of these institutions profit from federal land grants whereas twelve were reported in the normals. The median figure, however, is larger (\$10,000 compared with \$667). Swamp lands yield an average of \$3,500 to each of two four-year colleges, while four two-year schools reported such receipts.

TABLE XXV

DISTRIBUTION OF THE INCOMES FROM PERMANENTLY INVESTED FUNDS OF 52 TWO-YEAR STATE PUBLIC NORMAL SCHOOLS IN NINETEEN STATES AND THE TERRITORY OF HAWAII, 1927-28

Intervals	Federal land grants	Swamp land funds	Bonds and interest (a)	Total
1	2	3	4	5
\$20,000 and above	1		2 (b)	3
19,000 - 19,999	1		1	2
18,000 - 18,999	0		0	0
17,000 - 17,999	0		0	0
16,000 - 16,999	0		0	0
15,000 - 15,999	0		0	0
14,000 - 14,999	0		0	0
13,000 - 13,999	0		1	1
12,000 - 12,999	0		2	2
11,000 - 11,999	0		2	2
10,000 - 10,999	0		1	1
9,000 - 9,999	0		0	0
8,000 - 8,999	0		1	1
7,000 - 7,999	0		0	0
6,000 - 6,999	0		0	0
5,000 - 5,999	0		0	0
4,000 - 4,999	0		0	0
3,000 - 3,999	1	2	0	3
2,000 - 2,999	0	0	0	0
1,000 - 1,999	0	2	0	2
1 - 999	9	0	2	11
None	40	48	40	24
Total	52	52	52	52
Approximate median	\$667	\$2,500	\$12,000	\$3,300

a. This includes small amounts of Normal School Bureau fees for nine Wisconsin institutions.

b. This includes one amount of \$60,829.42 listed as local bond issue, and \$27,504.80 listed as interest and Normal School Bureau fees.

TABLE XXVI

DISTRIBUTION OF THE INCOME FROM PERMANENTLY INVESTED FUNDS OF 62  
FOUR-YEAR STATE TEACHERS COLLEGES IN 29 STATES, 1927-28

Intervals	Federal land grants	State invested funds	Swamp land funds	Other sources	Total
1	2	3	4	5	6
\$19,000 - 19,999	1				1
18,000 - 18,999	0	1			1
17,000 - 17,999	0	0			0
16,000 - 16,999	0	0			0
15,000 - 15,999	1	0			1
14,000 - 14,999	0	0		1 (a)	1
13,000 - 13,999	0	0		0	0
12,000 - 12,999	0	0		0	0
11,000 - 11,999	1	0		0	1
10,000 - 10,999	0	0		1 (b)	1
9,999 - 9,999	2	0		1 (c)	3
8,000 - 8,999	0	0		0	0
7,000 - 7,999	0	0		0	0
6,000 - 6,999	0	0		1 (d)	1
5,000 - 5,999	0	0		0	0
4,000 - 4,999	1	0		1 (e)	2
3,000 - 3,999	0	1	2	0	3
None	56	60	60	57	47
Total.....	62	62	62	62	62
Approximate median	\$10,000	\$10,000	\$3,500	\$9,500	\$9,500

- a. Land rentals
- b. Land
- c. Interest
- d. Interest on government bonds.
- e. Interest on Normal School Land Fund.

Two of these units have state invested funds, one being about \$18,000, the other \$3,000. Land rentals and interest on bonds and funds are reported in five instances, with a middle figure of \$9,500.

Altogether, fifteen four-year colleges receive some money from this type of support with a median amount of \$9,500, while 28 two-year schools profit similarly with a central figure of \$3,300.

6. LEGISLATIVE PRESCRIPTION OF THE DETAILS  
OF EXPENDITURE OF INCOMES

Although this survey has been mainly concerned with determining the facts relating to amounts and sources of incomes and the attitudes toward the various forms of revenue,

information concerning the degree of control which is exercised over administrators in the allocation of funds to different expenditures has been secured. It is evident that the administrator who can distribute the income of his institution as he sees fit is more independent and more able to progress than is one who is allowed no voice.

The facts are presented in Table XXVII, where the information is divided into three main categories. The cases where the legislature prescribes the allocation of funds are included in item I. The instances where the legislature ratifies the budget but does not prescribe directly are shown under item II. Item III gives the institutions having complete freedom in this respect. The two types of institutions are separated, column 2 including the normal schools, and column 3 the four-year teachers colleges. Frequencies are totaled in column 4.

The amounts to be budgeted as capital outlay are prescribed for eight institutions, five normals, and three teachers colleges. Since this is the only prescription made, these units may be considered fairly independent, as far as this type of fiscal control is concerned.

In general, the greater the number of categories into which the income is divided by the legislature, the less voice the administration has in the matter. In one instance, the state law makers specify seven funds into which the income of the college must be divided. Since this partition of revenue allocates the amounts for each item, little is left for the college except to see that nothing is left unspent in any one of the seven funds.

Thirteen normal schools and eleven four-year colleges indicated that the expenditure of their incomes was definitely regulated by the state legislature, but no specific list of items of expenditure was given. If these are included, then, with those having such an expression, 39 two-year and 37 four-year colleges have the expenditure of their incomes definitely regulated or prescribed by the state legislature.

In thirteen of the former type of schools and in seven of the latter, a budget submitted is ratified by the legislature. This

TABLE XXVII

THE EXTENT OF LEGISLATIVE PRESCRIPTION OF THE DETAILS OF EXPENDITURE OF THE INCOME OF 62 FOUR-YEAR AND 65 TWO-YEAR STATE TEACHER-TRAINING INSTITUTIONS IN 39 STATES AND THE TERRITORY OF HAWAII, 1927-28

Items	Type of institution		Total
	Two-year	Four-year	
1	2	3	4
I. Prescribed by the state legislature under:			
1. One category (capital outlay only).....	5	3	8
2. Two categories divided as follows:			
a. Support and permanent improvement.....	5 (a)	6	11
b. Eleven sub-heads under maintenance and three sub-heads under boarding hall.....	1	0	1
3. Three categories			
a. Capital, maintenance, and operation.....	9	0	9
b. Personal service, maintenance or supplies and equipment.....	1	3	4
c. Salaries, current expenses, and repairs or improvements.....	2	0	2
d. General maintenance, improvement or repair, and equipment.....	0	1	1
e. Salaries, departmental, and miscellaneous.....	0	1	1
4. Four categories			
a. Personal service, supplies and contractual service, equipment, and capital outlay.....	0	2	2
b. Salaries, labor, maintenance, and improvements.....	0	2 (b)	2
c. Salaries, library, maintenance, and summer school.....	0	1	1
d. Salaries, equipment, permanent improvement, and miscellaneous.....	0	1	1
e. Maintenance, repairs or betterments, special buildings, and purchase of land.....	1	0	1
f. Four heads subdivided by trustees.....	0	1	1
5. Five categories			
a. Maintenance, repairs or betterments, land improvements, new lands, and new buildings.....	1	0	1
b. Salaries, support or maintenance, buildings, repairs, and extension.....	0	1	1
c. Administration, instruction, operation, maintenance, and auxiliary agencies.....	1	0	1
d. Five or six heads (not specified).....	0	1	1
6. Six categories			
a. Salaries, maintenance, library, extension, repairs, and summer school.....	0	1	1
b. Salaries, departmental, miscellaneous, repairs, new buildings, and contingent.....	0	1	1
7. Seven categories (not specified).....	0	1	1
8. "Definite," "specific," "segregated," or "itemized".....	12	10 (c)	22
9. Certain amounts for each department.....	1	0	1
10. Blanket appropriations.....	0	1	1
II. The state legislature ratifies a budget submitted by another agent:			
1. Superintendent of public instruction.....	10	0	10
2. President of the institution.....	0	4	4
3. Department of education.....	2 (d)	1	3
4. Budget board.....	1	1	2
5. Appropriations committee.....	0	1	1
III. No prescription.....	5	8 (e,f)	13
IV. No data.....	8	10	18
Total	65	62	127

- a. Two institutions report, "extraordinary repairs and buildings."
- b. One institution reports that, "unused balances may be transferred."
- c. One institution qualifies this by adding, "according to our asking."
- d. In one institution, the budget must be approved by the governor.
- e. One institution reports, "at choice of the president."
- f. Two institutions report, "practically none."

budget is most frequently sanctioned by the superintendent of public instruction in the case of the normals, but the president of the college most often has this privilege in the institutions offering the four-year curriculum.

Thirteen institutions, five normals, and eight four-year colleges, report no legislative prescription; but even here three statements are qualified to some degree. No information was secured from eighteen schools, eight two-year and ten four-year institutions.

#### 7. BRIEF SUMMARY OF DATA

All sources of income other than that derived from taxation have been discussed in this section. The most significant fact disclosed is that "incidental sources" is poor terminology, since under this classification come funds which provide as much as a half of the income of a few institutions for teacher training while all of these colleges taken as a whole have a median of about 25 per cent. The information of this section may be briefly summarized as follows:

- a. The two-year normals receive amounts from all of these minor sources ranging from a few hundred to over \$525,000 in one instance. The middle figure is \$36,666.67. Only 30 schools report this type of revenue.
- b. The greatest proportion of the money from these minor sources in the two-year colleges is derived from non-educational fees such as dining hall and dormitory charges. About 20 per cent of the total resources comes from this type of assessment, while only 10 per cent is raised through the more educational revenues such as tuition, etc. Several schools profit from extension offerings, interest, and sales of property. Four colleges receive amounts less than \$1,000 apiece from insurance, gifts, and fines or forfeitures. The proportions of all these lesser items are each about 2 per cent of the total funds.
- c. In the four-year colleges, incidental sources yield amounts varying from about \$1,000 to over \$300,000, with a median

of \$72,500. This is twice as large as the similar figure in the two-year schools (\$36,666.67).

- d. Of the above amounts, the educational fees contribute more than non-educational, having an equal range but a higher median (\$37,000 compared with \$30,000). The former constitute about 13 per cent of all revenue, while the latter as a whole furnish only 8 per cent. The other minor sources are similar to those of item 2 above and yield correspondingly small amounts.
- e. In the last fifteen years, the trend of these student assessments has been gradually upward, both in teacher-training and in other colleges and professional schools. The former have increased nearly 50 per cent since 1914, while the latter had increased about 40 per cent up to two years ago, the time of the latest available computation.
- f. State boards, as a rule, fix the amounts of fees which shall be assessed the students. Few presidents have much independence in this matter.
- g. Twenty-eight normal schools receive amounts ranging from a few hundred dollars to as much as \$60,000 in one case from permanently invested funds. Twelve profit from federal land grants, four from swamp land funds, and twelve from bonds and interest therefrom. The median amount so earned is \$3,300.
- h. Fifteen four-year teachers colleges profit from invested lands or funds, there being a greater variety of investments than in the normals. The median amount so obtained is larger than for the smaller schools (\$9,500 compared with \$3,300).
- i. The expenditure of funds within the institution is quite definitely regulated by some state authority, usually the legislature. Only thirteen colleges report no such prescription.

## V. STUDENT UNITS

It has been shown that "one of the important elements in a true statement of achievement in the teachers college" consists "of cost figures obtained by dividing total expenditures by certain unitary elements found in the preparatory activities of the teacher-training institution."<sup>1</sup> Although the student clock hour, the credit hour, the attendance week, and other units are being tried in certain teacher-training investigations, very probably to date the unit most often used is based upon total student enrollment. Following this precedent in the analysis of costs, this section reports three important segments of fiscal support data for state teachers colleges and state normal schools in terms of student units.

Enrollments reported by the teacher-training institutions in this investigation were not reliable in all cases. However, by using also the data from two other reports, it has been possible to arrive at very close approximations to actual enrollment figures.

Kalbach<sup>2</sup> reports the enrollment for the academic year 1927-28 as well as the number of students in attendance during the summer term of 1927, which would usually be included in the total figures for the fiscal year of 1927-28. A study made by F. L. Whitney<sup>3</sup> in August, 1926, gives the number of weeks included in the summer school term of all teacher-training institutions the previous year. The enrollment during the summer term of each institution was translated into an amount of enrollment on the same basis as the length of the academic year. The adjusted enrollment for the summer term was then added to the number of students in attendance during the regular term of school. For instance, if an institution reported a regular enrollment of 400 for 36 academic weeks of school and 600 students for twelve weeks of summer school, the latter figure was divided by three, since the sum-

<sup>1</sup>Frasier, G. W., and Whitney, F. L., "Determining Costs," Chapter IV. *Teachers College Finance*. (In process) 1929.

<sup>2</sup>Kalbach, L. A., *Data In Regard to State Teacher-Training Institutions*. United States Bureau of Education, Washington, D. C., January 2, 1929.

<sup>3</sup>Whitney, F. L., *The Length of Summer Sessions in Higher Institutions of Learning in the United States*. Study No. 28, Department of Educational Research, Colorado State Teachers College, Greeley, 1926.

mer session was one-third as long as the academic year. This 200 was then added to 400 to give a total enrollment of 600 for the entire year. By dividing the total amount of support provided the institution by this total enrollment figure, a student unit figure was derived. Like amounts were also obtained for moneys obtained from the state taxing unit and for the funds received from incidental sources.

### 1. THE TWO-YEAR NORMAL SCHOOLS

The student unit amounts for these three main categories of support, total income, revenue from state taxation, and incidental funds for the two-year normal schools, are shown in Table XXVIII in which column 1 indicates the amounts in intervals of \$20 and columns 2, 3, and 4 the distribution of frequencies for each of the three types. No data on enrollment were obtainable for twelve institutions. The distribution of student units of the total incomes of 40 schools is shown in column 2. One normal college received only about \$100 per capita, while four obtained amounts in excess of \$500. These large figures, ranging as high as \$950 in one institution, may be accounted for in the main by appropriations for mill levies made for capital outlay. In the instance where the student unit equaled \$950, the per capita amount levied for improvement of plant alone was \$415. Of the next highest amount (\$725), \$270 per student is attributable to this same type of apportionment of funds. The median figure of \$330 is at least an indication of the most typical amount of money provided the normal school, since the distribution is fairly even with a quartile spread of less than \$80.

It has been shown above that the state contributes about three-fourths of the support of all teacher-training institutions. This fact is further emphasized in column 3, which shows the distribution of the per capita revenue obtained through state taxation either by appropriation or by mill levy. Although one figure was increased to \$665 by money intended for expansion of the plant, the figures usually do not exceed \$400 by any great amount. One school receives less than \$80 for each student. The median (\$245) may be considered typi-



TABLE XXVIII

STUDENT UNIT AMOUNTS OF TOTAL INCOME, RESOURCES FROM STATE TAXING UNITS, AND INCIDENTAL SOURCES OF REVENUE IN 52 TWO-YEAR STATE PUBLIC NORMAL SCHOOLS IN NINETEEN STATES AND THE TERRITORY OF HAWAII, 1927-28

Intervals of unit amounts	Total income	State taxes	Incidental sources
1	2	3	4
\$520 and above	4 (a)	1 (b)	
500 - 519	1	0	
480 - 499	0	0	
460 - 479	2	0	
440 - 459	2	1	
420 - 439	0	1	
400 - 419	1	1	
380 - 399	2	2	
360 - 379	4	0	
340 - 359	3	1	
320 - 339	2	4	1
300 - 319	0	3	1
280 - 299	2	2	0
260 - 279	1	1	1
240 - 259	7	4	1
220 - 239	1	3	0
200 - 219	3	3	0
180 - 199	2	5	0
160 - 179	1	1	1
140 - 159	0	1	3
120 - 139	1	2	2
100 - 119	1	2	2
80 - 99	0	1	3
60 - 79	0	1	2
40 - 59	0	0	2
20 - 39	0	0	7
1 - 19	0	0	4
None	0	0	10
No data	12	12	12
Total	52	52	52
Q <sub>3</sub>	\$400.00	\$325.00	\$143.33
Median	330.00	245.00	80.00
Q <sub>1</sub>	242.86	188.00	30.00
Q	78.57	68.50	56.67

a. These amounts are \$560; \$590; \$725; \$950.

b. This is an amount of \$665.

cal, since the distribution appears to be fairly normal. The middle 50 per cent of cases vary about \$137.

The importance of student fees, dormitory and dining hall charges, and like assessments is again apparent in column 4 which distributes these amounts in terms of the money received from each student. They range from less than \$20,

reported in four instances, to over \$320 for one school. The distribution is skewed positively, four institutions receiving decidedly higher per capita incidental revenues than do the balance. The median of \$80 is based on 30 institutions which report some such revenue. This eliminates the 22 schools which either remit all such fees to the state treasurer or, in lieu of student assessments, require a promise that the individual will teach within the state for a specified time and thus presumably repay, in part at least, his obligation to the commonwealth.

Of the typical student unit amount of \$330, we may say, then, that a central figure of about \$245 comes from the state in 40 instances and for 30 schools at least, \$80 is a median amount collected from the student. This would leave a very small amount to be derived from any or all other sources. While these figures cannot be taken too literally, since they are based on different numbers of schools and since they are medians only, still they are significant as an indication of the true situation.

## 2. THE FOUR-YEAR TEACHERS COLLEGES

Data similar to those in the last section are presented for the four-year colleges in Table XXIX. A distribution of the student units of total income is shown in column 2. Six colleges receive such amounts in excess of \$500. These high figures may also be accounted for by added funds intended for capital outlay expenditures. The largest figure (\$784) contains a per capita amount of \$297 for improvements, leaving \$487 as a unit intended for usual maintenance. Two institutions have unit amounts of about \$150, while the median figure is \$280 with a quartile deviation of \$86. The comparable figures for the normal schools were \$330 and \$78.57. It is significant that the two-year institutions receive a higher median amount per student enrolled than do those offering four years of instruction. The former have smaller total enrollments, and this shows that the size of student body is a large factor in the unit cost of instruction. It is not likely that the two-year schools are offering a commensurably better type of preparation for prospective teachers.

TABLE XXIX

STUDENT UNIT AMOUNTS OF TOTAL INCOME, RESOURCES FROM STATE TAXING UNITS, AND INCIDENTAL SOURCES OF REVENUE IN 62 FOUR-YEAR STATE TEACHERS COLLEGES IN 29 STATES, 1927-28

Intervals of unit amounts	Total income	State taxes	Incidental sources
1	2	3	4
\$520 and above	4 (a)	2 (b)	
500 - 519	2	0	
480 - 499	1	1	
460 - 479	2	2	
440 - 459	0	0	
420 - 439	4	1	
400 - 419	1	0	
380 - 399	1	2	
360 - 379	2	1	
340 - 359	2	0	
320 - 339	2	3	
300 - 319	5	2	
280 - 299	3	3	
260 - 279	6	2	1
240 - 259	4	5	1
220 - 239	4	3	0
200 - 219	5	5	1
180 - 199	4	7	0
160 - 179	4	6	1
140 - 159	2	6	0
120 - 139	0	4	7
100 - 119	0	2	2
80 - 99	0	1	5
60 - 79	0	0	6
40 - 59	0	0	12
20 - 39	0	0	8
1 - 19	0	0	7
None	0	0	11
No data	4	4	
Total	62	62	62
Q <sub>3</sub>	\$390.00	\$296.67	\$102.50
Median	280.00	212.00	57.50
Q <sub>1</sub>	218.00	165.00	34.38
Q	86.00	65.84	34.06

a. These amounts are: \$550; \$580; \$610; \$784.

b. These amounts are \$550; \$575.

The importance of the state in the support of these colleges is shown in column 3. Two receive more than \$500 per student from this source. These amounts (\$550 and \$575) are again traceable to revenue intended for capital expansion. The median of \$212 is about four-fifths of the total income, as would be expected from Table VI. This figure is also considerably less than the comparable amount of \$245, which represents the central figure for the normal colleges.

Fifty-one colleges receive a median amount of \$57.50 from incidental funds. Comparison of this figure with the \$80 representing the typical two-year school, shows that the student attending the latter type of institution is assessed more heavily for his training. The student unit revenues from both the state and the individual are greater for the schools offering the shorter training period.

### 3. COMPARATIVE DATA

Comparison of the two preceding tables shows that the typical total annual income per student of the four-year college is \$280, while it rises to \$330 in the normal school. The median amount obtained by the former from the state is \$245, while it is \$212 for the latter. The central amounts of incidental revenues are \$80 and \$57.50 respectively for the two types of institutions.

One important generalization may be made from these figures. The ratio of the total incomes of the four and two-year schools is roughly seven to eight. The revenues from the state maintain this same approximate relationship. However, when the relationship of the revenues from the students is examined, a ratio of about seven to ten is seen to exist. This disparity may be accounted for in part by the fact that proportionately more two than four-year schools offer dining hall and dormitory privileges to the students. These amounts would, of course, affect the total incomes of the institutions also, but to a much smaller degree.

Phillips<sup>1</sup> reports per capita costs in teacher-training institutions for the year 1925-26, which may well be compared with the support unit figures of this study. The median maintenance figure in Phillips' investigation, based on the costs in 90 state teachers colleges, is \$269. It is significant to compare this with the \$280 representing the median student unit of support. The median unit cost for 93 normal colleges in 1925-26 was \$303. In 1927-28, the comparable unit of sup-

---

<sup>1</sup>Phillips, F. M., *Per Capita Costs in Teachers Colleges and State Normal Schools, 1925-26*. Statistical Circular No. 9, 1927. United States Bureau of Education, Washington, D. C., 1927.

port was \$330. Evidently, the cost of the professional training of teachers is rising, if cost and support figures covering a two-year period may be taken as indicative of the trend.

#### 4. BRIEF SUMMARY OF DATA

In this section, total incomes, revenues from the state as a taxing unit, and moneys received from student assessment sources have been reported in terms of student units for both the two and the four-year institutions. These data may be briefly summarized as follows:

- a. Student units were obtained by dividing the amount of income by the total enrollment in each institution. The enrollment figure equals the average enrollment for the academic year plus that fraction of the summer enrollment which is obtained by multiplying the summer figure by the ratio of the length of the summer to the academic term.
- b. In the two-year schools, the median student unit of total incomes is \$330, with a range from about \$100 to \$950. The high figures are partially caused by capital outlay revenues.
- c. The central tendency of the amounts received from state taxes is \$245, and the range is from about \$60 to \$665.
- d. Incidental sources yield a central figure of \$80 to this type of institution, ranging from four units less than \$20 to more than \$300 in one instance.
- e. The median student unit of total income in the four-year college is \$280 with amounts varying from about \$140 to one of \$784.
- f. The similar figure derived from state taxes is \$212. The units run as low as \$80 and as high as \$575.
- g. The students contribute incidental revenues ranging from a few dollars to as high as \$260 apiece. Such a large figure is largely due to dormitory and dining hall charges.
- h. Student units in the two-year normal schools are consistently higher than those in the four-year colleges. Total en-

rollment figures are larger for the latter type, and this accounts for a good share of the discrepancy.

- i. Data tend to show slightly higher student units of support for both two and four-year institutions than were the unit costs of these colleges as reported two years before.

## VI. GENERAL SUMMARY AND CONCLUSIONS

This report is the result of an attempt to secure specific information regarding the sources of income of the state teachers colleges and state normal schools in the United States. It is based on information received from 127 such colleges located in 39 states and the territory of Hawaii. Inasmuch as this is a sampling of nearly 70 per cent and includes at least one school from each of all except three states having such institutions, it is felt that this is at least indicative of practices and attitudes in state teachers colleges and state normal schools.

### 1. ESSENTIAL FACTS REVEALED BY THE INVESTIGATION

In general, then, the following may be taken as representative conditions throughout the United States in separate state teacher-training colleges:

- a. The annual incomes of the two-year normal schools range from \$25,000 to above \$500,000, with a middle figure of \$180,000 and a quartile spread (Q) of over \$50,000.
- b. The four-year teachers colleges have yearly revenues ranging from \$100,000 to about \$1,000,000, with a median of \$300,000 and a quartile (Q) of \$130,000.
- c. Tax moneys from state, local, and federal units provide about 75 per cent of all the financial resources of the normal schools, yielding a median amount of \$150,000, about one-seventh of which is devoted to improving the plant, while the balance maintains instruction.
- d. The four-year colleges receive about 80 per cent of all funds in this manner. This amounts to nearly \$250,000

in the typical institution, about one-fifth of which is used for development of the property.

- e. The mill levy is losing ground as a method of securing financial support from the state. It has been abandoned in four states since 1925, leaving only six states with this method of securing funds. However, one more state will have a ten-year continuing mill levy for capital outlay after October, 1929.
- f. In spite of this decline in practice, the mill tax continues to be more popular among administrators, usually being considered to be more dependable.
- g. There is an apparent lack of familiarity among teachers college administrators with regard to the details of sources of income.
- h. The federal government contributes nothing to normal schools and very small amounts to but seven four-year colleges.
- i. Incidental sources yield from 20 to 25 per cent of all revenues, contributing a slightly higher proportionate sum to most of the four-year colleges. In these institutions, the educational fees average 13 per cent of all revenue, while the non-educational charges average 8 per cent. For the two-year schools, these average 10 and 21 per cent respectively. The distributions yielding these figures are atypical.
- j. When original figures are utilized and arithmetical means computed, it is found that two-year and four-year teachers colleges and other institutions of higher learning receive about the same proportion of total income from the students, although the latter type of college may receive a slightly smaller percentage.
- k. Interest, extension courses, sale of property, gifts, insurance, and fines or forfeitures supply relatively small amounts and proportions, usually averaging about 2 per cent of the total income.

- l. Permanently invested funds contribute a median amount of only \$3,300 to each of 28 normal schools which reported having such incomes. Governmental land grants are of slight importance to only sixteen such units.
- m. Fifteen four-year schools profit in the same manner with an average of \$9,500 to each.
- n. The administrators of teachers colleges have little voice in fixing the amounts of student fees. In the majority of cases, their jurisdiction in arranging the details of assigning income to the various categories of expenditure within the institution is also seriously curtailed.
- o. The median student unit amount of total income is \$330 in the two-year and \$280 in the four-year institutions. State taxes yield central figures of \$245 and \$212 for the two types of schools, while \$80 and \$57.50 are the typical incidental revenues. The support per student is greater in the former than in the latter.
- p. Comparison of these figures with unit costs reported two years earlier indicate that the trend is definitely upward with the normal schools having proportionately higher figures in both reports.

## 2. CONTRIBUTIONS OF THE INVESTIGATION

The individual responses made to the question lists used in this investigation reveal a startling lack of unanimity of opinion and practices among teachers college administrators. It is apparent that there are a few who still take gratefully without question whatever is handed them in the way of money. Progress must be very limited under such conditions. This study presents a summary of the essential support factors underlying a financial program. Perusal of these pages may acquaint the reader with a new viewpoint, whether or not the figures are applicable or useful to him in his own situation. Finance administration in teacher training is at once an art and a business for which thorough preparation is necessary. By comparing usual practices with those in a specific situation, new practices and methods may be suggested for trial.



Little information concerning the amount of support which the federal government furnishes for teacher-training has been collected up to this time. Similarly, the importance of permanently invested money and revenue from land funds has not been studied adequately. The sources are analyzed here as minutely as is possible without recourse to the records of each institution.

The present trends in methods of securing support for teacher training are very significant. Such developments have been revealed by comparing the figures of this investigation with comparable statistics wherever available.

In fact, it is believed that the essential contribution of a fact-finding study such as this is to be found in the suggestion for more scientific thinking in finance administration among teachers college authorities. Finance research, if engaged in, will give a more adequate background of vicarious experience so that policy making among state teacher-training enterprises and within the single institution may be more often on a level of careful reflective thinking, not a matter of hurried expediency to meet an unforeseen emergency.

### 3. RECOMMENDATIONS AND FURTHER RESEARCH NEEDED

This investigation reveals a wide diversity of methods of securing fiscal support for state teachers colleges and state normal schools, not only among states but even among the several institutions within a commonwealth. Of course, in the final analysis, tax moneys constitute the basic source of the financial support of teacher-training. There is no hidden vein which may be tapped and counted on to pour forth revenue for this phase of public education. However, there probably are new and better forms of taxation which would yield more satisfactory and dependable funds. Personal income, business, inheritance, severance, and other forms of taxation should be experimentally utilized. As in all matters of finance, research must determine the best procedure. It is the opinion of the writers that many experimental comparisons should be made and much of the prevailing unsupported opinion either refuted or proved sound.

There is a need also for further research in this matter from the point of view of unit costs. In addition to the enrollment denominator in such computations, other units should be used. Data among groups of similar institutions will in this manner be made most comparable and most useful to aid the thinking of legislators and executives in policy making and in administration.

Under present methods of support, incomes must vary with the valuation of property which now usually supplies the tax basis. The questionnaire in Appendix A contained an inquiry into the relationship of assessed valuation and real value of property. It is a well known fact that practices in this respect are not consistent in all states. If it were known just what these practices are, the condition of the finances of the public institutions would be more understandable. From the few responses which were made to this question, it must be inferred that many administrators are either indifferent to this phase of the question, or, more probably, are simply not competent to fill in such items of information. This implies two needs. First, a more thorough knowledge of all of the ramifications of financial support of this type of educational institutions is needed. In the second place, any further research along these lines should embody specific attempts to secure detailed information in this respect. Perhaps the state treasurer's office could yield the needed facts, if other sources failed.

In general then, the most noticeable need revealed by this investigation appears to be that for a more thorough knowledge of finance as applied to education and especially to institutions of higher learning for teacher training. A second need is for further research, both experimental and factual, to determine more objectively the most efficient and effective method of fiscal support for each situation.

APPENDIX A  
COPY OF QUESTIONARY  
COLORADO STATE TEACHERS COLLEGE  
DEPARTMENT OF EDUCATIONAL RESEARCH  
FREDERICK L. WHITNEY, Director  
GREELEY, COLORADO

December 12, 1928.

Dear President:

Four years ago our Department of Educational Research collected the facts on the mill tax method of support for teacher-training institutions (Whitney, F. L. "The Mill Tax Method of Support for State Teachers Colleges and State Normal Schools." *Educational Administration and Supervision*, Vol. II, pp. 473-480 [October, 1925.]) and made a detailed report at the Cincinnati meeting of the American Association of Teachers Colleges.

The information gathered was of vital importance in every state in view of the problem of adequate support which is ever present.

In view of the fact that this is another "legislative" year, it is logical to repeat the study at this time. It is thought that it will be more useful, if all sources of income are included in the investigation; and the pages following provide for a report on that basis.

Note that actual amounts of funds are asked for. The first item, the "GRAND TOTAL," is the total income of your institution from all sources during the fiscal year 1927-28.

As soon as a good proportion of all state teachers colleges and state normal schools have sent their data, report will be made in tabular form to all listed in the *Educational Directory* of the United States Bureau of Education.

Very truly yours,

PHILIP M. CONDIT,  
Research Assistant.

SOURCES OF INCOME FOR STATE TEACHERS COLLEGES AND  
STATE NORMAL SCHOOLS

FACTS FOR THE FISCAL YEAR OF 1927-28

PART ONE

Items  1	Amounts		Proportion of total income  4
	Detailed 2	Total 3	
GRAND TOTAL (COLUMNS 2 AND 3 SHOULD TOTAL ALIKE) .....	\$.....	\$.....	100%
<b>I. INCOME FROM TAXATION</b> .....		\$.....	.....%
1. Appropriations			
a. General (usual maintenance) .....	\$.....		
b. Special (specify below)			
(1) Buildings.....	\$.....		
(2) .....	\$.....		
(3) .....	\$.....		
2. Mill Levy			
a. General (usual maintenance).....	\$.....		
b. Special (specify below)			
(1) Buildings.....	\$.....		
(2) .....	\$.....		
(3) .....	\$.....		
3. Receipts From Federal Sources			
a. Smith-Hughes funds.....	\$.....		
b. Vocational rehabilitation.....	\$.....		
c. Others (specify below)			
(1) .....	\$.....		
(2) .....	\$.....		
(3) .....	\$.....		
4. Receipts From Local Taxing Unit			
a. ....	\$.....		
5. Receipts From Special Sales Tax			
6. Receipts From Any Other Tax Sources			
a. ....	\$.....		
b. ....	\$.....		
c. ....	\$.....		
<b>II. INCOME FROM PERMANENTLY INVESTED FUNDS</b> .....		\$.....	.....%
1. Federal Land Grants.....	\$.....		
2. State Invested Funds.....	\$.....		
3. National Forest Funds.....	\$.....		
4. Swamp Land Funds.....	\$.....		
5. Salt Land Funds.....	\$.....		
6. Internal Improvement Land Funds.....	\$.....		
7. Others (specify below)			
a. ....	\$.....		
b. ....	\$.....		
c. ....	\$.....		

Items  1	Amounts		Proportion of total income  4
	Detailed 2	Total 3	
<b>III. INCOME FROM INCIDENTAL SOURCES</b> .....		\$.....	.....%
1. Scholarships.....	\$.....		
2. Fines and Forfeitures.....	\$.....		
3. Insurance.....	\$.....		
4. Sale of Property.....	\$.....		
5. Gifts.....	\$.....		
6. Endowments (not including student loans).....	\$.....		
7. Extension Service.....	\$.....		
8. Student Fees (exclusive of non-educational fees).....	\$.....		
a. Tuition.....	\$.....		
(1) Resident \$.....			
(2) Non-resident \$.....			
b. Registration.....	\$.....		
c. Matriculation.....	\$.....		
d. Incidental or Contingent.....	\$.....		
(1) Resident \$.....			
(2) Non-resident \$.....			
e. Library.....	\$.....		
f. Physical Education or Gymnasium.....	\$.....		
g. Medical Infirmary.....	\$.....		
h. Student Activity (not including III, 9, c).....	\$.....		
i. Diploma or Graduation.....	\$.....		
j. Music.....	\$.....		
k. Laboratory.....	\$.....		
(1) General \$.....			
(2) Others (specify below).....	\$.....		
(a)..... \$.....			
(b)..... \$.....			
(c)..... \$.....			
l. Others Not Included About (specify below).....	\$.....		
(1)..... \$.....			
(2)..... \$.....			
(3)..... \$.....			
9. Non-educational Fees.....	\$.....		
a. Dormitories and Dining Halls.....	\$.....		
b. Printing Department.....	\$.....		
c. Athletics (not included under III, 8, h).....	\$.....		
d. Trust Funds (not included under III, 6).....	\$.....		
e. Others (specify below).....	\$.....		
(1)..... \$.....			
(2)..... \$.....			
(3)..... \$.....			
<b>IV. INCOME FROM ANY OTHER SOURCES NOT MENTIONED ABOVE. (Specify below)</b> .....		\$.....	.....%
1. ....	\$.....		
2. ....	\$.....		
3. ....	\$.....		

PART TWO

SUPPLEMENTARY INFORMATION NECESSARY FOR THE INTERPRETATION OF ABOVE DATA

- I. TOTAL ENROLLMENT, 1927-28.....  
II. THE ASSESSED VALUATION OF PROPERTY IS WHAT PER CENT OF THE REAL VALUE?  
.....per cent.

III. APPROPRIATIONS:

1. Time (annual, biennial, permanent, etc.).....

IV. MILL LEVY:

1. Time (continuing, quadrennial, etc.).....  
2. How fixed?.....  
2. What mill tax levy would be required on the assessed valuation of the state to provide the total income your school used in 1927-1928?

4. Please give your mill tax levy and assessed valuation for the following years:

a. Mill levy for: (e.g., 18 mills)		b. Assessed valuation of the state for the same years	
1928-29	..... mills	\$	.....
1927-28	..... mills	\$	.....
1926-27	..... mills	\$	.....
1925-26	..... mills	\$	.....
1924-25	..... mills	\$	.....

V. WHAT METHOD OF SUPPORT DO YOU PREFER? (MILL LEVY OR APPROPRIATION)

Please give reasons.

.....  
.....  
.....  
.....

VI. TO WHAT EXTENT, IF AT ALL, DOES YOUR LEGISLATURE PRESCRIBE THE DISTRIBUTION OF APPROPRIATIONS AMONG THE DIFFERENT ACTIVITIES AND DEPARTMENTS OF YOUR INSTITUTION?

.....  
.....  
.....  
.....

VII. WHO FIXES THE AMOUNT OF STUDENT FEES? (state law, trustees, president, etc.)

.....  
.....

COLORADO STATE TEACHERS COLLEGE  
BULLETIN

— 0 —  
*Mountain Classes*  
in  
*Natural Science*



*Students at the "Top of the World"*

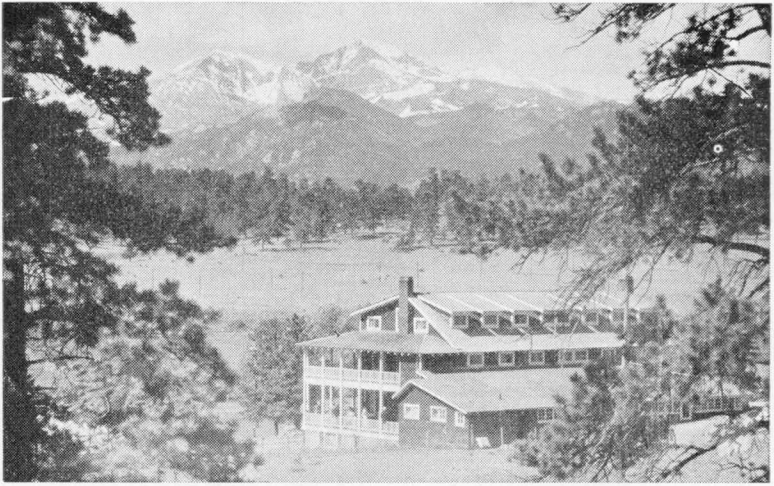
*Estes Park ~ 1930*

SERIES XXIX

SEPTEMBER

NUMBER 6

Published monthly by Colorado State Teachers College, Greeley, Colorado.  
Entered as Second Class Matter at the Postoffice at Greeley, Colorado,  
under the Act of August 24, 1912.



*"Olympus Inn—Headquarters for mountain classes.  
Good food and good beds."*

### THE QUESTION

How would you like to go to summer school and still have a complete change? Would you like mountain environment, beautiful scenery, invigorating atmosphere, bus rides, hikes, healthful exercise every day? Would you like college credit? And would you like to have all this at the very moderate cost of less than one hundred fifty dollars, exclusive of transportation from your home to Greeley, Colorado?

This folder is intended to show you how you may have such an outing during your summer vacation and at the same time receive college credit for the good time you are experiencing.

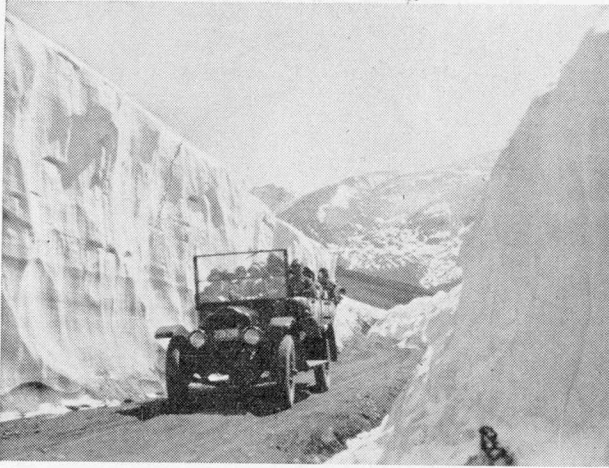
### THE PLAN

Two mountain classes offering courses in Natural Sciences will be conducted in the Rocky Mountain National Park during each half of the summer school of Colorado State Teachers College. Students wishing to enroll for these courses will come first to Greeley, register, pay fees, and spend three days on the campus. These are busy days, each packed full of interesting, worthwhile study. The next 29 days are spent in the mountains. Headquarters for the classes will be at Camp Olympus. This is a fine mountain lodge with excellent beds, good food and ideal study conditions.

Each day includes some educational activity, but the study is out-of-doors among the rocks and trees and flowers. It consists of observing and interpreting nature rather than poring over books. The fact that the work is interesting and is done with pleasure rather than with annoyance does not detract from its educational value. It is what Thorndike would call "Whole-hearted purposeful activity with satisfaction at the end."

Three days in the week, students take bus trips into the Rocky Mountain National Park or adjacent territory. Many of these trips are far up into the mountains above the timber line, over Alpine meadows and across snow fields that endure even in August. They see all that is of interest in this region—see it accompanied by an instructor and guide who has spent many seasons in the Rocky Mountain National Park and who has had years of experience as a science teacher in college classrooms.





*Through a Canyon of Snow and Ice in July.  
Students of Colorado State Teachers  
College near Fall River Pass*

### REGISTRATION

Students who wish to enroll for mountain classes for the first half of summer school will register Monday, June 16.

Students enrolling for the mountain classes conducted during the second half will register Monday, July 21.

These dates are arranged to permit students to enroll for mountain classes either half and campus classes the other half of the summer school. Students who wish to attend only five weeks may enroll for mountain classes either half.

### THE COST

Tuition fees .....	\$16.00	
Laboratory fees \$2.00 per course .....	4.00	
Board and Lodging three days in Greeley .....	5.50	
Auto Bus Round Trip Greeley to Estes Park .....	5.00	
Board and Lodging 29 days at Olympus Inn .....	72.00	
Bus trips in Estes Park and vicinity .....	30.00	\$132.50
Longs Peak Trip, Extra and Optional .....	4.50	
Fees for non-residents of Colorado .....	2.50	7.00
<b>TOTAL</b> .....		<b>\$139.50</b>

### THE COURSES

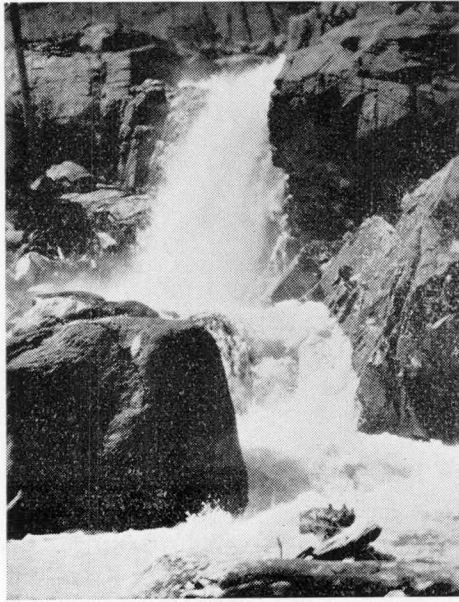
Students may complete two courses (8 quarter-hours) during either half of the summer quarter.

#### FIRST HALF SUMMER QUARTER, JUNE 16 TO JULY 19, 1930

ZOOLOGY 3. Bird Study. Mr. Shirling, Instructor.

Four quarter-hours credit.

Field work with birds of the Colorado mountains, consisting of identification, study of habits and habitat, nesting, food, etc. Field work will be supplemented with a lecture period each evening. Lectures will prepare the way for field work and will also emphasize the characteristics of the different bird families and groups.



*One of the Many Fine Views Seen Along  
the Trail to Loch Vale*

**BOTANY 104. Mountain Flora. Mr. Shirling, Instructor.**

Four quarter-hours credit.

In this course emphasis will be placed on mountain flora. Study periods will be spent in the field with flowers in their natural environment, determining their family characteristics and classification by means of an analytical key. Morning lectures will give a foundation for the field work and assist in the interpretation of various problems that arise. Great opportunity is given here for comparison of vegetation in the different climatic zones of



*A Line-up on the Snow at Milner Pass—  
Photo Taken During Early Part of July*



*We Get Close to the Birds—  
Warbling Vireo and Nestlings*

northern United States and Canada to far polar regions by means of field trips into the alpine regions.

**SECOND HALF SUMMER QUARTER, JULY 21 TO AUGUST 23, 1930**

**ELEMENTARY SCIENCE I. Nature Study. Mr. Shirling, Instructor.**

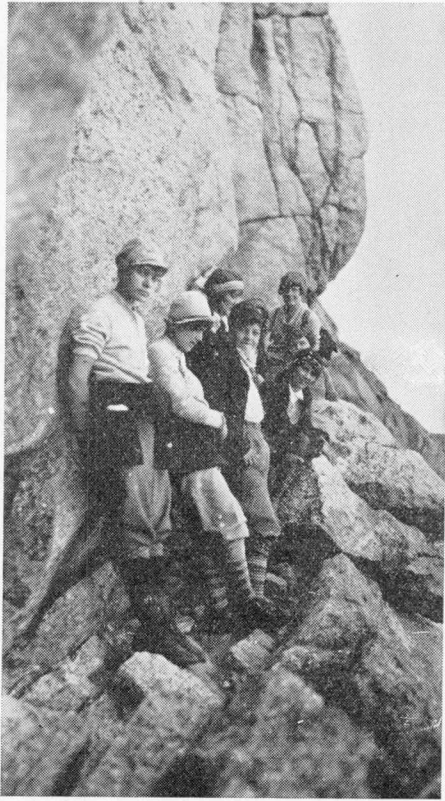
Four quarter-hours credit.

This course will consist of lectures and field work. The daily evening lecture periods will include discussions of the various phases of nature study as birds, flowers, animals, etc. Some attention will also be given to procedures in teaching nature material.

The daily field work will supplement the lectures, and will consist of observations and reports on various forms of plant and animal life appropriate for study in the environment of Estes Park and the Rocky Mountain National Park. Since opportunities are so favorable, some attention will also be given to the geological features along the way.



*Looking at the "Never Summer" Range. Student Group  
from Colorado State Teachers College*



*The Long Trail is Narrow in Places;  
Perfectly Safe—Even if it is a Thousand  
Feet to the Bottom*

This field work will give rare opportunity for becoming familiar with mountain conditions. Three motor-bus trips a week will enable the class to see all the finer parts of the Rocky Mountain National Park. The three other days will be spent in the immediate neighborhood of Camp Olympus, Estes Park, which will be the headquarters of the class.

**BOTANY 4. Forestry. Mr. Shirling, Instructor.**

Four quarter-hours credit.

The forests of the mountain slopes furnish a good laboratory. The study periods will be spent in the field making observations and reports on various problems pertaining to trees and forestry. Field trips will be made in conjunction with the course in Elementary Science, the time being divided between nature study and forestry.

The daily lecture period will be in the morning and will prepare the way for the field work. In these lectures various problems of forestry that are not available for direct, local observation will also be discussed. The entire course will be planned and presented from the popular rather than the technical standpoint, and the subject matter can be applied to teaching in the public schools.



*Columbines, Colorado's State Flower, in Their  
Native Mountain Wilds*

### EQUIPMENT

1. Take no trunk—nothing but hand baggage.
2. Do not try to take too many clothes. We are gone only five weeks and laundry is available.
3. The following is a fair sample of equipment:
  - a. A good hiking suit of knickers and blouse, or knickers, blouse and sweater.
  - b. Some dresses as a change from hiking clothes for afternoon wear.
  - c. One good dress.
  - d. One medium weight wrap to wear over hiking clothes on our bus trips and on cold mornings.
  - e. RUBBER SOLED (*Composition*) SHOES: This is important. They are "non-skid." Get boots if you like, but shoes with tops barely above the ankle are lighter and just as good.
  - f. Heavy wool hose. This also is important.
  - g. Some sort of light weight knapsack or bag to hang over your shoulder is convenient.

NOTE: Do not worry about the hikes being too strenuous. They are carefully tempered to your ability. Teachers in ordinary good health will have no difficulty in making all of the trips.

If you wish to enroll for either term or if you wish further information, please communicate with A. E. Shirling, Teachers College, Kansas City, Missouri, who serves as an instructor and guide to student groups at Camp Olympus, or you may make reservations with the Extension Department, State Teachers College, Greeley, Colorado. Enrollment in mountain classes is limited. Reserve your place now by sending five dollars to apply on your tuition to the Extension Department, Colorado State Teachers College, Greeley, Colorado.









COLORADO STATE TEACHERS COLLEGE

BULLETIN



*Art*

*By Special Instructors*



Courses Particularly Prepared to Meet the Desires  
of Teachers in Service



SUMMER SCHOOL

~1930~

SERIES XXIX

OCTOBER

NUMBER 7

Published monthly by Colorado State Teachers College, Greeley, Colorado.  
Entered as Second Class Matter at the Postoffice at Greeley, Colorado,  
under the Act of August 24, 1912.

# Special Courses in Art

## For the Public School Teacher and Supervisor

---

**I**N ORGANIZING the courses to be offered during the summer quarter, the Art Department at Colorado State Teachers College has made especial preparation to meet the desires and the needs of the teachers of art and art supervisors in the public schools.

In addition to the regular faculty of the Art Department, three art teachers of outstanding ability have been added to the staff for the summer quarter, 1930, as follows:

Mr. Marques E. Reitzel—Professor of fine arts at Rockford College and director of the Rockford Art Association.

Mr. Reitzel has exhibited several times in the Chicago galleries and elsewhere, winning prizes and favorable notice on many occasions.

His work is a personal matter. He paints in a strictly independent way. Mr. Reitzel sees the world without shadows. Each feature of a landscape has its own definite outline in the eyes of Mr. Reitzel.

The Chicago Tribune in a recent issue commenting on an exhibit by Mr. Reitzel, says:

“Reitzel has always been remarkable for the cheerful quality of his color. His paintings possess enormous enthusiasm and swing. They take you quivering into a realm of adventure with keen relish in the wind and a biting edge to the sun. His color is

resilient and penetrating and vital. His sense of color and the feeling that permeates his color has done the painter good service in his approach to the West. His paintings carry the message of adventure and romance, caught from those high tops and green pines and blue waters, to his audience.”

Mr. Reitzel is a specialist in oil and water color painting and in the art of the figure. He will also teach color theory and freehand drawing.



Mr. Marques E. Reitzel

Miss Louise Naber—Supervisor of Art in the Public Schools of Phoenix, Arizona.

Miss Naber will conduct classes in Primary Methods and Design. Her special courses will be for

#### SUPERVISORS AND TEACHERS OF ART EDUCATION

Miss Naber is regarded as one of the best supervisors of art in the United States.

Miss Myra Thomas—Supervisor of Art in the Public Schools of Ault, Colo.

Miss Thomas will teach during the first half of the summer quarter. She will have special classes in



Miss Louise Naber

#### ETCHING AND PRINT MAKING WATER COLOR PAINTING ADVANCED ART STRUCTURE

Miss Thomas has studied art with John Sloane, George Bellows, and Randall Darcy. She has also been a student at the Art Students League in New York City. She is a graduate of the Art Institute of Chicago.

Other courses to be offered in the Art Department during the Summer Quarter, 1930, and the instructors are

POTTERY—Miss Georgia Ethel Moore

LETTERING—Miss Moore

COMPOSITION—Miss Grace M. Baker

CONSTRUCTIVE DESIGN—Miss Alice Ogle

ART METHODS FOR INTERMEDIATE  
AND JUNIOR HIGH SCHOOLS—Miss Ogle

INDUSTRIAL ARTS METHODS FOR INTERMEDIATE  
AND JUNIOR HIGH SCHOOLS—Miss Moore

#### FIRST HALF OF THE SUMMER SCHOOL BEGINS JUNE 14, ENDS JULY 19—SECOND HALF BEGINS JULY 21, ENDS AUGUST 23

For Year Book of the College or specific information concerning the work offered in any of the departments, write to the President, George Willard Frasier, Greeley, Colorado.



COLORADO STATE TEACHERS COLLEGE BULLETIN

Short Course  
*for*  
Custodians, Janitors  
and Engineers

A short course for men who  
want to become better care-  
takers of Public Buildings.

---

June 9-14, 1930  
Greeley, Colorado

---

---

SERIES XXIX

NOVEMBER, 1929

NUMBER 8

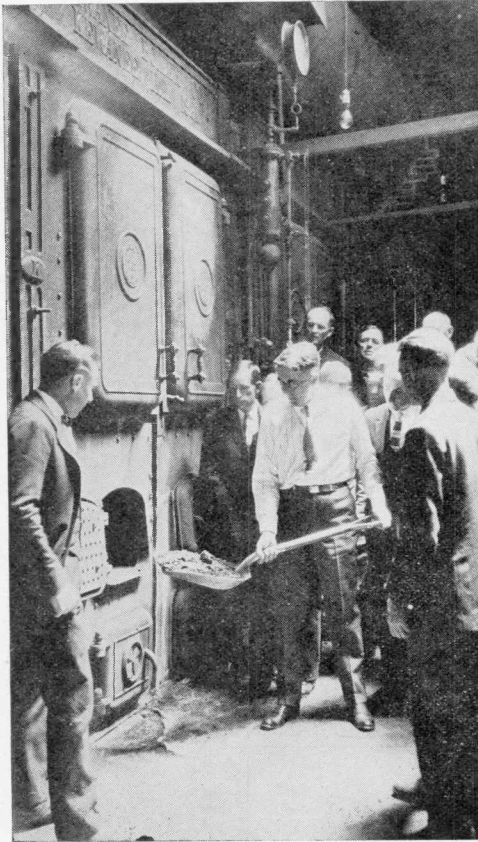
---

Published Monthly by Colorado State Teachers College, Greeley, Colorado.  
Entered as second class matter at the Postoffice at Greeley, Colorado, under  
the Act of August 24, 1912.

## CUSTODIANS MUST BE EQUIPPED

Demand for competent custodians of public buildings is greater today than it ever has been before, and in addition, owners of buildings—both private and public—are requiring that the custodians be more than just janitors. Each passing year sees the requirements in men holding positions of caretakers, custodians, and engineers more and more stringent.

It is to meet these requirements that Colorado State Teachers College is conducting its Short Course for Custodians, Janitors, and Engineers.



A DEMONSTRATION IN FIRING

For the sixth successive year this college has conducted such a school, and each succeeding year demonstrates not only the need of the type of instruction as given the students, but the advantages and widespread results.

The influence of this unique school—planned particularly for men who do the actual janitorial work in the public schools—has spread over such a large area and aroused so much favorable attention that arrangements have been made now to enroll the custodians and engineers of all public buildings. Since the organization and development of this school, inquiries have been received from the owners and agents of a number of larger corporations and office buildings, and the administration has deemed it not only advisable but an obligation to open the classes to all of

those persons entrusted with the care of buildings.

During the past year the heads of several institutions of higher learning and the superintendents of buildings and grounds in colleges and universities have sought information concerning the school to the end that one or more of their custodians might attend the classes. The enrollment for 1929 was as follows: Colorado 66, Georgia 1, Idaho 1, Kansas 5, Nebraska 7, New Mexico 1, Utah 1, Wyoming 5.

## SCHOOL BOARDS ACT

Results following the attendance of custodians at the special school in Greeley have been such as to induce school boards in a number of communities to insist that their custodians return for further study, while still others, having evidence of the effect of the short course on the school plants, have voted to pay the expenses of their custodians for a week at the college.

Colorado's school buildings and grounds have shown extensive improvement since the establishment of this school for custodians. Classrooms, halls, blackboards and the premises in general are cleaner and in better condition than they have ever been before. Visitors to schools have freely commented on the improved conditions.

Those custodians who have attended the classes have gone home enthusiastic about their jobs. They themselves have declared that they view their jobs in a different light.

### SOME THINGS CUSTODIANS SHOULD KNOW

They should know how to allay dust and disease germs—not stir them up—

They should know how to repair furniture—

They should know how to ventilate a building—

They should know how to care for school grounds—

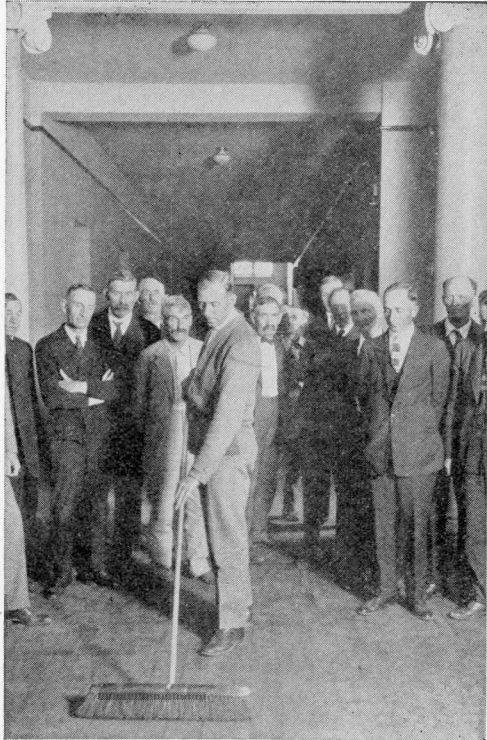
They should know how to oil floors—

They should know how to clean blackboards—

They should know how to care for toilets and rest rooms—to the end that the school building is a healthy place for children to spend most of their time in.

They should know how to fire a furnace or stoke a boiler—not simply shovel coal. Many school districts have spent hundreds of thousands of dollars for coal that produced no heat, because the custodian didn't know how to handle the heating plant.

They should know how to get along with pupils and teachers.



SHOWING PROPER WAY OF USING  
FLOOR BRUSH

## INFORMATION FOR SCHOOL BOARDS

Many custodians do not have an adequate notion of what their job implies.

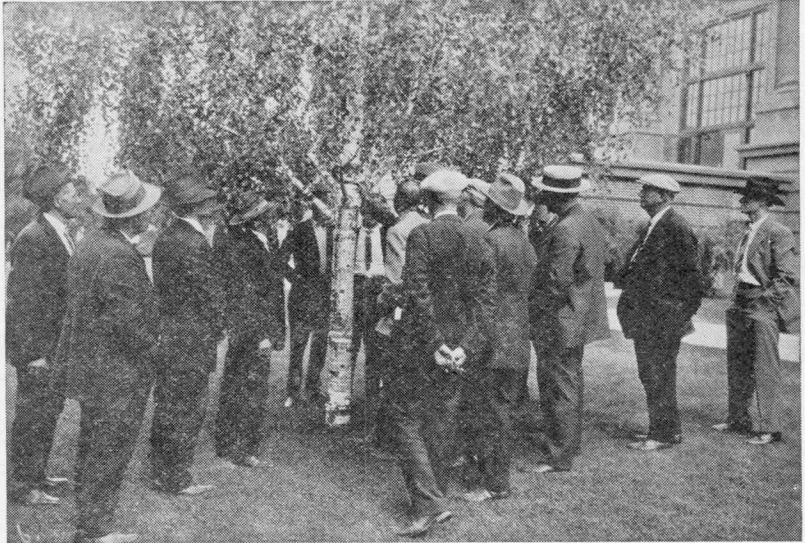
Among custodians of approximately the same degree of willingness to serve, some render an efficient service while others are near failures. Training will improve the methods of your inefficient but willing custodian. Contact with other competent custodians and opportunities to visit such janitors in their own schools where a high class service is being rendered will inspire your janitor to more efficient service.

Ideals of better service will be emphasized.

How to economize time and effort and at the same time improve the quality of work will be demonstrated.

Your custodian will see the best method yet developed for washing blackboards, scrubbing floors, repairing certain fixtures, etc.

Your custodian will be taken to the furnace room and there shown how to fire, how to regulate drafts, etc., so that he may save to your community many times the cost of sending him to this short course.



A LESSON IN CARE OF TREES

Sweeping compounds, brooms, brushes, oils, and other janitorial supplies will be exhibited at the school. Instructors will show how and under what conditions to use various materials and tools.

Moving pictures will depict the best methods.

Your janitors will visit school buildings in operation that are being cared for in the most scientific and economical manner.

## INFORMATION FOR CUSTODIANS

You will see how other custodians do their jobs.

Custodians from different parts of the country will be telling how they do their work.



You will be shown easier and better ways of handling your work.  
Your job will become easier because of improved methods.  
You will receive a certificate showing that you have attended a school where your problems have been intelligently studied.  
You will be in a position to render more efficient service.  
There will be moving pictures of how others are doing their work.  
A tourist camp will be made free to you if you want to drive in your own car.

You will enjoy going to school again. You will be guests of the Colorado State Teachers College. There'll be horseshoe tournaments, a picnic, and a big banquet

Business men have conventions, farmers have institutes, teachers have summer schools—

AND NOW, A WEEK'S CONVENTION FOR CUSTODIANS, JANITORS AND ENGINEERS.



DEMONSTRATING EQUIPMENT

## OFFICERS OF ADMINISTRATION

GEORGE WILLARD FRASIER, Ph.D., LL.D., President of the College.

ROBERT H. MORRISON, A.B., A.M., Head of College Extension Department, Colorado State Teachers College, Director.

## FACULTY

O. L. TROXEL, Professor of School Administration, Colorado State Teachers College, Assistant to the Director.

JAMES J. BALL, Assistant Superintendent in Charge of Business Affairs, Denver Public Schools—Lectures and Demonstrations.

R. G. DEMPSEY, Superintendent of Buildings and Grounds, Colorado State Teachers College—Instructor in Maintenance of Buildings and Grounds.

L. C. HELM, Principal Janitor-Engineer Training School, Minneapolis Public Schools—Instruction in Sanitation and Housekeeping.

JOHN M. KINGSTON, Supervisor of Custodians, Denver Public Schools, Instruction in Heating and Ventilation.

## THE COURSE OF STUDY

The course of study is planned to require attendance at two short courses in order to complete the lessons. In addition to the general lectures and demonstrations the men attending for the first time will study fifteen topics as follows:

### HEATING AND VENTILATION

- (1) Coal and combustion.
- (2) Furnaces and firing methods.
- (3) Heating systems.
- (4) Heating systems (*continued*)
- (5) Laying up boilers and mechanical equipment.

### SANITATION AND HOUSEKEEPING

- (1) Sanitation tools, their use and care.
- (2) Cleaning materials, classification and uses.
- (3) Cleaning and preserving floors.
- (4) Cleaning, dusting and polishing furniture.
- (5) Cleaning blackboards, erasers, walls and woodwork.

### MAINTENANCE OF BUILDINGS AND GROUNDS

- (1) Planning school grounds.
- (2) The selection, use and care of tools for maintaining grounds.
- (3) The selection and planting of shrubs, trees and flowers.
- (4) Seeding new lawns and the use of fertilizers.
- (5) Care and irrigation of lawns, flowers and shrubs.

In addition to the general lectures and demonstrations, men who have previously attended the short course will study fifteen topics as follows:

### HEATING AND VENTILATION

- (1) Preparing a heating plant for operation.
- (2) Heating plant auxiliaries.
- (3) Heat regulation and equipment.
- (4) Humidity.
- (5) Ventilation systems.

### SANITATION AND HOUSEKEEPING

- (1) Cleaning vitreous china, metal and glass.
- (2) Care of toilet rooms and fixtures.
- (3) General vacation cleaning.
- (4) Job analysis and time schedule.
- (5) Determination of man power and salary schedules.

### MAINTENANCE OF BUILDINGS AND GROUNDS

- (1) Selection, use and care of tools for maintaining school buildings.
- (2) Operating and repairing electrical equipment.
- (3) Operating and repairing plumbing equipment.
- (4) Repairing door checks, locks and windows.
- (5) Plaster patching, painting and varnishing.

## GENERAL INFORMATION

Time—ONE WEEK.

Date—JUNE 9-14, 1930.

Begins—MONDAY MORNING, 8:00 A. M.

Closes—SATURDAY NOON.

Place—CAMPUS, COLORADO STATE TEACHERS COLLEGE, GREELEY, COLORADO.

Cost—TUITION FEE, \$10.00 per individual (Paid by three-fourths of boards last year).

BOARD ABOUT \$1.00 per day (All who prefer may eat at one central restaurant).

ROOM ABOUT 75 cents per day (Upon arrival in Greeley men should call Mr. Morrison, 2029J).

City Park Tourist Camp—FREE TO MEMBERS OF THE SCHOOL (A beautiful spot to bring the family for vacation. Cooking arrangements provided).

Entertainment—"PARK," "REX," and "STERLING," the three Greeley Theaters, will have excellent shows.

PICNIC FOR ALL MEMBERS—Students and Instructors.

HORSESHOE TOURNAMENTS.

ANNUAL BANQUET.



IN THE LECTURE ROOM

The work—FROM 8:00 a. m. to 5:00 p. m., daily.

DEMONSTRATIONS OF: Firing, Control of Heat, Tempering Air, Humidifying Air, etc., Scrubbing, Mopping, Oiling Floors, Washing Windows, Cleaning Erasers and Blackboards, Cleaning Toilets, Building and Banking Fires, Reading Gauges, Making Records and Reports, Making Repairs and Doing Odd Jobs.

GENERAL LECTURES.

1. June 10, 8:25 a. m.—L. C. HELM  
"The School Custodian and His Job"

2. June 11, 8:25 a. m.—JAMES J. BALL.  
"The Relation of the Custodian to the Superintendent,  
Principal and School Board"
3. June 12, 8:25 a. m.—JOHN M. KINGSTON  
"The School Custodian Facing Emergencies"
4. June 13, 8:25 a. m.—ROBERT H. MORRISON  
"The New Community"
5. June 14, 8:25 a. m.—JAMES H. LONGSHORE  
"Treatment and Maintenance of Floors"

**EXHIBITS**—Leading commercial houses will be invited to exhibit a full line of janitorial materials and supplies. (These are only for examination by the janitors; there will be no selling by representatives of these firms.) Uses of various materials and supplies will be explained.

**QUESTIONS AND ANSWERS**—All members of the school are constantly urged to ask questions. Discussion resulting from janitors' questions was one of the best features of last year's school. Question Hour every day.

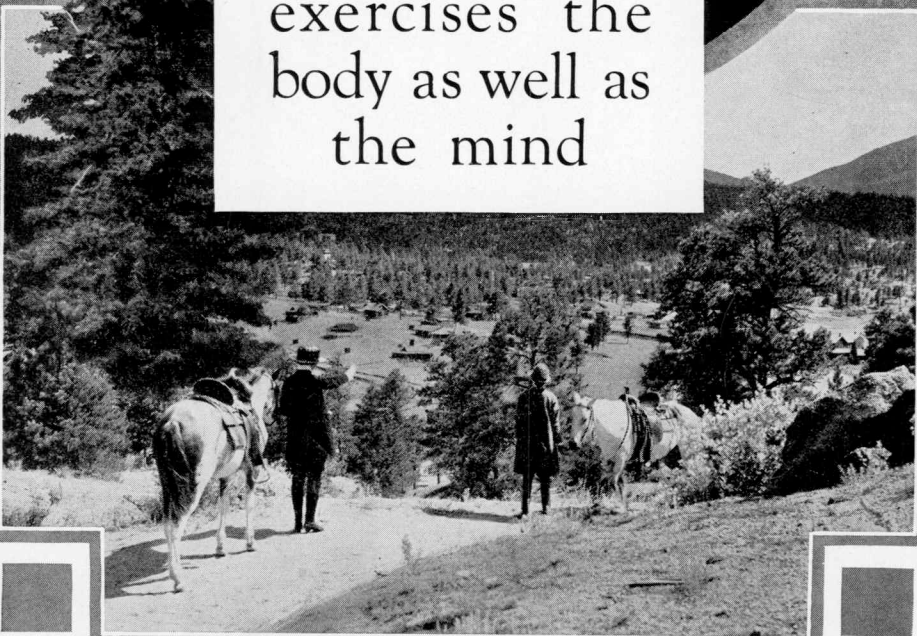
**MOVING PICTURES**—These include pictures of methods of fire prevention, handling of furniture, temperature control, cleaning, etc.

**Sympathetic Spirit**—Janitors in attendance from year to year attest to the fact that these problems are approached in a sympathetic spirit.

**How to Enroll:** Write **ROBERT H. MORRISON, Colorado State Teachers College, Greeley, Colorado.**

# Student Outdoor Life

exercises the  
body as well as  
the mind



**SERIES XXIX**

**JANUARY**

**NUMBER 10**

Published monthly by Colorado State Teachers College, Greeley, Colorado. Entered as second class matter at the Postoffice at Greeley, Colorado, under Act of August 24, 1912.

## Recreational and Scenic Trips for Students

Prospective students at Colorado State Teachers College will find set forth herewith a few of the mountain and scenic trips arranged for their pleasure while attending Summer School. This program is a hint only. It is simply an indication of the possibilities. There are numerous other possible trips, all within the range of an economical purse, which can be arranged for at the request of any group.

On mountain and plain there is much to be seen and enjoyed by college students, and the College will gladly assist in arranging trips for any group of students exhibiting a desire for the outdoor life.

One of the most striking bits of scenery in the Plains region of Colorado is Pawnee Buttes. Like great white ships they stand out against a sky of intense blue and have attracted artists from far and wide. But scenic beauty is not all the Pawnee Buttes have to offer. Here is one of the geological landmarks of the world. Here the early life history of the horse and the camel have been largely worked out. This ancient cemetery is still the mecca of geologists from far and wide since it was first investigated by the two great paleontologists Marsh and Cope over a half century ago. Pawnee Buttes are conveniently accessible to Greeley, being about sixty miles away. Usually the roads are good and one may camp near the buttes over night. One of the few herds of antelope still wild on the plains of Colorado is seen near the Buttes and coyotes and other wild life are common.

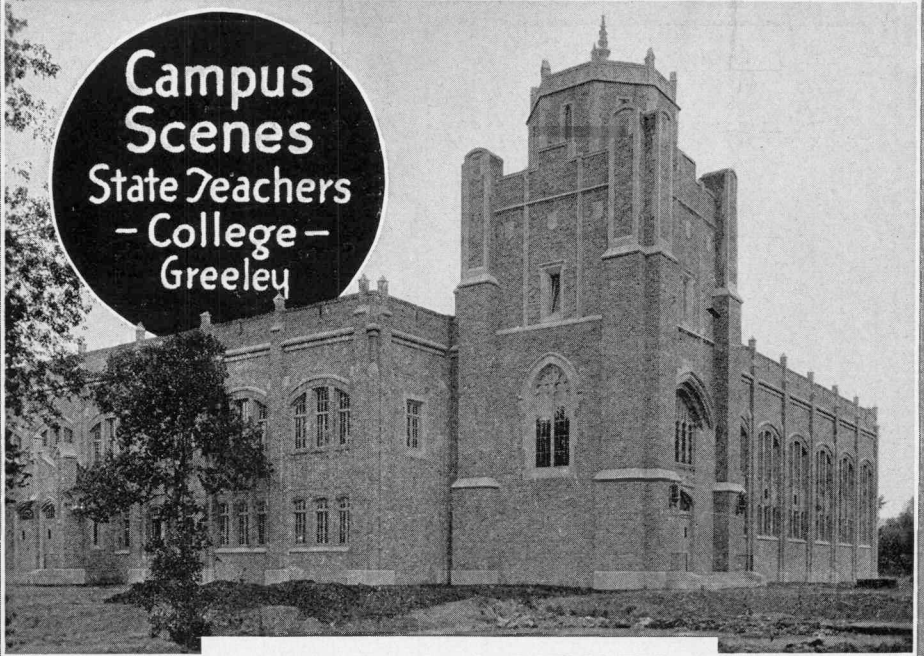
An interesting sight, and one which has claimed attention of scientists far and wide, is the home of the Blue Herons, located four miles west of Greeley and the college campus. A grove of trees located along the banks of the Cache la Poudre house in their topmost branches hundreds of these magnificent birds.

The "Natural Fort" is another point of interest, particularly to the student of history and of western life. The fort is located near Carr, Colorado, on the way to Cheyenne.

The famous "SLW" dude ranch is located only ten miles from the college campus, and students who desire a taste of this life will find this an excellent opportunity.

Definite scheduled trips, showing the dates and cost of same, will be found in the pages following.

Campus  
Scenes  
State Teachers  
- College -  
Greeley



GUNTER HALL OF HEALTH



THE LIBRARY



COLORADO STATE TEACHERS COLLEGE

BULLETIN

*Summer School in  
Nursing Education*

---

---

JUNE 14—JULY 19

1930

**COLORADO STATE  
TEACHERS COLLEGE**  
Greeley, Colo.

---

---

GREELEY, COLORADO

PLEASE POST WHERE YOUR NURSES MAY READ

---

**SERIES XXIX**

**DECEMBER**

**NUMBER 9**

---

**Published Monthly by Colorado State Teachers College, Greeley, Colorado  
Entered as second class matter at the Postoffice at Greeley, Colorado,  
under the Act of August 24, 1912**

---

# Officers of Government and Administration

HARRY V. KEPNER, Sc. D.

President of the Board of Trustees

GEORGE WILLARD FRASIER, Ph. D., LL. D.

President of the College

PHOEBE M. KANDEL, B. S., R. N.

Head of Department of Nursing Education

## BOARD OF TRUSTEES

(Appointed by the Governor of the State of Colorado)

EARL M. HEDRICK	Wray, Colo.
CHARLES N. JACKSON	Greeley, Colo.
HARRY V. KEPNER, Sc. D.	Denver, Colo.
T. W. MONELL	Montrose, Colo.
CLIFFORD P. REX, D. D. S.	Alamosa, Colo.
C. H. STEWART	Delta, Colo.
KATHERINE L. CRAIG	Denver, Colo.

(State Superintendent of Public Instruction, Ex-Officio)

## OFFICERS OF THE BOARD OF TRUSTEES

DR. KEPNER	President
DR. REX	Vice-President
MR. McMURDO	Secretary
DR. KEPNER, MR. JACKSON, MR. HEDRICK	Executive Committee for Colorado State Teachers College

## OFFICERS OF ADMINISTRATION

GEORGE WILLARD FRASIER, Ph. D., LL. D.	President of the College
ETHAN ALLEN CROSS, Ph. D.	Vice-President of the College
WINFIELD DOCKERY ARMENTROUT, Ed. D.	Director of Instruction
FRANK COVERT JEAN, Ph. D.	Chairman of Graduate Council

COLORADO STATE LEAGUE OF NURSING EDUCATION

(Cooperating)

ELLEN PERDUE, R. N. .... President

Assistant Superintendent of Visiting Nurses Association, Denver

SISTER MARY SEBASTIAN, R. N. .... Vice-President

Superintendent of Mercy Hospital, Denver

RUTH COLESTOCK, R. N. .... Secretary

Instructor in Nursing, University of Colorado School of Nursing,  
Denver

ALICE ROCKWOOD, R. N. .... Treasurer

Supervisor, University of Colorado School of Nursing, Denver

---

COMMITTEE ON NURSING EDUCATION

IRENE MURCHISON, R. N. ....

..... Secretary, Colorado State Board of Nurse Examiners

LORETTO MULHERIN, R. N. ....

..... President, Colorado State Board of Nurse Examiners

FRIEDA OFF, R. N. ....

..... Director of Education, Denver General Hospital, Denver

# Nursing Education in Colorado State Teachers College

Courses in Nursing Education conducted for three successive Summer quarters has convinced the administration of Colorado State Teachers College that there is a need for a permanent Department of Nursing Education in the College. Accordingly, by authority of the Board of Trustees such department has been established.

The large attendance, enthusiasm, and perfection of operation of the Summer School classes are very largely attributable to the Colorado League of Nursing Education, which organization first interested the administration in the project. It was on the recommendation of the league that an invitation was extended to Miss Carolyn E. Gray, chairman of the University Relationships Committee of the National League of Nursing Education, to direct and conduct the courses offered. In consequence, the College has found it advisable to continue the work. It becomes thus an outstanding example of another state assuming its responsibilities in nursing Education.

The policy of the College has been to expand gradually to meet the needs of the field of nursing. From the outset the College and the Colorado State League of Nursing Education have been interested in helping to promote the work and to make instruction available for nurses who wish to become better prepared for service in the profession of nursing.

## OPPORTUNITY FOR PRACTICAL EXPERIENCE

The College is fortunate in having the cooperation of the County Commissioners of Weld County, who comprise the Board of Directors of the two hospitals in the city, in reorganizing the hospitals with a view to providing a better nursing and hospitalization service to the community; and a field for practical experience for a limited number of nurses taking the advanced work.

In the development of this new program it is the plan to seek the cooperation of several of the Denver hospital nursing departments to cooperate in providing a field for practical experience for those registering for preparation in head nurse and supervisory work. In this

respect the College is indeed fortunate, being located only fifty miles from Denver, with paved highway the entire distance. The students while in residence in the cooperating nursing departments will be expected to do some study in the specialty of the service in which they are obtaining experience.

The preliminary work given the students of the school of nursing at the College consists of Chemistry, Bacteriology, Anatomy and Physiology, and Personal Hygiene.

An outline of subject matter that the registered nurses may select from, together with a special curriculum, will be the basis for the work that leads to the bachelor's degree. If she wishes to do supervision, or executive work, courses in administration and management may be taken.

The interest of the administration together with the facilities of the College and the cooperation of the Colorado League of Nursing Education will permit of indefinite expansion in the development of the Department of Nursing Education.

## HEAD OF DEPARTMENT HAS HIGH RANKING

To direct and guide the new department, the College, on the recommendation of the officers of the nurses' league of the state, has appointed Miss Phoebe M. Kandel, who did notable work for the schools of nursing in Nebraska. Miss Kandel was the first state Director of Nursing Education in Nebraska, and in the two years that she aided the schools of nursing she urged that the entrance requirements be high school graduation, and that the members of the teaching and supervisory personnel secure additional education preparation. To this end, in her first year in the state, fourteen Nebraskans attended Miss Gray's classes at the Colorado State Teachers College. In the second year Miss Kandel was loaned by the state Department of Public Welfare to assist Miss Gray with the class work at Creighton University, Omaha, and is this semester teaching the classes "Principles of Teaching," and "Methods of Supervision," applied to nursing education to local nurses who are "in-service" in the nursing departments of five of the Omaha hospitals. During the second year of Miss Kandel's service as State Director of Nursing Education she also was loaned to the Wyoming Board of Nurse Examiners to evaluate their schools of nursing for accreditation.

Miss Kandell is a native of Ohio and received her nursing education in that state. She is a graduate of the Western Reserve University School of Nursing, successor to the Lakeside Hospital School of Nursing, Cleveland, Ohio, and of the Teachers College, Columbia University. In addition to her degree she also holds diplomas in teaching and administration. Miss Kandell brings to the Department an extensive and varied experience in private nursing, teaching, supervision and administrative work. She is identified with the American Red Cross Nursing Service and served in the Mississippi Valley Flood Area. Seven years of her professional life were spent in the University of Cincinnati School of Nursing and Health and the Cincinnati General Hospital, the last two years as its director. Just before filling the appointment of State Director of Nursing Education, she did past-graduate work at Columbia and for several months made observations of the problems attendant to the small schools of nursing and studied the organization of the Central School of Nursing in Westchester county, New York. It was during this period that Miss Kandell began her book, "Hospital Economics for Nurses."

# The Course of Study

(For the First Half of the Summer Quarter, 1930)

## 100. PRINCIPLES OF TEACHING APPLIED TO NURSING EDUCATION—Two hours.

Planned for head nurses, supervisors, teachers and principals of nursing.

A study of the scientific principles involved in the nursing care of patients, the selection of subject matter, the sequence of classes, the planning of lessons and demonstrations.

## 101. METHODS OF SUPERVISION APPLIED TO NURSING EDUCATION—Two hours.

Planned for head nurses, supervisors, teachers, and principals of schools of nursing, who need a knowledge of the principles of supervision and their application to the problems in the Hospitals, Schools of Nursing, and Public Health Organizations. It includes (a) a study of the principles on which successful supervision is based, (b) investigation into the practice of successful supervision, and (c) professional problems involved.

The two courses set forth above are the basic courses in the Department of Nursing Education during this special Summer School. Both will be taught by Miss Kandel, the head of the department. It is strongly urged, however, that nurses registering for these courses supplement them by work in other departments in the College. Courses of particular benefit to those taking nursing education might be suggested as follows: English, Project Method of Teaching, History and Philosophy of Education, Problems of Educational Administration, History, Zoology, Introduction to the Social Sciences, Educational Psychology, and Sociology, Lettering and Freehand Drawing.



## ADMISSION AND ENTRANCE REQUIREMENTS

Entrance requirements in the department of Nursing Education are the same as those fixed for all other departments of the College, with the additional qualification that the student must be a registered nurse. This will enable women engaged in the profession of nursing in the Rocky Mountain region to advance in their profession at a minimum of inconvenience and expense.

The courses are open to graduate nurses from accredited schools of nursing, and to such others as may have the necessary credits for admission to the College.

Provision may be made for the admission of nurses who may be interested in the course but who have not had the credits to meet the College entrance requirements. In such cases credit will be withheld until the student matriculates.

Students enrolling in this course will be registered as special students. Those meeting the College entrance requirements may become candidates for the Bachelor of Arts degree. Credits in the nursing education course will count toward such degree.

## CREDITS

The number of credits will depend on the subjects chosen. For instance, the special nursing courses offered, Nursing Education 100, and Nursing Education 101, carrying two hours credit each.

Students taking these courses are advised to supplement them by courses in other departments, as suggested on page 8. All of the regular courses offered by the College, however, are open to these students, and additional credits may be earned at *no additional cost*.

While students registering in this course are primarily interested in nursing and nursing topics, still the student who is anxious for professional advancement will seek wider educational contacts, and with this in mind, it is recommended that other subjects such as psychology, education, chemistry, history, sociology or physiology be included in the program, with possibly some work in English if the student finds time.

## CALENDAR

Saturday, June 14 .....	Registration
Monday, June 16 .....	Classes Begin
Saturday, July 19 .....	Classes End

## THE COST

Tuition (Regular summer tuition, half quarter).....	\$16.00
Special fee (for each nursing course \$3.50).....	7.00
Library Fee .....	2.00
<b>Total</b> .....	<b>\$25.00</b>

Non-residents of Colorado are required to pay an additional fee of \$2.50 for the half quarter.

## LIVING

Private homes in the vicinity of the College provide rooms for students at moderate rates. All rooms are under the strict supervision of the College. All rooms must be approved. The cost of rooms is from \$10.00 to \$12.00 a month for each student where two students occupy a room; for one student in a room the cost is from \$12.00 to \$18.00.

The dormitory triangle, adjoining the campus, provides accommodations for a limited number of students. Each room is provided with two beds and complete accommodations for two students. The demand for rooms in the dormitories is so great that reservations must be made very early if one expects to obtain accommodations therein. Rooms in the dormitories cost from \$15.00 to \$18.00 per half-quarter. Students in the dormitories are required to furnish their own bed linen and towels.

Additional information concerning rooms may be had and reservations made by writing to the head of the housing bureau.

Students board in private houses. The average cost for board is \$6.00 per week.

## MOUNTAIN CLIMBING FAVORITE RECRETATION

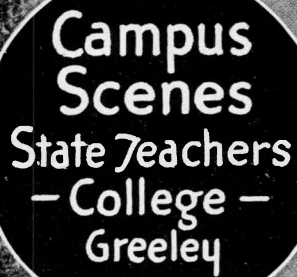
Nurses from a wide territory, east and west, have attended the summer sessions. Some of these no doubt have been attracted by the ideal climatic conditions. Greeley is situated midway between Denver and Cheyenne. It is a mile above sea level, hence enjoys a dry climate and none of the hot, damp, sticky and uncomfortable conditions of so many of the cities located at sea level.

Greeley is located, too, only a short distance from the Rocky Mountains, which affords excellent opportunity for enjoyable and health-giving jaunts. On clear days, one may glimpse from the College many miles of mountain range. Because of the location of the College so close to the mountains, less than an hour's drive from the gateway to Rocky Mountain (Estes) National Park, students are able to make frequent outings to this wonderful playground. Week-end trips to the mountains are a feature of student life during the summer quarter at Colorado Teachers College.

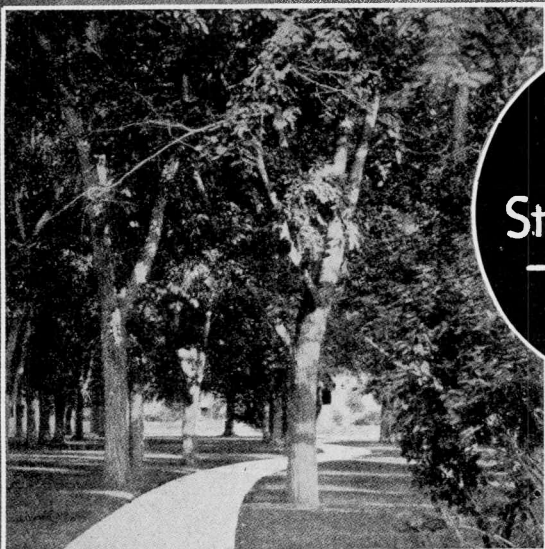
Detailed information concerning the full program of courses offered by the College in the Summer quarter will be found in the regular College bulletin. Copies of this bulletin and any additional information desired by those interested may be had by addressing

GEORGE WILLIARD FRASIER, *President*  
Colorado State Teachers College, Greeley, Colorado.





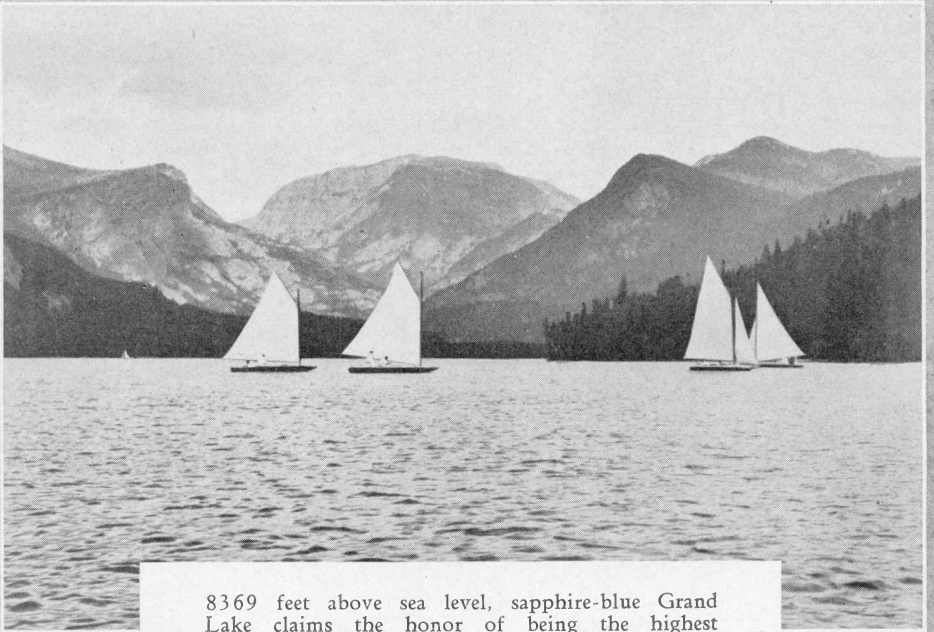
Campus  
Scenes  
State Teachers  
— College —  
Greeley



SERPENTINE  
PATHWAY



ADMINISTRATION BUILDING



8369 feet above sea level, sapphire-blue Grand Lake claims the honor of being the highest yacht anchorage in the world. . . . .

## Grand Lake Circle Tour

*Three Day Trip*

Total Distance, 262 miles

JUNE 20, 21, 22

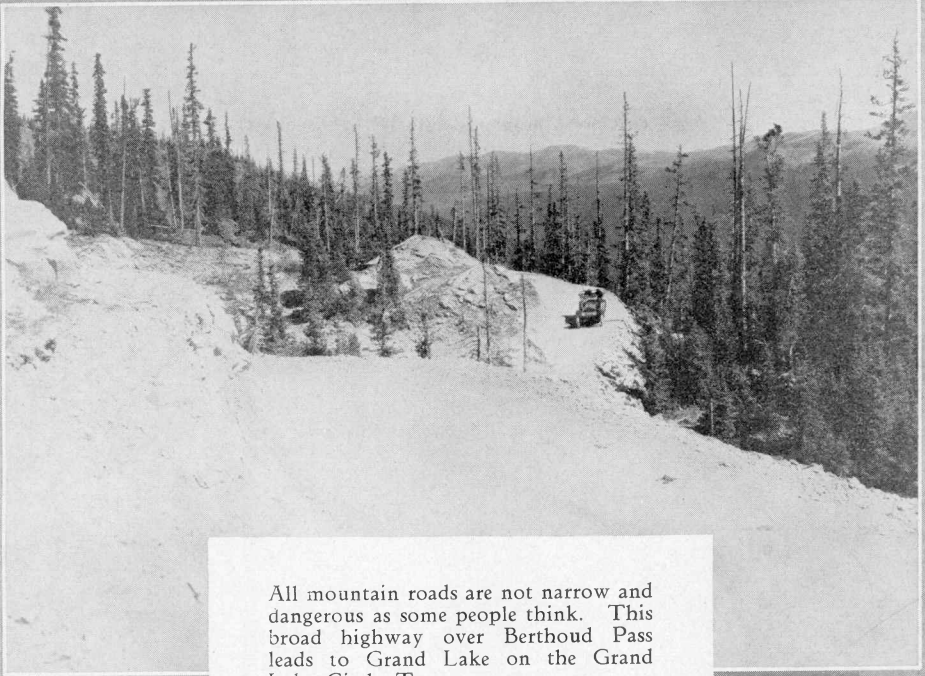
Leaving Greeley at 4 p. m. Friday and returning at 6:30 p. m. Sunday.

Points of interest—Big Thompson Canyon, Camp Olympus, Estes Park, Rocky Mountain National Park, Fall River Road, Continental Divide, Grand Lake, Moffat Tunnel, Grandby Lettuce Fields, Berthoud Pass, Idaho Springs, Lookout Mountain, Golden and Denver.

Friday evening dinner, lodging and Saturday morning breakfast at Camp Olympus. Saturday luncheon, dinner, lodging and Sunday morning breakfast at Grand Lake Lodge. Sunday dinner at Placer Inn, Idaho Springs.

In groups of 11, 14, 22, 25, 28, including transportation, lodging and meals.

*Total cost per individual*.....\$23.75



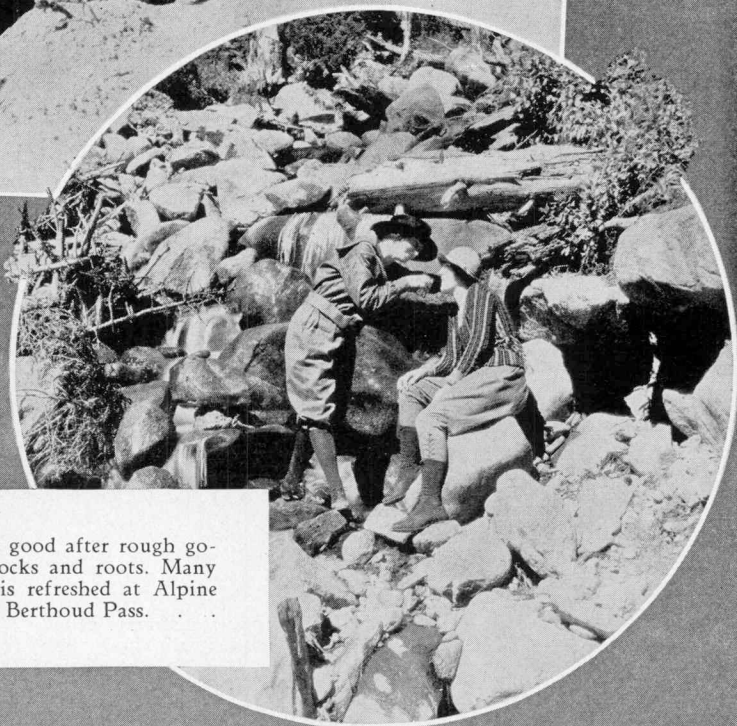
All mountain roads are not narrow and dangerous as some people think. This broad highway over Berthoud Pass leads to Grand Lake on the Grand Lake Circle Tour. . . . .



Sparkling, clear, cold mountain streams provide perpetual filling stations all along the way on the Grand Lake Circle Tour through Rocky Mountain National Park. . . . .

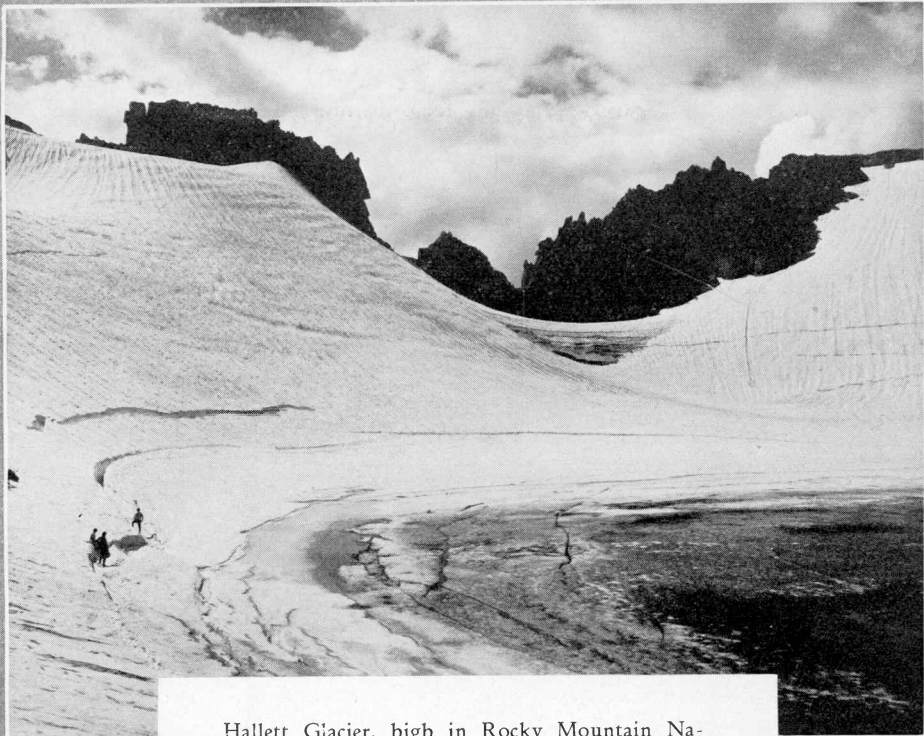


It's undoubtedly interesting in the foreground and equally so in the background with Empire Cone in the distance. On the Berthoud Road. Grand Lake Circle Tour.



It tastes so good after rough going over rocks and roots. Many a traveler is refreshed at Alpine Creek near Berthoud Pass.



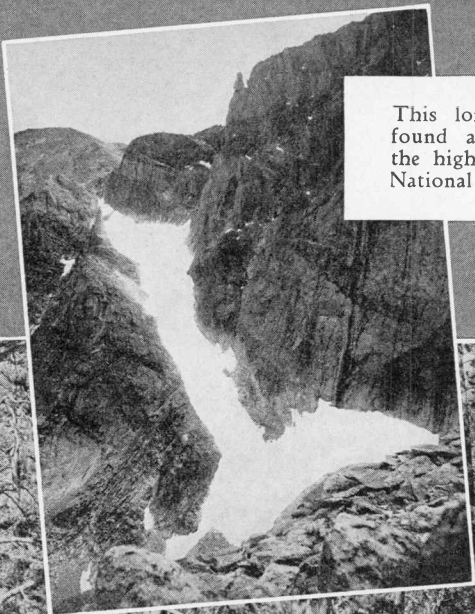


Hallett Glacier, high in Rocky Mountain National Park, Colorado, is a big nature bowl from which comes many a cooling breeze.



Winter sports in summer at Tyndall Glacier, two miles above sea level. Rocky Mountain National Park.

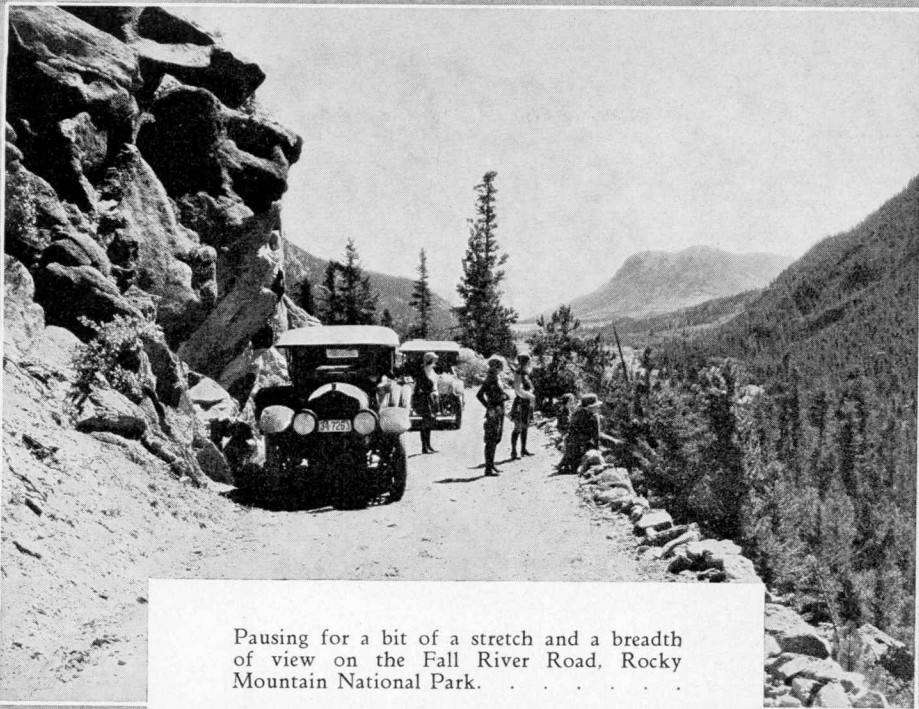
This long, narrow glacier is to be found at the base of Long's Peak the highest peak in Rocky Mountain National Park.



They're on their way over Flat Top Mountain to Lake Nanita, the largest lake in Rocky Mountain National Park.



At Berthoud pass, you cross the Continental Divide for the second time on the Grand Lake Circle Tour through Rocky Mountain National Park. Altitude 11,330 feet.



Pausing for a bit of a stretch and a breadth of view on the Fall River Road, Rocky Mountain National Park.

# Estes Park, Fall River and High Drive Tour

Total Distance, 170 miles

JUNE 27, 28

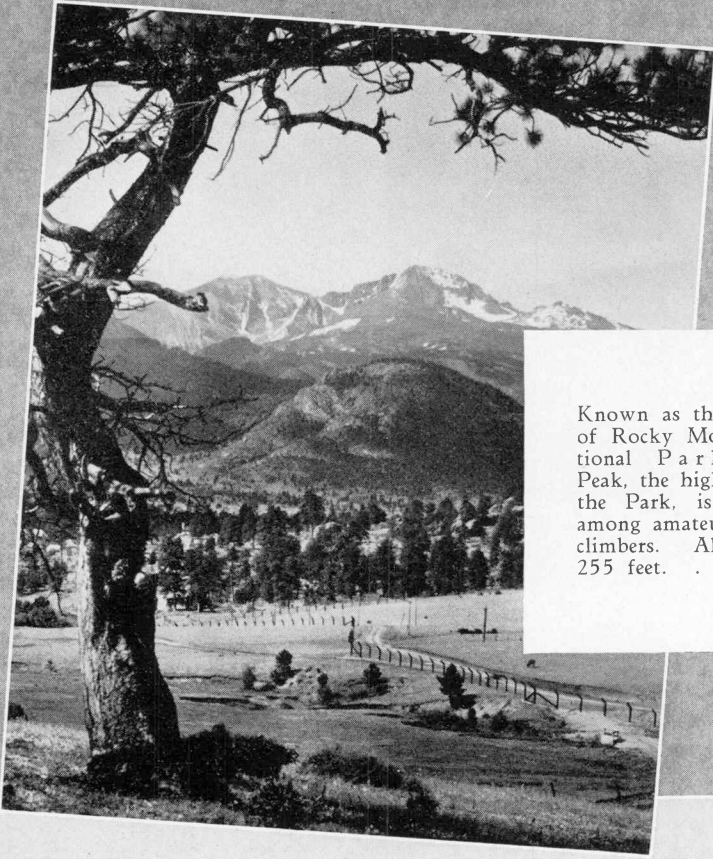
Leaving Greeley at 3:30 p. m. Friday and returning at 5 p. m. Saturday.

Route—Big Thompson Canyon to Camp Olympus, Estes Park, Rocky Mountain National Park, Fall River and High Drive, Bear Lake and return to Camp Olympus for Saturday luncheon. Returning to Greeley via Devil's Gulch Saturday afternoon.

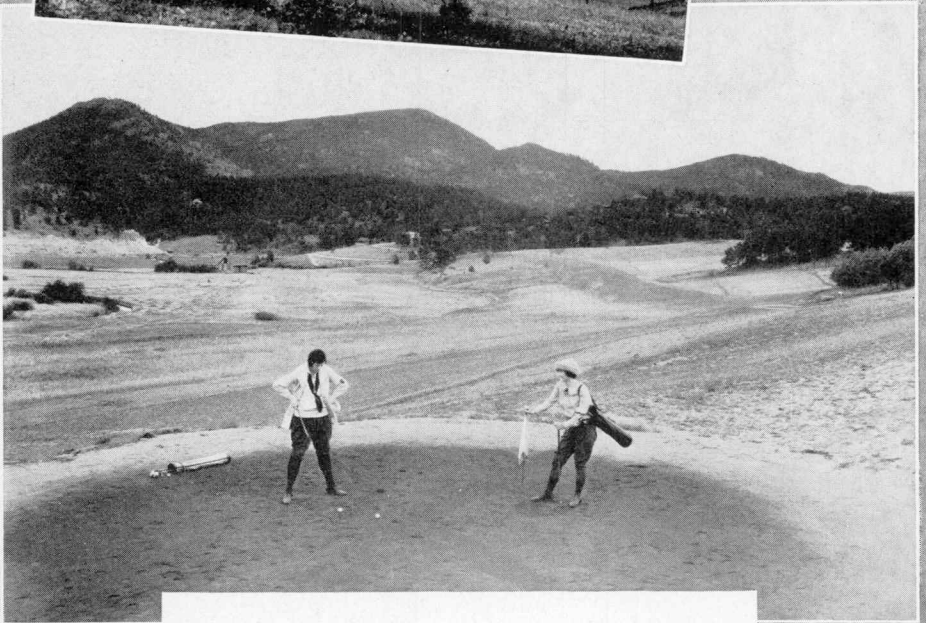
Friday evening dinner, lodging, Saturday breakfast and luncheon at Camp Olympus.

In groups of 11 or 14, including transportation, lodging and meals.

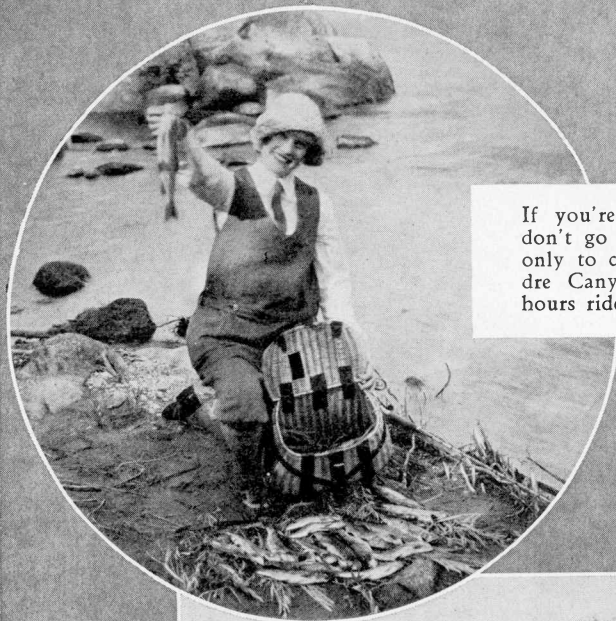
Total cost per individual .....\$10.75



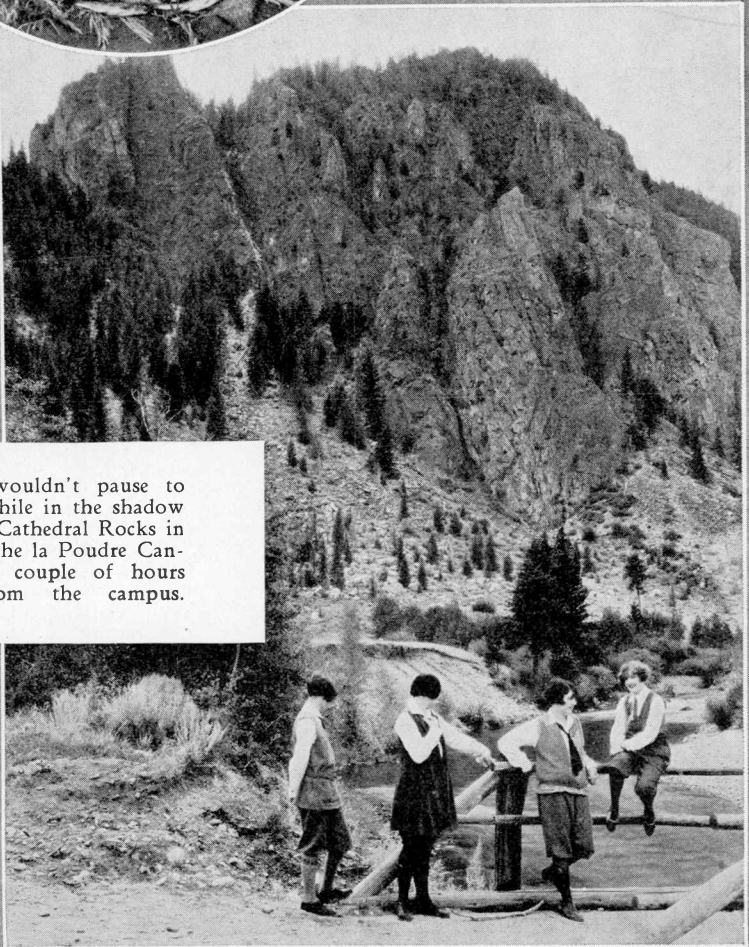
Known as the "Monarch of Rocky Mountain National Park," Long's Peak, the highest peak in the Park, is a favorite among amateur mountain climbers. Altitude 14,255 feet. . . . .



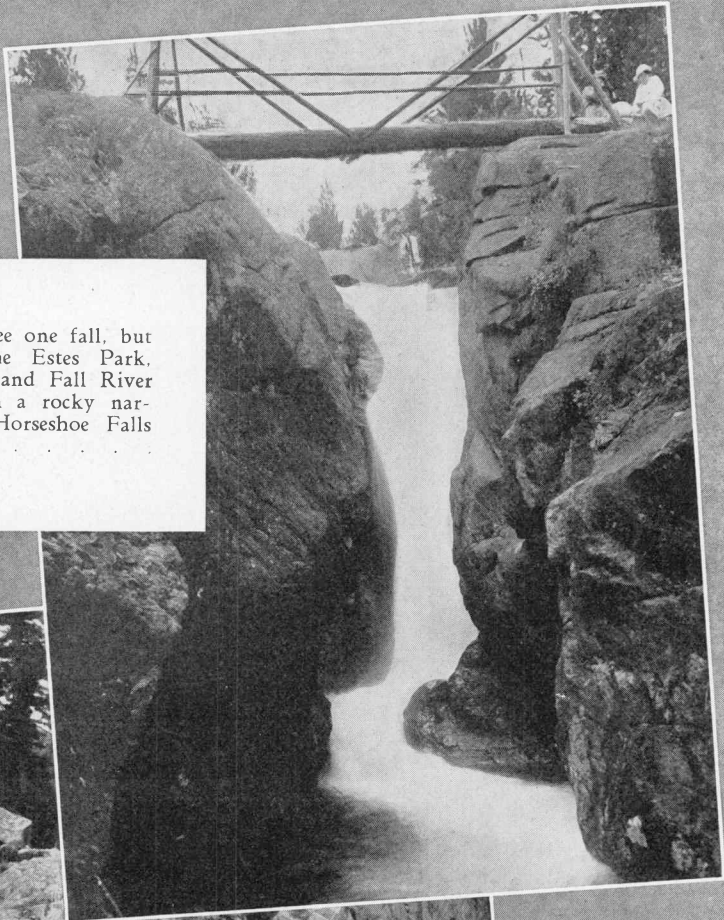
What a background for a game of golf!  
Estes Park, Colorado.



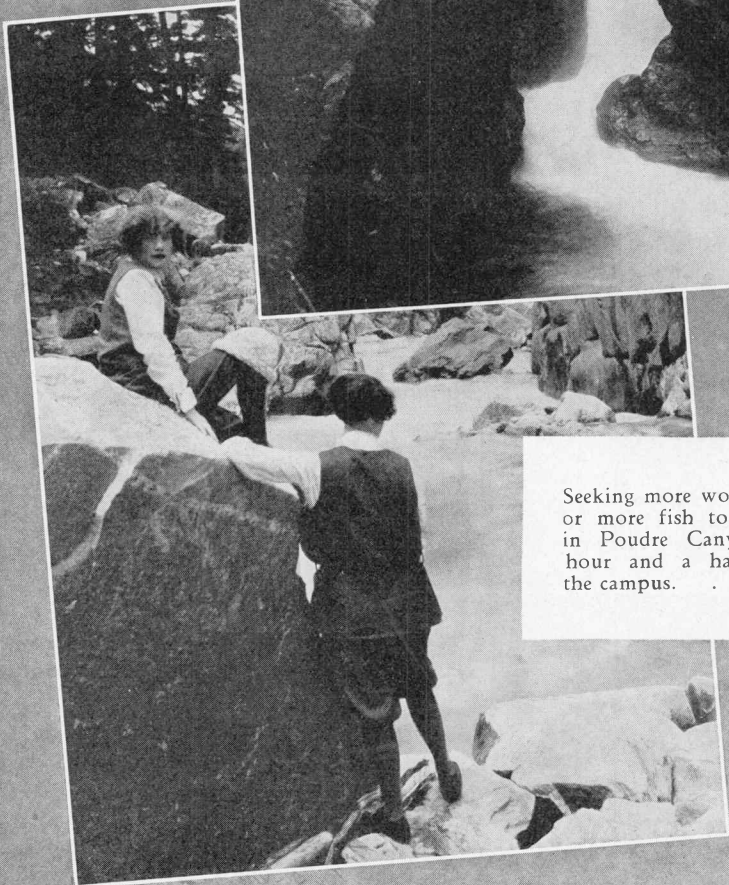
If you're looking for a "catch," don't go any farther. Two hours only to complete this job in Poudre Canyon, and it's about two hours ride from the campus. . .



Who wouldn't pause to rest awhile in the shadow of the Cathedral Rocks in the Cache la Poudre Canyon, a couple of hours ride from the campus.

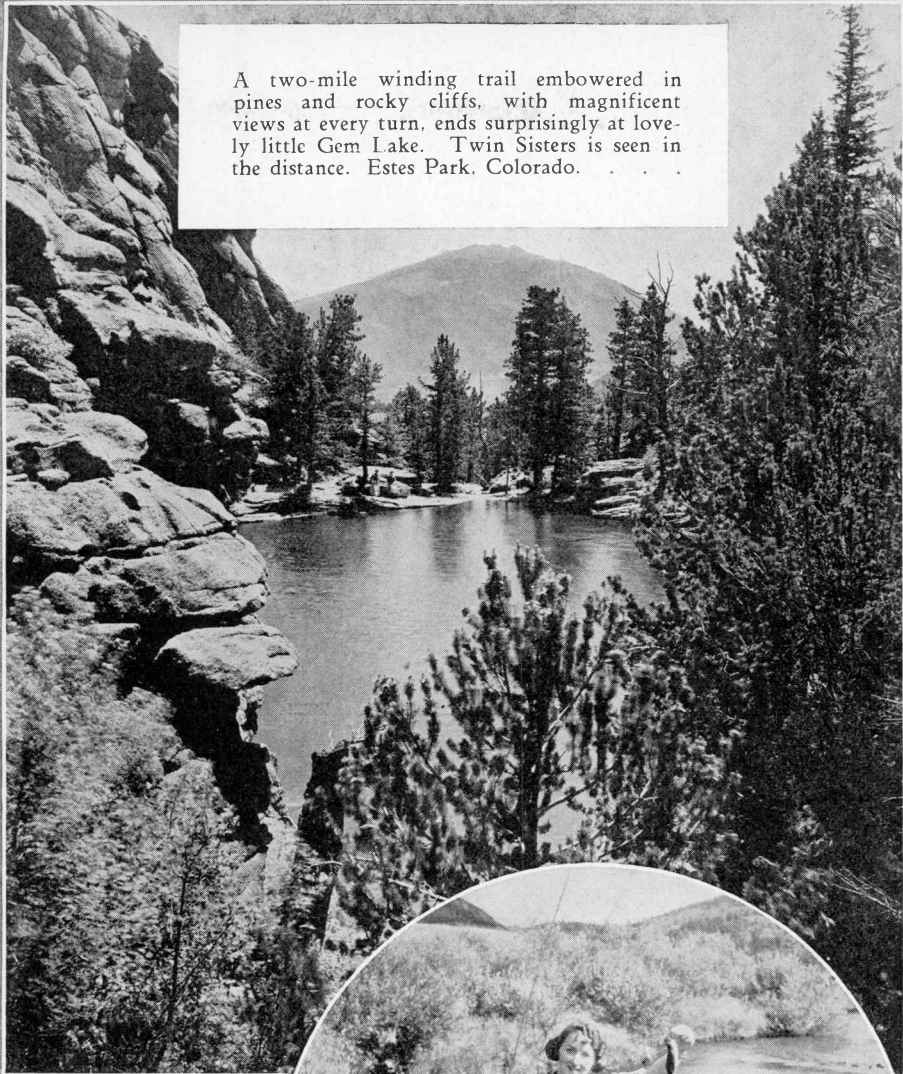


You won't see one fall, but many on the Estes Park, High Drive, and Fall River Tour. Down a rocky narrow gorge, Horseshoe Falls drops sheerly. . . . .



Seeking more worlds to conquer, or more fish to catch perhaps, in Poudre Canyon, about an hour and a half's ride from the campus. . . . .

A two-mile winding trail embowered in pines and rocky cliffs, with magnificent views at every turn, ends surprisingly at lovely little Gem Lake. Twin Sisters is seen in the distance. Estes Park, Colorado.



Outsmarting the trout in an Estes Park Mountain Stream.



The  
Columbine,  
"flower of the  
beautiful head"  
is Colorado's  
state flower.

Pawnee Buttes, where students  
study peculiar rock formations.

## Pawnee Buttes Tour

Total Distance, 170 miles

JULY 5

Leaving Greeley at 9 a. m. and returning in the afternoon as soon as the exploration of the Buttes is completed.

Route—Greeley to Briggsdale and then to the Buttes.

A box lunch will be furnished for each member of the party.

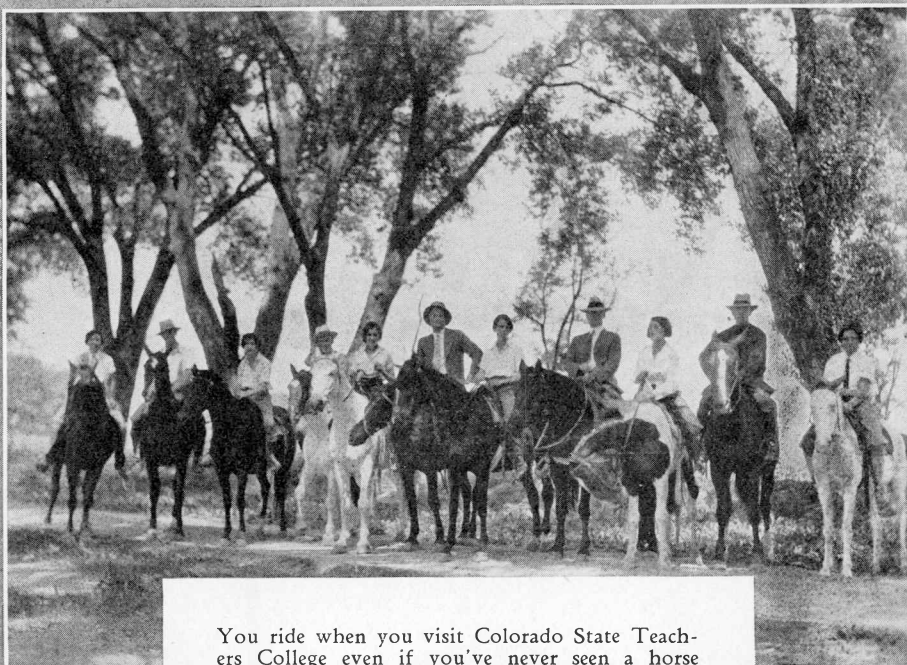
In groups of 20 or 28 including lunch and transportation.

Total cost per individual ..... \$6.75





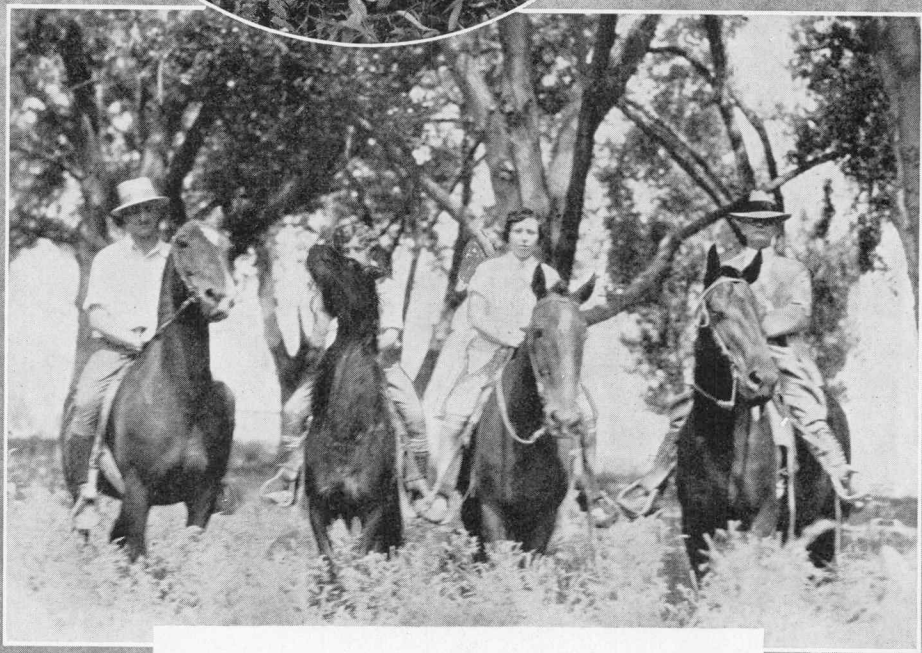
A coach and four is part of the fun  
at the S. L. W. Dude Ranch



You ride when you visit Colorado State Teachers College even if you've never seen a horse before. The S. L. W. Dude Ranch is located only ten miles from the Campus. . . .



"Stop, look, and listen."  
says this baby doe.



The "Four Horsemen" ready for the beauties  
of the trails as they spend a week-end  
on the famous S. L. W. Dude Ranch. . . . .



Pikes Peak, 14,109 feet in altitude, is one of the highest and best known peaks in Colorado

## Pikes Peak Tour

Total Distance, 326 miles

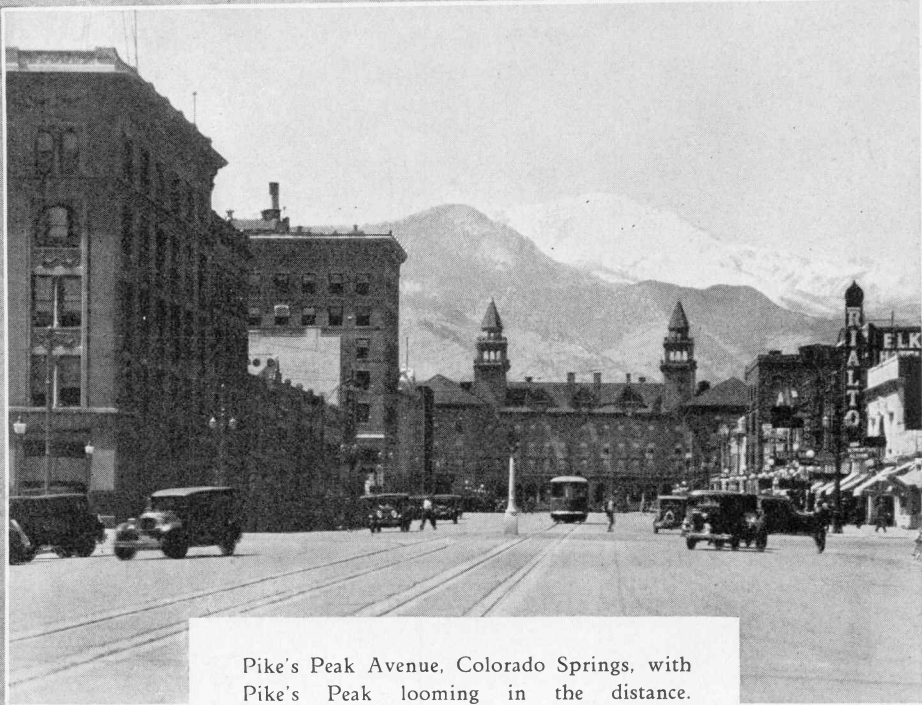
JULY 11, 12

Leaving Greeley at 1 p. m. Friday and returning at 9 p. m. Saturday.

Points of interest—Castle Rock, Elephant Mountain, Colorado Springs, Colorado City, Garden of the Gods, Cave of the Winds, Seven Falls, South Cheyenne Canyon and Pikes Peak.

In groups of 7, 14, or 21, including transportation, Friday evening dinner, Friday night's lodging, Saturday breakfast, lunch and dinner.

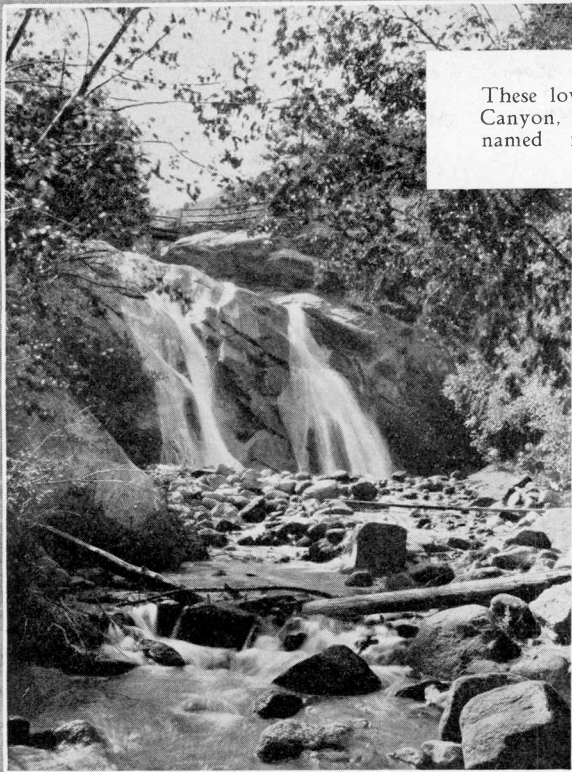
Total cost per individual.....\$23.25



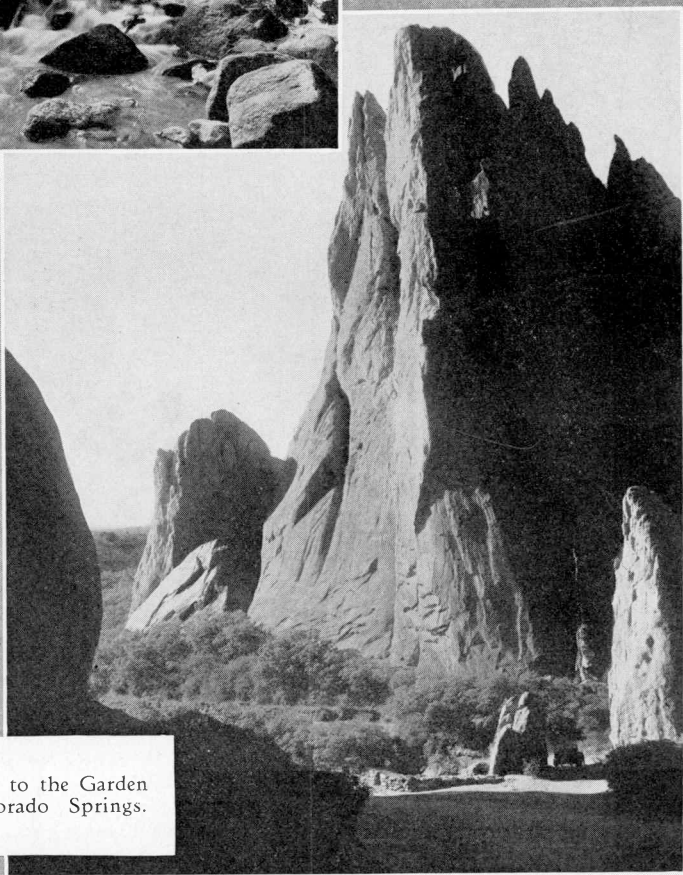
Pike's Peak Avenue, Colorado Springs, with Pike's Peak looming in the distance.



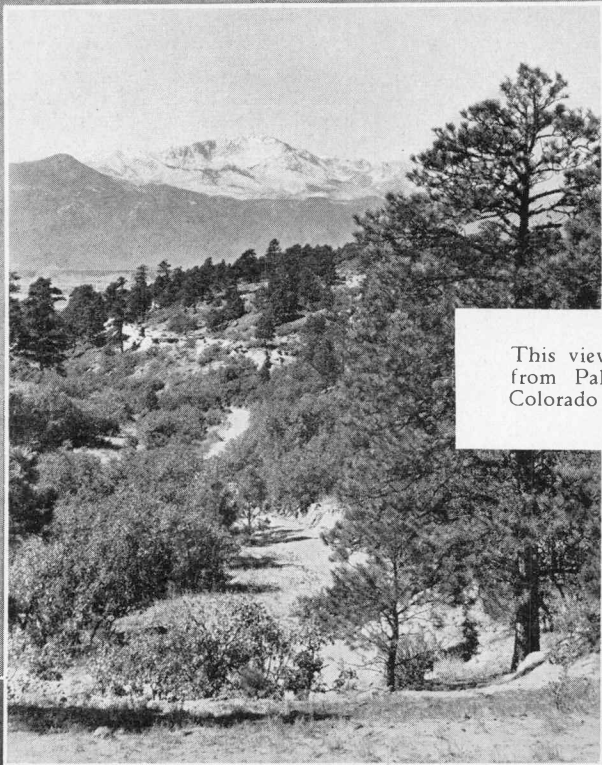
Curious sandstone formations in the Garden of the Gods, which is a part of the Park System of Colorado Springs.



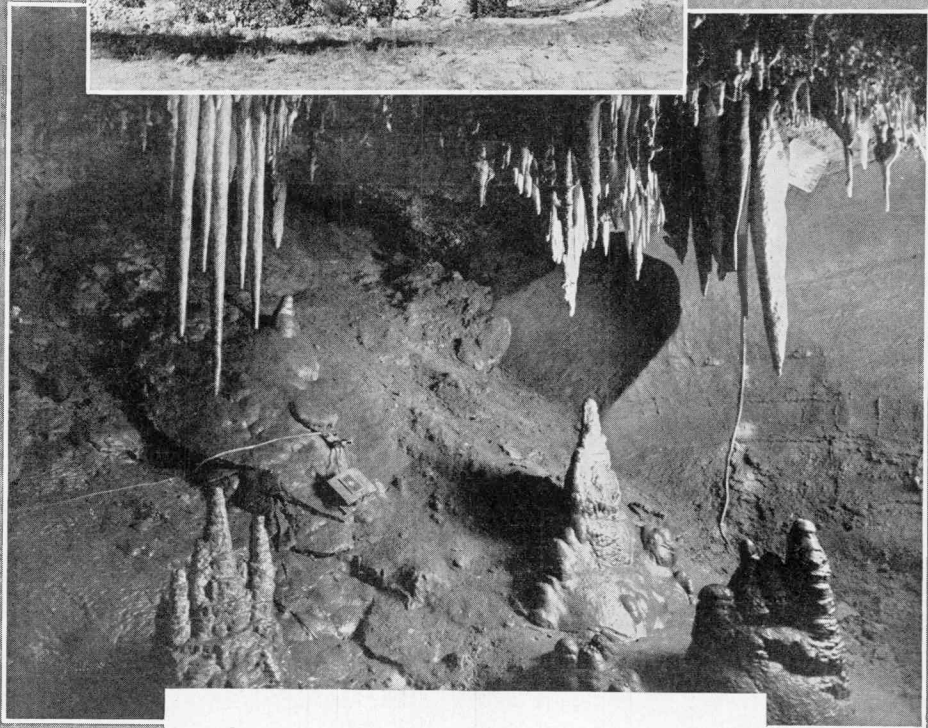
These lovely falls in North Cheyenne Canyon, Colorado Springs, were named for Helen Hunt Jackson.



The South Gateway to the Garden of the Gods, Colorado Springs.



This view of Pike's Peak is from Palmer Park, one of Colorado Springs' city parks.



Cathedral Spires in the Cave of the Winds, Manitou, Colorado, is just one of the many curious formations to be found in this beautiful cave.



It was only fifty years ago that the Ute Indians built their campfires on Lookout Mountain in the Denver Mountain Parks. Today it is a favorite picnic spot for gay parties of young folks.

# Lookout Mountain and Echo Lake Tour

Total Distance, 216 miles

JULY 26

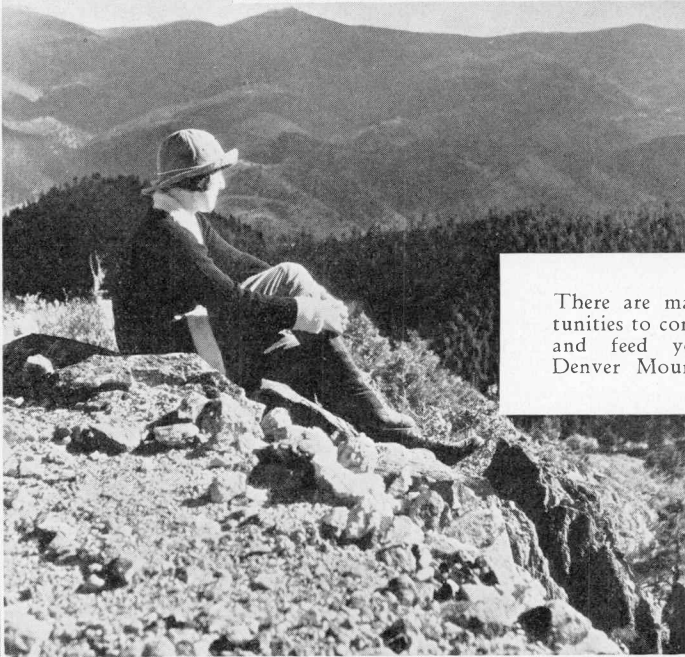
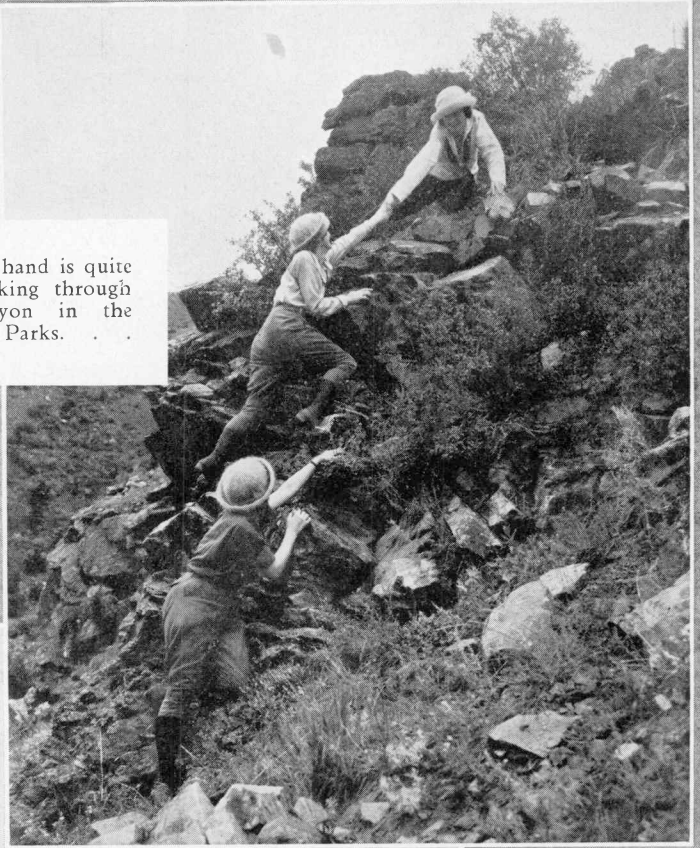
Leaving Greeley at 7 a. m. Saturday and returning at 8 p. m. of the same day.

Route—Greeley to Denver, Golden, Lookout Mountain, Buffalo Bill's Museum, Bergen Park, Silver Fox Farm, Idaho Springs, Echo Lake and return to Denver via Evergreen. Luncheon at Placer Inn, Idaho Springs.

In groups of 11, 22 or 28 including transportation, and luncheon.

Total cost per individual.....\$6.90

Lending a helping hand is quite the code when hiking through Bear Creek Canyon in the Denver Mountain Parks. . . .



There are many blessed opportunities to commune with nature and feed your soul in the Denver Mountain Parks. . . .





Elitch Gardens, Denver, is a paradise for pleasure-seekers of every age. With flowers to the right and flowers to the left wander down a shady lane leading to a lovely old-fashioned orchard, to a modern theater, to a thrilling roller coaster, or to an enormous dancing pavilion where lilting strains of dance music or a symphony concert may be heard. . . . .

## Elitch Gardens Tour

Total Distance, 116 miles

AUGUST 2

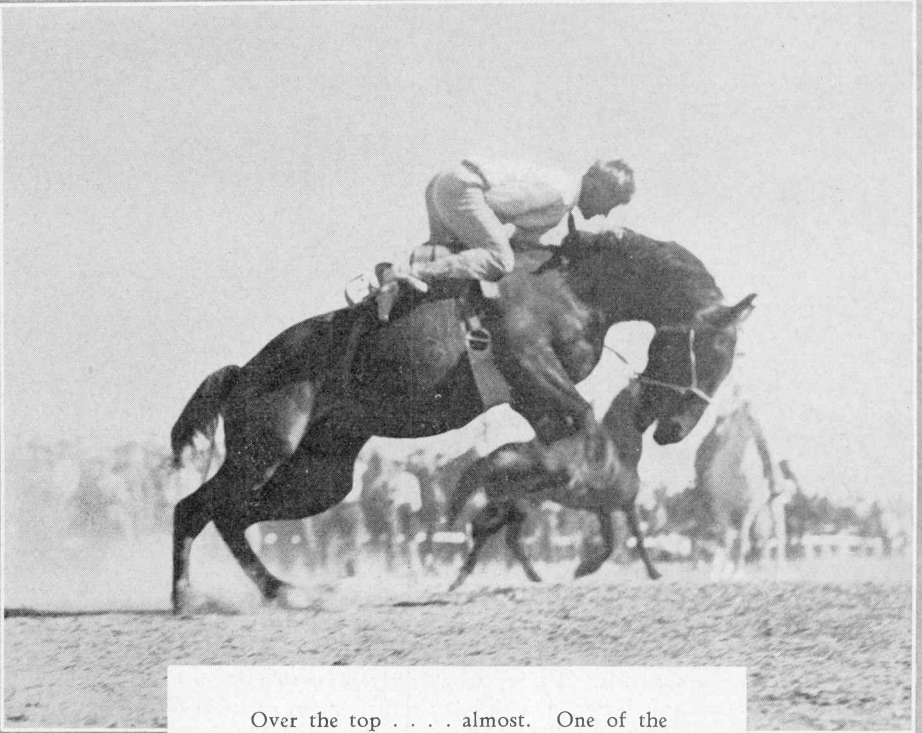
Leaving Greeley at 1 p. m. and returning after the show.

Elitch Gardens is the playground of Denver. Thousands of tourists visit this beautiful place every summer. Not to see the Elitch Gardens is not to see Denver. Players of national reputation are booked for the theater performances in Elitch Gardens every summer. Each member of this party will pay for his own ticket to the theater, supper and any other expense in Elitch Gardens.

The total cost for this tour will largely be a matter for each member of the party to decide.

In groups of 20 or 24—

*Total cost of transportation per individual*.....\$2.35



Over the top . . . . almost. One of the many thrills at the Cheyenne Rodeo.

## Frontier Days Tour

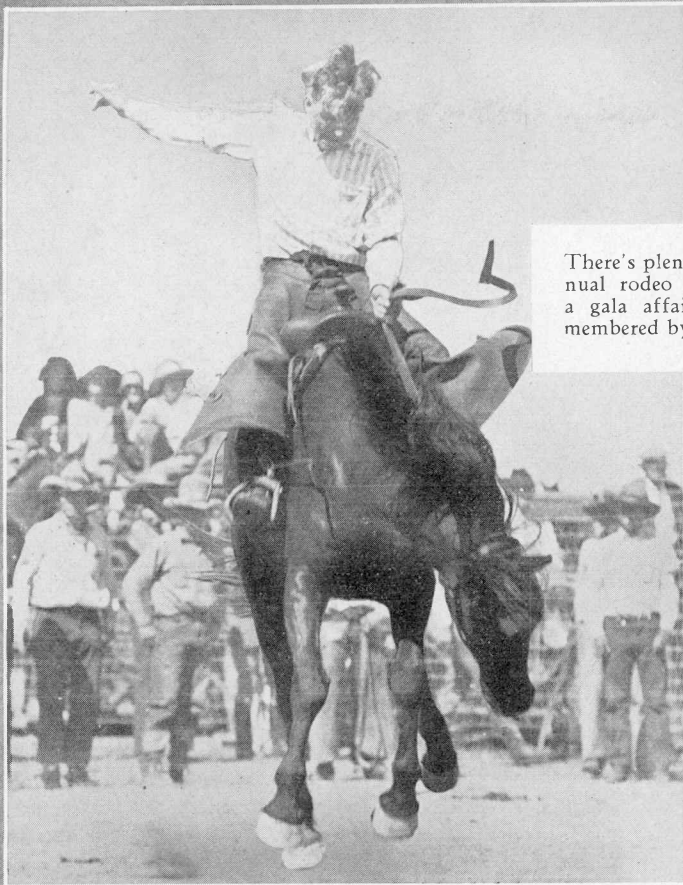
Total Distance, 130 miles

Leaving Greeley at 10 a. m. and returning from Cheyenne following the afternoon performance.

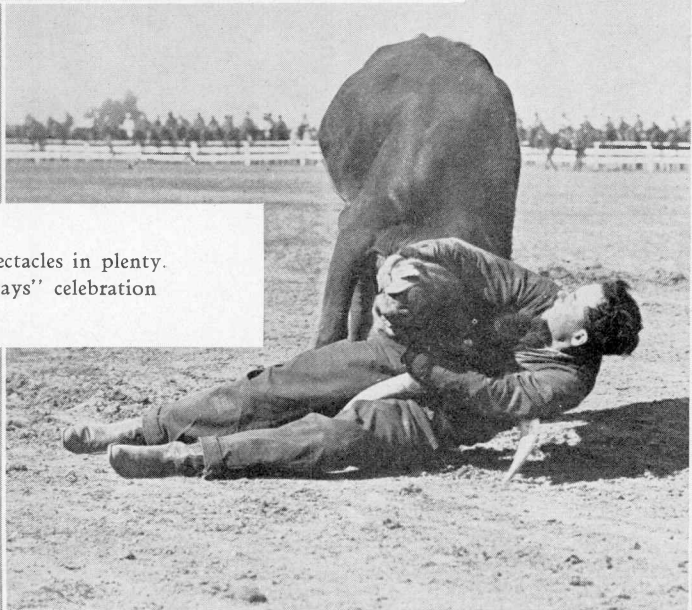
Frontier Days in Cheyenne is a rodeo of national reputation. Here, the West of the early days is reproduced. Wild steers, bucking broncs, dare-devil cowboys and cowgirls vie with each other in staging the foremost western show in the United States. Cheyenne Frontier Days is a celebration which is truly "The Daddy of Them All."

In groups of 20 or 28—

*Total cost per individual including transportation, luncheon and ticket to the rodeo* -----\$7.25



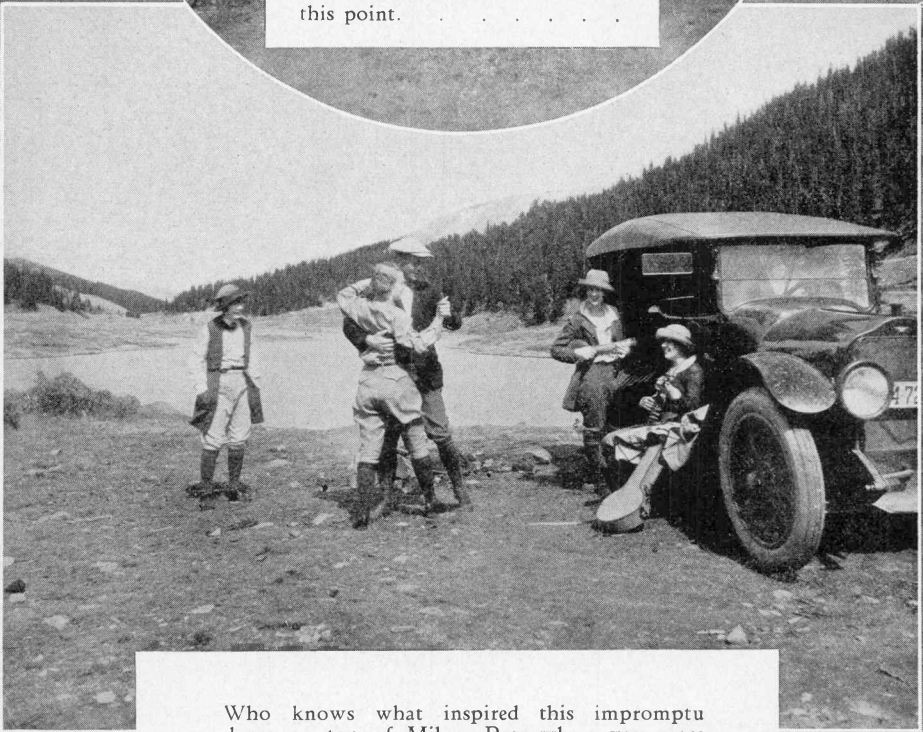
There's plenty of kick in the annual rodeo at Cheyenne. It is a gala affair that is long remembered by the students.



Thrilling spectacles in plenty.  
"Pioneer Days" celebration

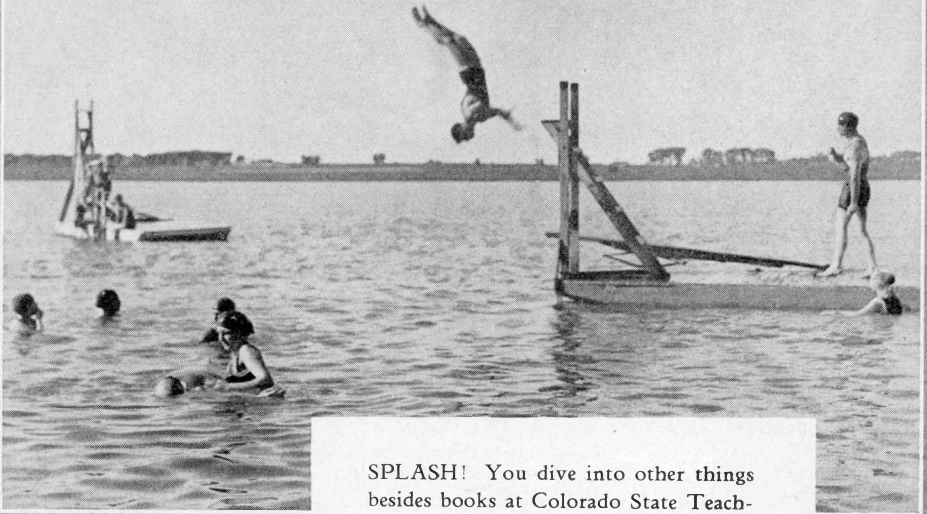
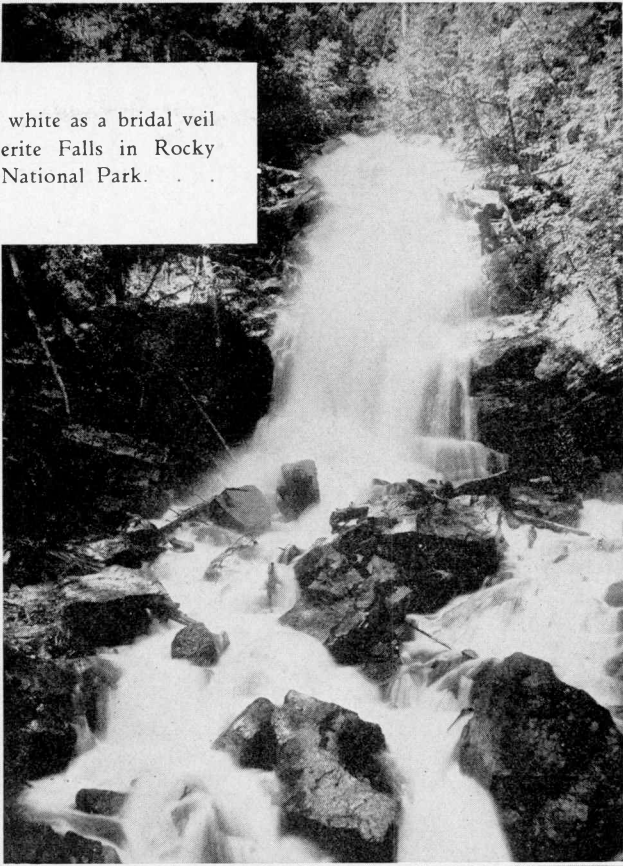


A bridge shaded by lovely trees crosses the Poudre River at this point. . . . .



Who knows what inspired this impromptu dance on top of Milner Pass where you cross the Continental Divide on the Grand Lake Circle Tour through Rocky Mountain National Park. They say the altitude sometimes goes to the head like wine, and the Pass is 10,759 feet above sea level. . . . .

Foamingly white as a bridal veil  
are Marguerite Falls in Rocky  
Mountain National Park.



SPLASH! You dive into other things  
besides books at Colorado State Teachers  
College. Seeley's Lake is a mere  
fifteen minute ride from the campus.



Not woodland nymphs, but a class in esthetic dancing drawing inspiration from lofty peaks, scented pines, and glistening pools. . . .







COLORADO STATE TEACHERS COLLEGE

# Bulletin



## SUMMER QUARTER

June 14---August 23

(First Half Begins June 14---Second Half Begins July 21)

1930

GREELEY, COLORADO

SERIES XXIX

FEBRUARY

NUMBER 11

---

---

## IMPORTANT ANNOUNCEMENT

---

### THE SUMMER QUARTER OPEN TO ALL

Any person twenty years of age or over, whether a high school graduate or not, may enroll in the College for the summer quarter and take such subjects as he is interested in and able to carry. A record of attendance and a list of the subjects taken will be kept. College credit toward graduation is given only to those who meet the entrance requirements as stated on pages 16 and 17. Students who attend the summer quarter without submitting high school credentials may later present these and have their marks previously earned transferred to the regular credit records of the College.

Those students who consider themselves candidates for graduation should make sure that proper matriculation has been effected. Since the summer quarter is open to all, students who have attended during summer quarters only should not assume that their admission has been formally determined. Your case may need adjustment under current credit standards. In the case of students who entered and earned credit prior to September 1, 1929, care should be taken to determine whether an adjustment is required. (See pages 16, 17, 18, 19, under heading "Admission.") A matriculation fee of \$5.00 is charged. This covers all tests, transfer of records, etc. Those students who desire to matriculate and to become candidates for graduation should give notice of such desire at the time of temporary registration.

The number of students who wish merely to audit classes must necessarily be limited on account of lack of room. Students enrolled for credit must be given preference. Any student desiring to enter as an auditor for one or more classes must secure a special permit from the registrar. Fees are the same as for the course when taken for credit.

The College, as usual, divides the summer quarter into two equal half-quarters for the convenience of the few students who can attend for only a part of the time. Only those courses which are designated "First Half," "Second Half," or "Either Half" carry credit for less than the full quarter. All other courses must be carried for the full quarter, if taken for college credit. Note: A required course should not be taken for half credit by a candidate for graduation.

### PERSONAL CHECKS

All students not identified at the Greeley banks are urged to bring letters of credit or sufficient money in travelers' checks to pay all bills until such time as they may be able to transfer their account to Greeley or make arrangements with the Greeley banks to cash their checks. All regular college bills, such as tuition, dormitory rent, and music, may be paid by the personal check of the student provided it is made out for the amount of the bill. The college is always willing to help out in all financial matters but does not assume the responsibility of cashing students' personal checks.

### EVENING LECTURES AND SPECIAL LECTURE COURSES

See the notice concerning the afternoon and evening lectures under Special Courses of Lectures, on page 13.

---

---

COLORADO STATE TEACHERS COLLEGE

# Bulletin

Summer Quarter  
1930

THE QUARTER

June 14-August 23

First Half  
June 14-July 19

Second Half  
July 21-August 23

Published Monthly by Colorado State Teachers College, Greeley, Colorado  
Entered as second class matter at the Postoffice at Greeley, Colorado,  
under the Act of August 24, 1912

Current numbers of any of the College Publications may be had on application  
to the President of the College, Greeley, Colorado

## ORDER OF REGISTRATION

All students who expect to be in attendance for the full quarter should make up a program for the full quarter. Fees may be paid all at once, or, for the student's convenience, in two parts, namely, one-half on the designated dates of permanent registration for each half quarter.

### I. TEMPORARY REGISTRATION

Temporary registration will take place in Gunter Hall Saturday, June 14, beginning at 7:00 A. M.

Class cards will not be given out until the opening date of permanent registration. The following blanks will be provided:

1. Personal data cards
2. Temporary enrollment card

The personal data card must be filled out each quarter.

The temporary enrollment card when completed shows your proposed schedule of classes. Do not make changes in your originally approved schedule without referring such changes to your adviser.

Class tickets are used when the enrollment in any class is limited. A complete list of limited classes will be found in the printed instructions which you will receive as a part of the registration material. Tickets are not valid if presented to teachers after first recitation unless other arrangements are made with the registrar.

When the student presents himself for registration, detailed printed instructions will be supplied.

Students who desire to matriculate and become candidates for graduation should give notice of such desire at this time.

### II. PERMANENT REGISTRATION

The "Student's Daily Schedule" and "Class Cards" (permanent blanks) will not be given out until after June 14. Attend classes by presenting the Temporary Enrollment Card to teachers until you, your adviser, and teachers are satisfied with the proposed schedule. If you are ready to transfer to permanent blanks June 18, the opening date of permanent registration, do so. Permanent registration, which includes payment of fees, will be conducted through the offices in the Administration Building on the following dates: June 18, 19, 20.

### III. LATE REGISTRATION

A late registration fee of \$1.00 will be charged if temporary registration has not been completed and approved by 4:00 P. M., June 14. Transfer to the permanent blanks must be completed by 4:30 P. M., June 20, the closing date of permanent registration, or another fee of \$1.00 will be imposed. The same late registration fees will be charged for the second half of the quarter.

Except by special permission of the registrar, no student, after the first quarter of work who registers after the first day of the quarter, shall, under any consideration, be allowed to take more than sixteen hours of work. If the student is more than two days late, the total number of hours on his program will be reduced in proportion to the time lost.

### IV. LEAVING BEFORE FINAL EXAMINATIONS

Any student absent from class on the last day of the quarter will have his quarter report for that class turned in as "failure," unless he has written permission from the vice-president of the College to leave before the close of the quarter. Application for such a permit shall be made in writing. No teacher has authority to excuse a student from any class before the close of the quarter.

# OFFICERS OF GOVERNMENT AND ADMINISTRATION

HARRY V. KEPNER, Sc.D.  
*President of the Board of Trustees*

GEORGE WILLARD FRASIER, Ph.D., LL.D.  
*President of the College*

## BOARD OF TRUSTEES

(Appointed by the Governor of the State of Colorado)

EARL M. HEDRICK.....Wray, Colo.  
CHARLES N. JACKSON.....Greeley, Colo.  
HARRY V. KEPNER, Sc.D.....Denver, Colo.  
T. W. MONELL.....Montrose, Colo.  
CLIFFORD P. REX, D.D.S.....Alamosa, Colo.  
C. H. STEWART.....Delta, Colo.  
KATHERINE L. CRAIG.....Denver, Colo.  
(State Superintendent of Public Instruction, Ex-Officio)

## OFFICERS OF THE BOARD OF TRUSTEES

DR. KEPNER .....*President*  
DR. REX .....*Vice-President*  
MR. McMURDO .....*Secretary*  
DR. KEPNER, MR. JACKSON, MR. HEDRICK.....  
.....*Executive Committee for Colorado State Teachers College*

## OFFICERS OF ADMINISTRATION

GEORGE WILLARD FRASIER, Ph.D., LL.D.....*President of the College*  
ETHAN ALLEN CROSS, Ph.D.....*Vice-President of the College*  
WINFIELD DOCKERY ARMENTROUT, Ed.D.....*Director of Instruction*  
FRANK COVERT JEAN, Ph.D.....*Director of Graduate School*

## THE GRADUATE COUNCIL

FRANK COVERT JEAN, Ph.D.....*Chairman*  
PAUL MCKEE, Ph.D.....*Vice-Chairman*  
J. D. Heilman, Ph.D.; Earl U. Rugg, Ph.D.; O. M. Dickerson,  
Ph.D.; W. G. Bowers, Ph.D.; F. L. Whitney, Ph.D.; Annie Mc-  
Cowen, Ph.D.; President and Vice-President of the College ex-  
officio.

---

LUCY HARTT ADAMS, A.M.....*Dean of Women*  
WINFIELD DOCKERY ARMENTROUT, Ed.D.....*Director of Training Schools*  
THOMAS JEFFERSON MAHAN, Ph.D.....*Dean of Men*  
ROBERT HUGH MORRISON, A.M.....*Director of Extension Service*  
FREDERICK LAMSON WHITNEY, Ph.D.....*Director of Research*

---

ROY M. CARSON.....*Registrar*  
J. P. CULBERTSON.....*Business Agent*  
RUTH L. GUNSAUL.....*Secretary to the President*  
W. F. McMURDO.....*Treasurer*

## THE FACULTY

GEORGE WILLARD FRASIER, Ph.D., LL.D., President.

LUCY HARTT ADAMS, A.B., A.M., Dean of Women.

WINFIELD DOCKERY ARMENTROUT, A.B., A.M., Ed.D., Director of Instruction,  
Director of Training Schools, Professor of Education.

GRACE M. BAKER, B.S., A.B., A.M., Professor of Art; Head of Department.

GEORGE ALEXANDER BARKER, B.S., M.S., Professor of Geography, Head of  
Department.

SAMUEL CLAY BEDINGER, LL.B., Assistant Professor of Commercial Edu-  
cation.

\*JOHN RANDOLPH BELL, Ph.B., A.M., Litt.D., Professor of Education.

WILFRED GEORGE BINNEWIES, A.B., A.M., Ph.D., Associate Professor of So-  
ciology.

RALPH THOMAS BISHOP, A.B., A.M., Professor of Industrial Education.

MARGARET BLACKBURN, A.B., A.M., Assistant Professor of English.

\*HAROLD GRANVILLE BLUE, A.B., A.M., Professor of Education.

WILLIAM GRAY BOWERS, B.S., A.M., Ph.D., Professor of Chemistry; Head of  
Department.

PETER BROWN, A.B., Instructor in Physical Education for Men.

MARGARET ELIZABETH BRYSON, A.B., A.M., M.D., Professor of Physical Edu-  
cation for Women, Medical Adviser of Women.

ELIZABETH CARNEY, A.B., A.M., Assistant Professor of Secondary English;  
Training Teacher, Teachers College High School.

ALBERT FRANK CARTER, A.B., M.S., Professor of Library Administration;  
College Librarian.

JEAN CAVE, B.S., A.M., Professor of Physical Education for Women; Head  
of Department.

JAMES DEFORREST CLINE, Professor of Public School Music; Head of De-  
partment.

AMBROSE OWEN COLVIN, B.C.S., A.M., Professor of Commercial Education;  
Head of Department.

GEORGE EDWIN COOPER, A.B., Professor of Physical Education for Men;  
Head of Department.

ETHAN ALLEN CROSS, A.B., A.M., Ph.D., Vice-President of College; Profes-  
sor of English; Head of Department.

GENEVIEVE DAVIS, A.B., A.M., Assistant Professor of Secondary Foreign  
Languages; Training Teacher, Teachers College High School.

HELEN CALDWELL DAVIS, A.B., A.M., Principal of Teachers College Elemen-  
tary School; Professor of Elementary Education.

OLIVER MORTON DICKERSON, A.B., A.M., Ph.D., Professor of History and  
Political Science; Head of Department.

JULE STRATTON DOUBENMIER, A.B., Assistant Professor of Physical Educa-  
tion; Training Teacher, Teachers College Elementary and Secondary  
Schools.

ETHEL TURNER DULIN, B.S., Associate Professor of Primary Education;  
Training Teacher, Teachers College Elementary School.

---

\*On leave.

\*RICHARD GORDON ELLINGER, A.B., Associate Professor of Art.

GEORGE WILLIAM FINLEY, B.S., M.S., Professor of Mathematics; Head of Department.

CHESTER KIMES FLETCHER, A.B., A.M., Associate Professor of Extra-Mural Education.

CHARLES MEAD FOULK, Professor of Industrial Education.

\*CATHERINE CRATES GIBERT, A.B., A.M., Associate Professor of Foreign Languages.

ELLA FRANCES HACKMAN, B.S., Associate Professor of Secondary Social Science; Training Teacher, Teachers College High School.

SAMUEL MILO HADDEN, A.B., A.M., Professor of Industrial Education; Head of Department.

WILLIAM HENRY HARGROVE, B.S., A.M., Professor of Rural Education.

EZRA CLARENCE HARRAH, A.B., A.M., Ph.D., Associate Professor of Zoology.

MARTHA LUCILLE HARRISON, Ph.B., Associate Professor of Kindergarten-Primary Education; Training Teacher, Teachers College Elementary School.

JOSEPHINE MARY HAWES, A.B., A.M., Associate Professor of English.

JACOB DANIEL HEILMAN, A.B., Ph.D., Professor of Educational Psychology; Head of Department.

FRED LOUIS HERMAN, B.S., A.M., Associate Professor of Secondary Science; Training Teacher, Teachers College High School.

OSCAR EDWARD HERTZBERG, A.B., A.M., Ph.D., Professor of Educational Psychology.

IRA WOODS HOWERTH, A.B., A.M., Ph.D., Professor of Sociology and Economics; Head of Department.

FRANK COVERT JEAN, A.B., A.M., Ph.D., Director of Graduate School; Professor of Biology; Head of Department.

ALICE JOHNSON, Ph.B., Associate Professor of Secondary English; Training Teacher, Teachers College High School.

ELIZABETH HAYS KENDEL, A.B., Associate Professor of Secondary Mathematics; Training Teacher, Teachers College High School.

WINFIELD LEROY KNIES, A.B., A.M., Associate Professor of Commercial Education.

ELIZABETH LEHR, B.S., Associate Professor of Elementary Education; Training Teacher, Teachers College Elementary School.

LESLIE D. LINDOU, A.B., A.M., Assistant Professor of English and Literature.

ELIZABETH LUZMOOR, B.S., Associate Professor of Elementary Education; Training Teacher, Teachers College Elementary School.

GENEVIEVE LYFORD, B.H.S., B.S., A.M., Professor of Pre-School Education; Training Teacher, Teachers College Elementary School.

THOMAS JEFFERSON MAHAN, A.B., A.M., Ph.D., Dean of Men; Professor of Education.

ARTHUR ERNEST MALLORY, A.B., A.M., Professor of Mathematics.

ANNIE MARGARET MCCOWEN, A.B., B.S., A.M., Ph.D., Professor of Elementary Education; Training Teacher, Teachers College Elementary School.

---

\*On leave.

PAUL MCKEE, A.B., A.M., Ph.D., Professor of Elementary Education.

ESTELL ELGAR MOHR, B.S., Associate Professor of Public School Music.

GEORGIA ETHEL MOORE, B.S., Associate Professor of Art.

\*LUCILE MORGAN, Ph.B., A.M., Associate Professor of Art.

ROBERT HUGH MORRISON, A.B., A.M., Director of Extension Service; Professor of Extra-Mural Education.

\*JUNIA LEONORA MORSE, A.B., A.M., Head of Housing Bureau; Assistant Professor of English.

MARGARET MULRONEY, A.B., A.M., Ph.D., Professor of Foreign Languages; Head of Department.

VERA NEWBURN, B.S., M.S., Associate Professor of Home Economics; Training Teacher, Teachers College Elementary and Secondary Schools.

A. EVELYN NEWMAN, Ph.B., A.M., Ph.D., Professor of English and Literature.

ALICE R. OGLE, Instructor in Art.

LESTER EDWIN OPP, Mus.B., Assistant Professor of Music.

ORA BROOKS PEAKE, A.B., A.M., Associate Professor of History.

KENNETH FREDERICK PERRY, A.B., A.M., Assistant Professor of Industrial Education; Training Teacher, Teachers College Elementary and Secondary Schools.

ETHEL BLANCHE PICKETT, B.S., A.M., Associate Professor of Home Economics.

PAULINE CRAIG POGUE, A.B., A.M., Dean of High School Girls; Assistant Professor of Secondary History; Training Teacher, Teachers College Secondary School.

ROBERT CECIL POOLEY, A.B., A.M., Assistant Professor of English.

JAMES H. RISLEY, A.B., A.M., Professor of Extra-Mural Education.

LUCY LINDE ROSENQUIST, B.S., Ph.B., A.M., Associate Professor of Primary Education; Training Teacher, Teachers College Elementary School.

MARGARET MOORE ROUDEBUSH, Ph.B., A.B., Professor of Home Economics; Head of Department.

EARL UNDERWOOD RUGG, A.B., A.M., Ph.D., Professor of Education; Head of Department.

CHARLES RICHARD SATTGAST, B.S., A.M., Associate Professor of Extra-Mural Education.

WILLIAM H. SAUNDERS, B.S., Assistant Professor of Physical Education for Men.

OTTO WILLIAM SCHAEFER, Associate Professor of Industrial Education.

EDITH MARIE SELBERG, A.B., A.M., Assistant Professor of Biology.

JOHN HENRY SHAW, Editor of Official Publications; Instructor in Journalism.

ANGIE S. K. SOUTHARD, A.B., Instructor in Music Appreciation.

HELEN ETTA SPRINGER, B.S., Instructor in Physical Education for Women.

FLORENCE TENNEY, B.S., Instructor in Physical Education for Women.

JAMES J. THOMAS, Mus.B., Assistant Professor of Music.

A. L. THRELKELD, B.S., A.M., Professor of Extra-Mural Education.

---

\*On leave.



FRANCES TOBEY, B.S., A.B., Professor of English.

OLIVER LEONARD TROXEL, B.S., A.M., Ph.D., Professor of Education.

FLOSS ANN TURNER, Ph.B., A.M., Associate Professor of Primary Education; Training Teacher, Teachers College Elementary School.

CHARLES FRANKLIN VALENTINE, A.B., A.M., Professor of Physics; Head of Department.

SUSAN HART VAN METER, B.S., A.M., Associate Professor of Elementary Education; Training Teacher, Teachers College Elementary School.

EDWARD VON DEN STEINEN, M.D., Professor of Physical Education for Men; Medical Adviser of Men.

WALLACE THEODORE WAIT, B.S., A.M., Ph.D., Associate Professor of Educational Psychology.

LEE ROY WEST, A.B., A.M., Assistant Professor of Geography.

FREDERICK LAMSON WHITNEY, Ed.B., Ph.B., A.M., Ph.D., Director of Educational Research; Professor of Education.

EDITH GALE WIEBKING, A.B., A.M., Associate Professor of Household Arts.

GRACE HANNAH WILSON, A.B., A.M., Director of Religious Activities; Associate Professor of Education.

WILLIAM LAWRENCE WRINKLE, A.B., A.M., Principal of Teachers College High School; Professor of Secondary Social Science.

ARTHUR FRANKLIN ZIMMERMAN, A.B., A.M., B.D., Ph.D., Assistant Professor of History.

#### CONSERVATORY OF MUSIC

J. DEFOREST CLINE, Professor of Public School Music; Director of the Conservatory of Music.

EUGENE SHAW CARTER, Instructor in Violin.

J. ELBERT CHADWICK, Instructor in Piano.

LUCY B. DELBRIDGE, Instructor in Violin.

J. ALLEN GRUBB, Instructor in Voice.

BLANCHE BENNETT HUGHES, Instructor in Piano.

ESTELL ELGAR MOHR, Assistant Professor of Public School Music.

LESTER EDWIN OPP, Assistant Professor of Music.

BEVERLY IVAREA BEIL OPP, Instructor in Reed Instruments.

ANGIE S. K. SOUTHARD, Instructor in Music Appreciation.

JAMES J. THOMAS, Assistant Professor of Music.

#### THE LIBRARY

ALBERT FRANK CARTER, A.B., M.S., Head Librarian.

GRACE LILLIAN CUSHMAN, Assistant Librarian.

ANNE MAXVILLE, A.B., Assistant Librarian.

STELLA E. MCCLENAHAN, A.B., Library Assistant.

WILLIAM BIDWELL PAGE, M.D., Assistant Librarian.

ELIZABETH SCHILPP, Children's Librarian.

MADLINE GLENN WYER, A.B., Reference Librarian.

## SPECIAL FACULTY AND GENERAL LECTURERS

SUMMER QUARTER, 1930

- DR. ELLWOOD P. CUBBERLEY, Dean of the School of Education, Leland Stanford Junior University. Courses in Education, and Lecturer.
- DR. FRANKLIN G. EBAUGH, Director of Colorado Psychopathic Hospital, Denver, Colorado. Courses in Psychology.
- DR. F. L. FITZPATRICK, Head of Zoology Department, Coe College, Cedar Rapids, Iowa. Courses in Biology.
- DR. CURTIS MERRIMAN, Professor of Educational Psychology, University of Wisconsin. Courses in Psychology.
- DR. GEORGE S. COUNTS, Associate Director of the International Institute, Teachers College, Columbia. Courses in Education.
- DR. EDWARD HOWARD GRIGGS, Orchard Hill, Croton-on-Hudson, New York. Lecturer.
- DR. GEORGE EARLE RAIGUEL, Physician and Lecturer, Philadelphia, Pennsylvania. Lecturer.
- DR. JESSE SEARS, Professor of Education, Leland Stanford Junior University. Courses in Education, and Lecturer.
- DR. RALEIGH SCHORLING, Professor of Education and Supervisor of Directed Teaching and Instructional College of Education, University of Michigan. Courses in Education.
- MR. MARQUES E. REITZEL, Professor of Fine Arts, Rockford College, Rockford, Illinois.
- DR. S. R. POWERS, Professor of Natural Sciences, Teachers College, Columbia. Courses in Biology.
- DR. J. H. NEWLON, Principal of Lincoln School, Teachers College, Columbia. Courses in Education, and Lecturer.
- DR. MERLE PRUNTY, Superintendent of Schools, Tulsa, Oklahoma. Courses in Education.
- MISS GLADYS POOLE, Professor of Psychology, State Teachers College, Trenton, New Jersey. Courses in Psychology.
- MISS LOUISE NABER, Supervisor of Art Education, Phoenix, Arizona. Courses in Art.
- MISS PHOEBE KANDEL, St. Joseph's Hospital, Creighton University, Omaha, Nebraska. Courses in Nurse Teacher Training.
- MR. A. E. SHIRLING, Professor of Natural Sciences, Kansas City Teachers College, Kansas City, Missouri. Courses in Biology.
- MISS JESSIE HAMILTON, Principal, Morey Junior High School, Denver, Colorado. Courses in Education.
- MR. A. M. HINDS, Supervisor of Penmanship, Louisville Public Schools, Louisville, Kentucky. Courses in Commercial Education.

- MR. R. L. HUNT, Superintendent of Schools, Director of Secondary Education, Eastern State Teachers College, Madison, South Dakota. Courses in Education.
- MISS ANN ARVIDSON, Head of Biology Department, Iberia College, Iberia, Missouri. Courses in Biology.
- MR. R. D. McCLINTOCK, Superintendent of Schools, Julesburg, Colorado. Courses in Education.
- MISS MYRA THOMAS, Consolidated Schools, Ault, Colorado. Courses in Art.
- MR. PAUL ESSERT, Principal of Junior High School, Sterling, Colorado. Courses in Education.
- MR. G. KENT McCAULEY, Superintendent of Schools, Las Animas, Colorado. Courses in Education.
- MR. I. E. STUTSMAN, Superintendent of Schools, Greeley, Colorado. Courses in Education.
- MR. F. A. OGLE, Superintendent of Weld County Schools, Greeley, Colorado. Courses in Education.

# COLORADO STATE TEACHERS COLLEGE

Summer Quarter, 1930

Training teachers for public school service is the mission of Colorado State Teachers College. Being supported by public taxation of all the property of the State of Colorado, the College aims first to prepare teachers for all the kinds of public schools maintained within the State of Colorado. This includes rural schools, kindergartens, primary, intermediate grades, upper grades, junior high schools, and senior high schools. The College also accepts the responsibility of training supervisors for rural schools, principals, superintendents, teachers of home economics, industrial arts, fine and applied arts, training teachers, teachers of defective and atypical children, and teachers for adult night schools.

While the College is supported for the training of Colorado teachers, it welcomes students from any state or country and sends its teachers wherever they may be called. Students come to Colorado State Teachers College from many states, and its graduates go in large numbers into the neighboring states and in smaller numbers into distant states and countries.

The College recognizes as its plain duty and accepts as its function the training of students to become teachers in every type of school at present supported by the state, to meet all the demands of the public school system, to forecast those improvements and reforms which the evolution of public systems of education is to bring about in the immediate future, and to train teachers to be ready to serve in and direct the new schools which are in the process of being evolved.

## LOCATION

Teachers and students who have attended Colorado State Teachers College know of the beautiful campus and ideal location of the College. For the benefit of thousands of others into whose hands this issue of the bulletin is sent, the following information is given:

The College campus covers sixty-five and a half acres, on an eminence overlooking the city of Greeley. Greeley is a beautiful city, with 14,000 population. The streets are wide and graveled, and great spreading trees on practically all of the streets in the city form continuous avenues of shade. Attractive homes and beautiful lawns add to the appearance of the city.

Greeley is located on the Union Pacific and the Colorado & Southern railways, fifty-two miles from Denver, and just thirty miles from the gateway to Rocky Mountain National (Estes) Park. The latter forms the playground each week-end for many students at Colorado State Teachers College.

The location of the College so close to the Rocky Mountains is in itself a distinct advantage. This, together with the altitude of the city—4,567 feet above sea level—makes an ideal location for summer study. Clear, dry air, sunny days, and cool nights, distinguish Greeley from other communities where the heat and humidity make work in the summertime almost unbearable. The cool snow-laden air from the mountains sweeps over Greeley and the College campus, cooling the atmosphere and making the days pleasant, even in the middle of summer. Seldom does the night temperature go above 70 degrees, and 60 to 65 degrees at night is usual.

216. PSYCHOLOGY OF INDIVIDUAL DIFFERENCES—First half quarter. Two hours.

The study of individual differences in mental traits and their significance for the organization and instruction of all types of schools; causes of differences and suggestions for their control; age, sex and race differences in mental traits; problems of the super-normal and sub-normal child; measurement and correlation of mental traits.

222. EXPERIMENTAL TECHNIC AND ITS APPLICATION—Full quarter. Four hours.

223. RESEARCH IN EDUCATIONAL PSYCHOLOGY—Full quarter. Four hours.

224. RESEARCH IN EDUCATIONAL PSYCHOLOGY—THESIS—Full quarter. Four hours.

225. RESEARCH IN EDUCATIONAL PSYCHOLOGY—THESIS—Full quarter. Two hours.

## ENGLISH AND LITERATURE

(For detailed description of courses, see the Year Book)

Candidates for graduation should not take a required course for a half credit.

0. FUNDAMENTALS IN ENGLISH—Full quarter.

No college credit. Required of all whose scores on a standardized English test place them in the lower third of entering college freshmen.

1. CHILDREN'S LITERATURE—Intermediate Grades. Full quarter. Four hours.

Required of Intermediate majors.

2. CHILDREN'S LITERATURE—Junior High School. Full quarter. Four hours.

Required of junior high school majors choosing English as one of their two special subjects.

4. SPEAKING AND WRITING ENGLISH—Full quarter. Four hours.

Required of all students unless they pass the English Exemption Test.

6. AMERICAN LITERATURE—Full quarter. Four hours.

10. A SURVEY OF ENGLISH LITERATURE—1798-1900—Full quarter. Four hours.

11. THE ENGLISH LANGUAGE FOR TEACHERS—Either half or full quarter. Two or four hours.

12. ORAL EXPRESSION—Second half quarter. Two hours.

13. THE ART OF STORY TELLING—Either half or full quarter. Two or four hours.

14. DRAMATIC ART—Full quarter. Four hours.

Prerequisite Eng. 12.

16. TYPES OF CONTEMPORARY LITERATURE—Full quarter. Four hours.

20. ADVANCED COMPOSITION—Full quarter. Four hours.

21. AN OUTLINE OF LITERATURE—Full quarter. Four hours.

Readings in the literature of those nations whose dramas, epics, lyrics, letters, histories, novels, stories, essays, etc., have influenced the thought and culture of the world. It is intended in this course and the one following to give the freshman students a connected story of literature and also to give them a sufficient amount of reading in the form of selections and complete units of the literature itself to assure the college that its

100a. UNIT COURSE—Mental Hygiene. Second half quarter. One hour.

The unit will extend over a period of nine days from July 21 to July 31, inclusive.

The topics of this course are: Contributions of mental hygiene to the success of the parent and teacher; the emotional needs of the child and their significance; discussion of case studies of emotional needs; some phases of problem behavior; negativism in the child; the causes of day dreaming and phantasy; disorders of behavior; mental hygiene for schools and colleges.

100b. UNIT COURSE—Personality Problems in School Children. Second half quarter. One hour.

The unit will extend over a period of nine days from July 21 to July 31, inclusive.

This course reviews case study methods employed in the study of mal-adjusted school children. Typical case histories are presented, illustrating common personality disorders and problems encountered in the classroom, especially in their relation to school progress. Causes of school failures are reviewed.

Organization for mental hygiene, and the relation of these problems to the new education—the utilization of training facilities and clinics for normal schools, developments in the visiting teacher movement and in rural communities are emphasized.

One optional period of this course is to be held at the Psychopathic Hospital in Denver where illustrative child guidance problems are presented, and methods of examination reviewed.

103. PSYCHOLOGY OF ADOLESCENCE—Third or fourth year. First half quarter. Two hours.

The more important facts and principles and their application to school organization, administration, and instruction. Physical and mental changes during adolescence and their significance; instinctive and emotional tendencies; interests; growth of intelligence; development of personality; hygiene of adolescence; prediction and control of adolescent behavior; individual differences and their relation to various problems of education.

104. PSYCHOLOGY OF ELEMENTARY SCHOOL SUBJECTS—Third year. Either half or full quarter. Two or four hours.

105. PSYCHOLOGY OF SENIOR HIGH SCHOOL SUBJECTS—Third year. Either half or full quarter. Two or four hours.

107. MENTAL TESTS AND MEASUREMENTS—Full quarter. Four hours.

108a. EDUCATIONAL MEASUREMENTS IN ELEMENTARY GRADES AND JUNIOR HIGH SCHOOLS—Fourth year. Either half or full quarter. Two or four hours.

108b. EDUCATIONAL MEASUREMENTS IN THE SENIOR HIGH SCHOOL—Fourth year. Either half or full quarter. Two or four hours.

108c. TEACHERS' CLASSROOM TESTS—Third and fourth years. Full quarter. Four hours.

115. ABNORMAL PSYCHOLOGY AND MENTAL HYGIENE—Third or fourth year. Full quarter. Four hours.

117. ELEMENTARY STATISTICAL METHODS—Third, fourth and fifth years. Full quarter. Four hours.

118. GRAPHIC METHODS OF PRESENTING FACTS—Either half or full quarter. Two or four hours.

119. PSYCHOLOGY AND MEASUREMENT OF PERSONALITY TRAITS—Third or fourth year. First half quarter. Two hours.

Theories of personality based on scientific studies in psychology. The nature of personality; origin and growth of personality; distribution of traits; personality types; relation of character and personality; measurement of personality; personality traits involved in teaching; creation of personality.

213. CONFERENCE, SEMINAR AND LABORATORY COURSES. Hours depending upon amount of work done.

214. ADVANCED EDUCATIONAL PSYCHOLOGY—Full quarter. Four hours. The work of this course is limited to the psychology of learning.

168. PROBLEMS OF RELIGIOUS EDUCATION—Either half or full quarter. Two or four hours.

192. TRAINING SCHOOL PROBLEMS IN THE PROFESSIONAL EDUCATION OF TEACHERS—Second half quarter. Two hours.

III. COURSES FOR GRADUATE STUDENTS AND FOR QUALIFIED SENIOR COLLEGE STUDENTS WITH THE CONSENT OF THE INSTRUCTOR. (JUNIOR COLLEGE STUDENTS MAY NOT REGISTER FOR THESE COURSES.)

ED. 209. ADVANCED PROBLEMS OF CURRICULUM MAKING WITH SPECIAL REFERENCE TO THE MAJOR CLASSES OF ACTIVITIES—Either half or full quarter. Two or four hours.

This course is an advanced course in curriculum making. It will deal with specific applications of the techniques of curriculum making in the major fields of citizenship, economic life, health, recreation, home and family relationships, and character education. It attempts to do for this field what Ed. 258, 259, and 260 do for the tool subjects. Students interested in curriculum making may now earn up to twelve hours in the field (Ed. 208, 209, and Ed. 210). Ed. 10 or 210 desirable but not essential prerequisite.

213. PROBLEMS OF THE JUNIOR HIGH SCHOOL WITH SPECIAL REFERENCE TO THE CURRICULUM—Either half or full quarter. Two or four hours.

(Given in successive summers as Ed. 213, 214, and 215. Students may earn up to 12 hours.)

218. PROBLEMS OF SECONDARY EDUCATION—Either half or full quarter. Two or four hours.

(Given in successive summers as Ed. 216, 217, and 218. Students may earn up to 12 hours.)

223. RESEARCH IN EDUCATION—Full quarter. Four hours.

224. RESEARCH IN EDUCATION—Full quarter. Four hours.

225. RESEARCH IN EDUCATION—Full quarter. Two hours.

230. HISTORY OF PHILOSOPHY—Full quarter. Four hours.

244. PROBLEMS IN EDUCATIONAL ADMINISTRATION—Either half or full quarter. Two or four hours.

(Given in successive summers as Ed. 242, 243, and 244. Students may earn up to 12 hours.)

258. PROBLEMS OF ELEMENTARY EDUCATION (SPELLING, READING, AND LITERATURE)—Either half or full quarter. Two or four hours.

259. PROBLEMS OF ELEMENTARY EDUCATION (SOCIAL SCIENCE, PROBLEM METHOD, SOCIALIZED RECITATION)—Either half or full quarter. Two or four hours.

260. PROBLEMS OF ELEMENTARY EDUCATION (HANDWRITING, COMPOSITION, ARITHMETIC)—Either half or full quarter. Two or four hours.

## EDUCATIONAL PSYCHOLOGY

(For detailed description of courses, see the Year Book)

Candidates for graduation should not take a required course for a half credit.

2a. EDUCATIONAL PSYCHOLOGY—Full quarter. Four hours. Required of all students.

2b. EDUCATIONAL PSYCHOLOGY—Full quarter. Four hours. Required of all students.

3. CHILD DEVELOPMENT—Full quarter. Four hours.

110. EXTRA-CURRICULAR ACTIVITIES—Either half or full quarter. Two or four hours.

110b. CITIZENSHIP EDUCATION IN THE GRADES—First half quarter. Two hours.

111. PHILOSOPHY OF EDUCATION—Full quarter. Four hours. Required fourth year.

113. ORGANIZATION AND ADMINISTRATION OF THE JUNIOR HIGH SCHOOL—Full quarter. Four hours.

(Primarily for Junior High School Majors. Senior college and graduate students take Ed. 213.)

114. PRIMARY SUPERVISION—Either half or full quarter. Two or four hours.

115. ORGANIZATION AND ADMINISTRATION OF THE ELEMENTARY SCHOOL—Either half or full quarter. Two or four hours.

116. ORGANIZATION AND ADMINISTRATION OF THE SENIOR HIGH SCHOOL—Full quarter. Four hours.

117. PROBLEMS OF SCHOOL DISCIPLINE—Second half quarter. Two hours.

This course will consider recent investigations of actual concrete situations in which discipline is involved and suggested principles for promoting good discipline in the school.

118. PROBLEMS OF CHARACTER AND MORAL EDUCATION—Either half or full quarter. Two or four hours.

This course is planned to give the teacher a practical method of attacking the problem in the classroom. Approval of the present program will be made, investigations in the field canvassed, and specific techniques discussed.

123. EDUCATIONAL RESEARCH COURSE—Either half or full quarter. Two or four hours.

Arrange for this course with the head of the department. Qualified senior college students may register in the course only with the approval of the head of the department.

125. RURAL EDUCATION—Either half or full quarter. Two or four hours. Formerly Ed. 25.

127. SPECIAL RURAL SCHOOL METHODS—First half quarter. Two hours.

128. COUNTY SCHOOL ADMINISTRATION—Second half quarter. Two hours.

129. CURRENT EDUCATIONAL THOUGHT, FORMERLY ED. 229—Either half or full quarter. Two or four hours.

130. VISUAL EDUCATION—First half quarter. Two hours.

134. HISTORY OF EDUCATION IN THE UNITED STATES—Full quarter. Four hours.

142. SCHOOL ADMINISTRATION—Either half or full quarter. Two or four hours.

143. SCHOOL ADMINISTRATION—Either half or full quarter. Two or four hours.

(Replaces Ed. 112 and Ed. 120.)

144. SCHOOL PUBLICITY—First half quarter. Two hours.

145. PLATOON SCHOOL—First half quarter. Two hours.

150. FOUNDATIONS OF METHOD—Either half or full quarter. Two or four hours.

151. THE PRE-SCHOOL—Either half or full quarter. Two or four hours.

152. THE CHILD AND HIS SCHOOL—Second half quarter. Two hours.



21. RURAL SCHOOL PROBLEMS—Either half or full quarter. Two or four hours.

23. RURAL SCHOOL MANAGEMENT AND METHODS—Either half or full quarter. Two or four hours.

24. THE RURAL COMMUNITY—Second half quarter. Two hours.

28. SCHOOL AND HOME GARDENS—Second half quarter. Two hours.

52. KINDERGARTEN MATERIALS—Now included in Ed. 3c.

## II. COURSES PRIMARILY FOR SENIOR COLLEGE STUDENTS.

100a. PROBLEMS OF EDUCATION—Either half or full quarter. One or two hours.

A course dealing with major fields of knowledge, emphasizing recent developments in theory and practice. Fifteen or more lecturers.

100e. UNIT COURSES IN EDUCATION (County Superintendents)—First half quarter. One hour.

Each course runs two weeks, June 16-26, inclusive. The following units will be given: Unit 14—Records and Reports; Unit 15—Supervised Study; Unit 16—Practical Supervisory Materials for Rural Schools. Any one or more courses may be taken.

100g. UNIT COURSES IN MAJOR CLASSES OF KNOWLEDGE—One hour.

Each course runs two weeks, June 16-26, inclusive.

The following units will be given: Unit 1—Recreational Education, June 16-26; Unit 2—Economic-Industrial Education, June 30 to July 10; Unit 3—Home and Family Education, July 30 to August 10; Unit 4—Citizenship Education, August 14 to 24.

100j. UNIT COURSE IN INTERNATIONAL EDUCATION—First half quarter. One hour.

This course runs two weeks, June 16-26, inclusive.

100k. UNIT COURSE IN GUIDANCE PROBLEMS IN THE JUNIOR HIGH SCHOOL—Second half quarter. One hour.

This course runs two weeks, August 4-14, inclusive.

100l. UNIT COURSE IN EDUCATIONAL VALUES—First half quarter. One hour.

This course runs two weeks, June 16-26, inclusive.

100m. UNIT COURSE IN CITIZENSHIP EDUCATION IN THE JUNIOR HIGH SCHOOL—First half quarter. One hour.

This course runs two weeks, June 30-July 10, inclusive.

101. METHODS OF TEACHING IN THE HIGH SCHOOL—First half quarter. Two hours.

102. ADVANCED STUDENT TEACHING IN THE ELEMENTARY TRAINING SCHOOL—Full quarter. Four hours.

An additional quarter may be taken as Ed. 102d.

102a. STUDENT SUPERVISION IN THE ELEMENTARY TRAINING SCHOOL—Full quarter. Four hours.

An additional quarter may be taken as Ed. 102b.

103. STUDENT TEACHING IN THE SECONDARY TRAINING SCHOOL—Full quarter. Four hours.

An additional quarter may be taken as Ed. 103d.

103a. STUDENT SUPERVISION IN THE SECONDARY TRAINING SCHOOL—Full quarter. Four hours.

An additional quarter may be taken as Ed. 103b.

107. METHODS OF IMPROVING READING AND STUDY HABITS OF ELEMENTARY SCHOOL CHILDREN—Either half or full quarter. Two or four hours.

108. EDUCATIONAL SUPERVISION—Either half or full quarter. Two or four hours.

First half—Supervision of Skill Subjects; Second half—Supervision of Content Subjects.

41. MATERIAL AND METHODS FOR JUNIOR BUSINESS TRAINING. Second half quarter. Two hours.
106. SECRETARIAL SCIENCE—First half or full quarter. Two or four hours.
138. COMMERCIAL LAW I—Either half or full quarter. Two or four hours.
140. INVESTMENTS—First half quarter. Two hours.
150. ACCOUNTING I—First half or full quarter. Two or four hours.
151. ACCOUNTING II—Full quarter. Four hours.
157. METHODS OF TEACHING BOOKKEEPING—Second half quarter. Two hours.
165. BUSINESS ADMINISTRATION—Second half quarter. Two hours.
212. COMMERCIAL EDUCATION IN SECONDARY SCHOOLS—Full quarter. Four hours.
223. RESEARCH IN COMMERCIAL EDUCATION—Full quarter. Four hours.
224. RESEARCH IN COMMERCIAL EDUCATION—Full quarter. Four hours.
225. RESEARCH IN COMMERCIAL EDUCATION—Full quarter. Two hours.

## EDUCATION

(For detailed description of courses, see the Year Book)

Candidates for graduation should not take a required course for a half credit.

### I. COURSES PRIMARILY FOR JUNIOR COLLEGE STUDENTS.

1. INTRODUCTION TO EDUCATION—Full quarter. Four hours.  
Required of all first year students.
- 2a. PRE-TEACHING OBSERVATION IN THE ELEMENTARY SCHOOL.—Full quarter. Two hours.
- 2b. STUDENT TEACHING IN THE ELEMENTARY AND JUNIOR HIGH SCHOOL—Full quarter. Hours according to schedule. An additional quarter may be taken on Ed. 2c.
- 2c. PRE-TEACHING OBSERVATION IN THE SECONDARY SCHOOL—Full quarter. Two hours.
- 3a. LANGUAGE ARTS IN THE PRIMARY GRADES—Either half or full quarter. Two or four hours.
- 3b. SOCIAL ARTS IN THE PRIMARY GRADES—Either half or full quarter. Two or four hours.
- 3c. KINDERGARTEN-PRIMARY MATERIALS—Either half or full quarter. Two or four hours.
- 4a. LANGUAGE ARTS IN THE INTERMEDIATE GRADES—Either half or full quarter. Two or four hours.
10. PROBLEMS OF EDUCATION—Full quarter. Four hours.  
Prerequisites, Ed. 1 and Sophomore standing.
15. EDUCATIONAL GUIDANCE—First half quarter. Two hours.
16. TRAINING COURSE FOR CAMPFIRE GIRLS LEADERSHIP—Either half quarter. Two hours.
17. BOY SCOUT WORK—First half quarter. Two hours.
20. AGRICULTURAL EDUCATION—Either half or full quarter. Two or four hours.

- 108. EMBRYOLOGY—Full quarter. Four hours. Fee \$1.50.
- 223. RESEARCH IN ZOOLOGY—Full quarter. Four hours.
- 224. ZOOLOGICAL RESEARCH. Full quarter. Four hours. Fee \$3.00.
- 225. ZOOLOGICAL RESEARCH—Full quarter. Two hours. Fee \$1.00.  
A continuation of Zoological Research 224.

#### ELEMENTARY SCIENCE

- 1. ELEMENTARY SCIENCE—Full quarter. Four hours. Fee \$1.00.

#### GENERAL SCIENCE

- 1. GENERAL SCIENCE—Full quarter. Four hours. Fee \$1.50.

### CHEMISTRY

(For detailed description of courses, see the Year Book)

Candidates for graduation should not take a required course for a half credit.

- 1. GENERAL CHEMISTRY—Full quarter. Two or four hours. Fee \$2.00.
- 2. GENERAL CHEMISTRY—Full quarter. Two or four hours. Fee \$2.00.
- 7. QUALITATIVE ANALYSIS—Either half or full quarter. Two or four hours. Fee, according to hours of credit.
- 7b. QUALITATIVE ANALYSIS—Either half or full quarter. Two or four hours. Fee, according to hours of credit.
- 110. ORGANIC CHEMISTRY—Full quarter. Two or four hours. Fee, \$2.00.
- 112. FOOD CHEMISTRY—Full quarter. Two or four hours. Fee \$2.00.
- 114. QUANTITATIVE ANALYSIS—Either half or full quarter. Two or four hours. Fee, \$2.00 or \$4.00, according to course.
- 114b. QUANTITATIVE ANALYSIS—Either half or full quarter. Two or four hours. Fee, \$2.00 or \$4.00, according to course.
- 117. THE TEACHING OF CHEMISTRY—Full quarter. Four hours.
- 223. RESEARCH IN CHEMISTRY—Full quarter. Four hours.
- 224. RESEARCH IN CHEMISTRY—Full quarter. Four hours.
- 225. RESEARCH IN CHEMISTRY—Full quarter. Two hours.

### COMMERCIAL EDUCATION

(For detailed description of courses, see the Year Book)

Candidates for graduation should not take a required course for a half credit.

- 1. SHORTHAND I—First half or full quarter. Two or four hours. Credit is granted only on completion of the second quarter of Shorthand, C. E. 2.
- 2. SHORTHAND II—Full quarter. Four hours.
- 4. METHODS OF TEACHING SHORTHAND—First half quarter. Two hours.
- 11. TYPEWRITING I—First half or full quarter. Two or four hours. Credit granted only on completion of the second quarter of Typewriting, C. E. 13.
- 13. TYPEWRITING III—First half quarter. Two hours.
- 16. METHODS OF TEACHING FILING—First half quarter. Two hours.
- 36. HANDWRITING METHODS—Either half or full quarter. One or two hours.
- 37. BUSINESS MATHEMATICS—First half quarter. Two hours.

52. MAT WORK AND ELEMENTARY TUMBLING—Either half or full quarter. One hour.
60. PLAYS AND GAMES—Second half quarter. One hour.
70. ADVANCED SWIMMING—Daily. Either half quarter. One hour.
165. FOOTBALL COACHING—Five periods. First half quarter. Two hours.
166. BASKETBALL COACHING—Five periods. First half quarter. Two hours.
168. TRACK COACHING—Five periods. First half quarter. Two hours.
169. BASEBALL COACHING—Five periods. First half quarter. Two hours.
170. ORGANIZATION AND ADMINISTRATION—Four periods. First half quarter. Two hours.
172. OFFICIATING AND MANAGEMENT—Four periods. First half quarter. Two hours.
180. ATHLETIC TRAINING—First half quarter. Two hours.
- HYGIENE I—Personal Hygiene for Men. Full quarter. Four hours.

## BIOLOGY

(For detailed description of courses, see the Year Book)  
Candidates for graduation should not take a required course for a half credit

This department will offer four courses during the summer of 1930 in the Rocky Mountains at Camp Olympus, Estes Park, Colorado. See pages 40, 41 for description of the courses.

### BACTERIOLOGY

100. GENERAL BACTERIOLOGY—Full quarter. Four hours. Fee \$1.50.

### BIOLOGY

101. GENETICS AND EUGENICS—Full quarter. Four hours.  
Desirable prerequisites: General Biology, General Botany, or General Zoology.
203. BIOLOGY SEMINAR—Full quarter. Two hours.  
For graduate biology majors.
- 223—RESEARCH IN BIOLOGY—Full quarter. Four hours.
224. BIOLOGICAL RESEARCH—Full quarter. Four hours.
225. BIOLOGICAL RESEARCH—Full quarter. Two hours.  
A continuation of Biological Research 224.

### BOTANY

101. SYSTEMATIC BOTANY—Full quarter. Four hours. Fee \$1.00.
201. TAXONOMY—Full quarter. Four hours. Fee \$1.00.
223. RESEARCH IN BOTANY—Full quarter. Four hours.
224. BOTANICAL RESEARCH—Full quarter. Four hours. Fee \$3.00.
225. BOTANICAL RESEARCH—Full quarter. Two hours. Fee \$1.00.  
A continuation of Botanical Research 224.

### ZOOLOGY

3. BIRD STUDY—Full quarter. Four hours. Fee \$1.00.
107. ELEMENTARY ENTOMOLOGY—Full quarter. Four hours. Fee \$1.00.

2a. FINE ARTS METHODS FOR INTERMEDIATE GRADES AND JUNIOR HIGH SCHOOL—First half or full quarter. Two or four hours. Fee 50 cents.

3. FREEHAND DRAWING I—First half quarter. Two hours.

4. DESIGN—First half or full quarter. Two or four hours.

5. WATER COLOR PAINTING—Either half or full quarter. Two or four hours.

12. COLOR THEORY AND COMPOSITION—First half or full quarter. Two or four hours.

13. INDUSTRIAL ARTS METHODS FOR PRIMARY GRADES—First half or full quarter. Two or four hours. Fee \$1.50.

14. INDUSTRIAL ARTS METHODS FOR INTERMEDIATE GRADES AND JUNIOR HIGH SCHOOL—First half or full quarter. Two or four hours. Fee \$1.50.

16. FREEHAND DRAWING II—First half or full quarter. Two or four hours.

Prerequisite—Art 3 or equivalent.

17. LETTERING AND POSTER COMPOSITION—Either half quarter. Two hours.

100. SUPERVISION OF FINE ARTS EDUCATION—First half or full quarter. Two or four hours.

101. DRAWING FROM THE FIGURE—First half or full quarter. Two or four hours.

103. ART STRUCTURE III—First half quarter. Two hours.

105. WATER COLOB PAINTING—Either half or full quarter. Two or four hours.

106. TEACHING ART APPRECIATION—Either half quarter. Two hours.

107. CONSTRUCTIVE DESIGN—First half or full quarter. Two or four hours. Fee 50 cents.

Prerequisite—Art 4 or 4a.

108. POTTERY—First half or full quarter. Two or four hours.

116. ADVANCED FREE HAND DRAWING—First half or full quarter. Two or four hours.

117. LETTERING AND DESIGN—Either half quarter. Two hours.

120. OIL PAINTING—Either half or full quarter. Two or four hours.

122. ETCHING AND PRINTMAKING—Double period. First half quarter. Two hours.

Etching processes and experience in printing. Monotype and wood-cut processes. Printing in dark-light and in color.

223. RESEARCH IN ART—Full quarter. Four hours.

224. RESEARCH IN ART EDUCATION—Full Quarter. Four hours.

225. RESEARCH IN ART EDUCATION—Full quarter. Two hours.

## ATHLETICS AND PHYSICAL EDUCATION FOR MEN

(For detailed description of courses, see the Year Book)  
Candidates for graduation should not take a required course for a half credit

3. FIRST AID—Second half quarter. Two hours.

36. TENNIS—Three periods. Either half or full quarter. One half or one hour.

40. ELEMENTARY SWIMMING—Daily. Either half or full quarter. One or two hours.

not get a certificate until the full degree course is completed. One who finally expects to complete a degree course in some other department than the ones listed in the Limited Certificate group, may, however, begin his course as a major in one of the four curricula and at the same time elect the requirements of the first two years of the department he finally expects to major in for the degree. At the end of two years he may take his certificate with a major, for example, in upper grade teaching. He would at that time have completed all the core requirements and departmental requirements of the upper grades curriculum, and also, the departmental requirements of the first two years of his four-year major, for example, history or geography. Then he may go out and teach for a time. When he returns to the College he may register as a major in the department of his own preference, and complete his four-year curriculum receiving the degree of Bachelor of Arts in the field finally chosen. During the first two years this student would register as a major in the education department. His adviser would be the head of that department. In the third and fourth years his adviser is the head of the department finally chosen for the Bachelor of Arts curriculum.

**LENGTH OF COURSE**—The degree course is planned to occupy twelve quarters. Upon the completion of the course the degree of Bachelor of Arts and the Life Certificate will be granted. The courses leading to the (five year) Limited Certificate in kindergarten-primary, intermediate, upper grades or rural schools, occupy six quarters. Upon completion of three additional quarters and two years of successful teaching experience the Life Certificate to teach in the elementary schools will be granted. A quarter is approximately twelve weeks in length.

## THE COURSE OF STUDY IN DETAIL

### THE PROFESSIONAL CORE

Each of the courses differs somewhat from the others in the subjects required by the department, but each course contains the following subjects:

**FIRST YEAR:** Science 1 and 2, English 0 and 4 (unless excused for proficiency), 21 and 22, Hygiene 1, Education 1, Civilization 1, Music 25, Art 1, and a physical exercise course each quarter.

**SECOND YEAR:** Psychology 2a and 2b, Education 2a and 2b (pre-teaching observation and student teaching), Education 10, and a physical exercise course each quarter.

**THIRD YEAR:** History 125 and 126.

**FOURTH YEAR:** Sociology 105, Education 111, and a course in pre-teaching observation and student teaching.

The order of subjects shown above will vary some according to the section to which a student is assigned. The student should consult the diagram of courses in the department in which he is majoring. (See Year Book.)

**THE DEPARTMENTAL REQUIREMENTS:** In addition to these "core" subjects required of all students, each student is required to take a number of prescribed subjects in the department which he chooses as his major.

## ART

(For detailed description of courses, see the Year Book)  
Candidates for graduation should not take a required course for a half credit.

1. **ART APPRECIATION**—Full quarter. Two hours.
2. **FINE ARTS METHODS FOR PRIMARY GRADES**—First half or full quarter. Two or four hours. Fee 50 cents.

of this time a student may continue in the course already begun, but must meet any new requirements which may have been adopted in the meantime. This is intended to cover conditions of admission and general changes, as well as any which may have been made within the student's major department. In any event, when a student graduates from a two-year course the current Year Book shall be his guide in the work of the third and fourth years rather than the Year Book used for the first two years.

**UNIT OF COLLEGE CREDIT**—All credit toward graduation is completed in "quarter-hours." The term "quarter-hours" means a subject given one day a week through a quarter for a year, approximately twelve weeks. Most of the College courses call for four recitations a week. These are called four-hour courses. A student usually selects sixteen quarter-hours, the equivalent of four courses each meeting four times a week, as his regular work.

## THE COURSE OF STUDY

*Throughout this catalog courses numbered 1-99 are primarily first and second-year subjects; 100-199 are third and fourth-year. Those numbered 200 and above are graduate work. Senior college students must select at least two-thirds of their courses in the senior college.*

Colorado State Teachers College is a technical school whose sole function is to prepare teachers for the teaching profession in the same sense that medical colleges prepare physicians and surgeons, engineering schools prepare engineers, etc.

For this reason its curriculum is sharply differentiated from those of other technical schools and also from those of the colleges of liberal arts whose aim is to give a general rather than a specific training.

The curriculum in Colorado State Teachers College is formulated on the basis of four years of work. The following departments prepare teachers to receive the bachelor's degree:

Art	Educational Psychology
Biology	English and Literature
Chemistry	Foreign Languages
Commercial Education	Geology, Physiography, and Geog-
Education	raphy
Superintendents	History and Political Science
Principals for	Home Economics
Elementary Schools	Industrial Arts
Junior High Schools	Mathematics
Senior High Schools	Music
Supervisors and Teachers for	Physical Education and Athletics
Kindergarten-Primary	for Women
Intermediate	Physics
Upper Grades	Sociology and Economics
Rural Schools	
Training Schools	

Any student who wishes to take a two-year course leading to a Limited Certificate before the completion of a full four-year course must take such a certificate through the completion of all the core requirements and departmental requirements in one of the following curricula:

Kindergarten-Primary  
Intermediate Grades

Upper Grades  
Rural Schools

A student who expects to go straight through a four-year curriculum may major in any of the departments, but, except as noted above, can

## II. THE LIFE CERTIFICATE

Upon evidence of a satisfactory teaching experience of two years (at least sixteen months) during the life of the Limited Certificate and the completion of forty-eight hours of additional prescribed or acceptable work, a Life Certificate to teach in the elementary schools of the state will be issued to holders of the Limited Certificate.

The diploma given upon the award of a degree is a Life Certificate to teach in any of the schools of the state.

## III. THE BACHELOR OF ARTS DEGREE

The Bachelor of Arts degree is granted upon the satisfactory completion of four years of work. (See pages 57, 58 of the College Catalog and Year Book for details.)

## IV. THE MASTER OF ARTS DEGREE

See Catalog of the Graduate School.

**ADVANCED STANDING**—Students who come to the College after having done work in another college, normal school, or university, will be granted advanced standing for all such work that is of college grade, provided that the institution in question has required high school graduation as a condition for admission. Those who receive advanced standing are required to take here all of the prescribed subjects in the course they select, unless these prescribed subjects or their substantial equivalents have been taken in the colleges and universities from which the students come. Heads of departments involved have the power to excuse students from taking these prescribed subjects within the major department. The vice-president must be consulted about exemptions from core subjects. No advanced standing is granted for additional units above the usual sixteen earned in the four-year high school course. All advanced standing is provisionally allowed pending the satisfactory completion of matriculation tests and one quarter's work.

**MINIMUM RESIDENCE REQUIREMENT**—The College does not grant any certificate or degree for less than three full quarters of resident study, during which time the student must have earned at least forty-eight quarter-hours of credit. If the student's first graduation is with the Bachelor of Arts degree, he must have spent at least three quarters in residence. Students who have already taken the two-year course must spend in residence at least two additional quarters for the Bachelor of Arts degree. Correspondence students when enrolling in residence should apply to the extension department for an extension of time which will permit the completion of correspondence courses at a time when the student is not enrolled in residence courses. Students in residence are not permitted to enroll in correspondence courses during vacations except during the vacation between the end of the summer quarter and the beginning of the fall quarter.

## CREDITS

*Application for any certificate or degree must be made to the Registrar at least sixty days before the close of the quarter in which the certificate or degree is to be granted.*

**TIME LIMIT FOR COMPLETING COURSES**—A student is allowed four years after beginning resident work on a two-year course in which to complete that course under the conditions which prevailed at the time the student entered the College. Another four years is allowed to complete the work of the third and fourth years under the requirements in effect at the time the student begins resident or group extension courses of the third year. This extension of time is made to take care of those who must teach between the years of resident work. At the expiration



Failure under the ten hour rule or withdrawal on account of an average below 2.5 does not prevent the student continuing his or her work in another college. The registrar will issue a transcript of the student's record with the following note: "Colorado State Teachers College has no objection to this student's being admitted to any other college."

**THE GRADING SYSTEM**—The following grading system has been adopted by faculty action and has been in effect since October 1, 1924:

- A indicates superior work
- B indicates work above average
- C indicates average work
- D indicates work below average, but passing
- F indicates failure

A grade of A, B, C, or D, yields normal credit in any course taken. A course marked "F" carries no credit and may not be adjusted except by repetition of the course at a later time. Other markings may be used when necessary, as follows:

- "Inc.," Incomplete
- "W," Withdrawn

A course marked "Incomplete" must be made up within three months, or during the succeeding quarter, if credit is to be recorded for it. By special arrangement in advance with the vice-president or registrar and the teacher a longer time may be given. An "Inc." must be removed in any subject within three months of the closing date of the quarter, or in the case of summer students who do not attend during the regular year, twelve months. It is advisable to remove a condition early since members of the faculty are not always available for interview.

If a student withdraws from a class or from College without making formal arrangements with the vice-president, he or she will receive an F in all subjects. In either case the teachers concerned must be consulted in order that their records may be correct. This must be done before the student leaves the campus. Should the student be obliged to leave because of an emergency, a letter giving all facts shall be filed with the vice-president within ten days, and if near the end of the quarter, before the closing date. No adjustment is possible after that.

**THE SCHOOL YEAR**—The school year is divided into four quarters of approximately twelve weeks each. These are:

1. The Fall Quarter
2. The Winter Quarter
3. The Spring Quarter
4. The Summer Quarter

This division of the year is especially well suited to a teachers' college for it gives teachers in active service an opportunity equal to any of securing a complete education while actually teaching.

## CERTIFICATES AND DEGREES

### I. THE LIMITED CERTIFICATE

The Limited Certificate, valid for a period of five years in the elementary schools, will be issued on the completion of the prescribed two-year course in the following curricula: Kindergarten, Primary, Intermediate, Upper Grades, and Rural School. This applies to students matriculating after September 1, 1928. Students having pursued work prior to that time will be permitted to complete the course leading to the Life Certificate as at present constituted provided said course is completed before Sept. 1, 1931.

4. All applicants for admission are required before receiving permanent registration cards to take a series of matriculation examinations. These examinations are:
  - a. A standard intelligence test
  - b. A standard English test
  - c. A standard achievement test (knowledge of the subject-matter of the common branches taught in the public elementary and junior high schools)

The combined scores on these tests serve as a guide to the Committee on Admissions.

QUALITY OF WORK REQUIRED

The College does not encourage students who do poor work to continue in the institution. Two regulations designed to eliminate this class of students are in force. These are:

1. THE TEN-HOUR RULE. Any student in any quarter who fails to pass in ten hours of a regular program of fifteen, sixteen, or seventeen hours is warned in writing of his failure and has the following notation made on his permanent record: "Came under ten hour rule summer quarter, 1930. Warned." Such a student may continue in college on probation. For a second failure under this rule the student is notified in writing that he is indefinitely dropped from the college rolls.

A student carrying a limited program (less than fifteen hours) is required to pass in two-thirds of his program; for example, one making less than eight hours out of a twelve-hour program would get the same notice as would be given for failure to carry ten hours in a sixteen-hour program.

2. THE TWO-POINT-FIVE RULE. A student whose scholastic average is under 2.5 at the time he applies for an assignment for student teaching will not be given such an assignment. One whose scholastic average is less than 2.5 at the time he applies for graduation will not be graduated or granted a teaching certificate until he has by further residence study raised his total average to or above that mark.

NOTE: Students are not dropped from the rolls for failure under this rule except in unusual cases and then only after a full quarter's warning given by the vice-president.

NOTE: To determine the student's average the grade letters have the following values: A=5, B=4, C=3, D=2, F=1.

Typical example: Mary A. Black

Civ. 1	3 hrs	grade B=	12	
Biol. 1	3 hrs	grade C=	9	
Art. 14	4 hrs	grade A=	20	The total is 52.
Nat. St.	2 hrs	grade D=	4	Divided by 16 the re-
Eng. 4	3 hrs	grade F=	3	sult is 3.25
Phys. Ed.	1 hr	grade B=	4	
	16		52	

Typical Example: Martha B. White

Civ. 2	3 hrs	grade C=	9	
Ed. 2a	5 hrs	grade D=	10	
Music	2 hrs	grade B=	8	The total is 41.
Ed. 3c	3 hrs	grade D=	6	Divided by 17 the re-
Psych 2b	3 hrs	grade F=	3	sult is 2.41
Phys. Ed.	1 hr	grade A=	5	
	17 hrs		41	

## ADMISSION

The qualifications for admission to Colorado State Teachers College are four:

1. Graduation from a high school or secondary school fully accredited by the North Central Association of Colleges and Secondary Schools or by the State University of the state in which the high school is situated. The student must have passed in fifteen or more regular high school units. The college does not prescribe what the high school subjects shall be. It accepts any units that have been accepted for graduation by the secondary school.

ADMISSION MAY BE UNCONDITIONAL OR CONDITIONAL—Even though graduation from an accredited high school yields admission, only those whose rank in the high school graduating class is in the upper seventy-five per cent and whose scores in matriculation tests are correspondingly good are admitted unconditionally.

Candidates for admission in the lowest twenty-five per cent of the high school graduating class whose scores in matriculation tests are correspondingly low are admitted on probation for one quarter. This group is given individual attention usually in the form of personal interviews and guidance. At the end of the probationary period the status of each student thus admitted will be definitely determined.

GRADUATES OF UNACCREDITED HIGH SCHOOLS—Applicants graduating from unaccredited high schools may be conditionally admitted on probation for one quarter if they make scores in the four matriculation examinations high enough to convince the Committee on Admissions of their ability to do college work successfully. Average scores on these examinations are usually accepted for admission. Success in studies during the first quarter of residence removes the student's name from the probation list and makes him or her a regular student subject to the same rules and regulations as apply to graduates of accredited schools.

Failure to pass in ten hours of a regular fifteen or sixteen hour program in the first residence quarter cancels the conditional admission and makes it necessary for such students to withdraw indefinitely from the college.

ADULT STUDENTS NOT HIGH SCHOOL GRADUATES—Applicants twenty years of age or over who are not high school graduates are given conditional admission and placed on the probation list on the same terms as graduates of unaccredited high schools. Conditions for dropping or continued residence are also exactly the same.

2. The applicant for admission must be recommended by the principal of the high school from which the student graduated, or by some one authorized to act for him, as being to the best of his knowledge of good moral character.
3. The applicant is required to pass a health examination given by the College physicians. Those who have an active communicable disease or such physical defects as would interfere with their success as teachers are not accepted.

3. Each student shall be required to pass satisfactorily an achievement test and make a grade of not less than "C" in Ed. 2a, as prerequisites to student teaching (Ed. 2b).

4. Each student making a grade of less than "C" in student teaching shall be required to repeat the course. A student receiving a grade of "F" in two quarters work in student teaching is not permitted further enrollment in the Training Schools.

5. The required amount of student teaching in the senior college for the degree shall be one quarter taken in either the elementary school (Ed. 102) or the high school (Ed. 103) provided the teaching requirements in the junior college have been met.

6. One additional quarter of student teaching may be elected in the junior college and one in the senior college.

7. Mature students who submit the required evidence of at least three years' satisfactory experience may substitute the required student teaching for an advanced course in College upon the approval of the director of Training Schools under the following conditions:

a. A score above average on the classification test

b. A score above average on the English exemption test

c. A grade of "B" on the achievement test

d. A grade of less than "C" (the average) in two college courses within one quarter disqualifies.

e. No exemption is allowed where students have changed their major and have had no teaching experience in their new field.

f. A formal application must be made for exemption prior to the quarter of graduation and filed with the secretary of the department of training schools. All students will be held for the requirements for exemption in effect at the time of application.

g. No course taken prior to the application for exemption will be accepted for substitution; nor shall this course be a core or departmental required. This course must be taken on the campus.

#### EXTENSION DEPARTMENT

The College maintains an Extension Department to enable teachers in service to keep in touch with educational progress and to aid those teachers who have had less than standard preparation for their work to obtain a part of their professional education while teaching. For a full explanation of this work write for the Extension Bulletin. The general Catalog and Year Book explains the work of this department of the College in some detail.

Summer quarter students should understand clearly that work begun in residence and left incomplete cannot be completed through the Extension Department. Nor can unfinished work begun either in individual correspondence courses or in extension group courses be completed in residence courses.

#### PLACEMENT BUREAU

The Placement Bureau of the College looks after obtaining positions for the graduates of the College. When superintendents and other school officials request the bureau to nominate a teacher for a vacancy the bureau will recommend the best teacher available for the place and the salary offered. Teachers applying for positions through the bureau will be recommended for the very best positions they are qualified by personality, education and experience to fill. The bureau will be open and active through the entire summer.

new and modern. Effort is made to maintain such standards of excellence in the work that they may at all times be offered as a demonstration of good teaching under conditions as nearly normal as possible in all respects.

Students who expect to teach in the Training Schools during the summer quarter are asked to correspond with the principal of the elementary or the secondary school before the opening of the quarter.

Students who wish to enroll for student teaching in the College Elementary and Secondary School should enroll with the principal before April 1. Since only a limited number of students can be taken care of, preference will be given to those who are completing their course with the summer quarter. Students applying for assignments should state whether they have completed Ed. 2A or Ed. 2C satisfactorily and the grade and subject they wish to teach.

#### ENROLLMENT IN COLLEGE ELEMENTARY SCHOOL

The College Elementary School has found it impossible to enroll for summer work all children who make application. Advance registration is necessary for those who want to be assured of a place. It is quite essential that such applications be received by April fifteenth. The following data must be furnished for each child for whom application for enrollment is made.

1. Name of child
2. Date of birth
3. School and grade attended during school year 1929-30
4. Quality of work done in each subject during school year, 1929-30
5. Reason for enrolling child in summer school
6. Will child remain in school throughout the summer quarter?
7. Grade in which parent desires child to be enrolled during summer

A place will not be kept for any child beyond the opening day of the quarter except by special permission from the principal

The work of the summer school session is not planned for the purpose of enabling children to be promoted a half year or year; it is rather for the purpose of widening their experiences in directions in which they have already gone and in which their interests lead them or of fixing better in mind those phases of school work which are desirable.

In addition to the regular subjects of the curriculum, work is offered as extensively as possible in manual arts work, music, fine arts, swimming, and dancing. For certain of these classes a small fee is charged.

#### REQUIREMENTS IN STUDENT TEACHING

1. No student is eligible for student teaching whose college grades average below 2.5 prior to his application for student teaching. The required amount of student teaching for the two year course shall be one quarter. No credit will be given for less than a full quarter of teaching.

2. As a prerequisite to one quarter of student teaching (Ed. 2b) each student shall be required to spend one quarter in a systematic scheduled class in observation (Ed. 2a or 2c) with the training teacher with whom he is to teach the following quarter.

3. College students may have engagements any night in the week, provided these engagements end at 10 P. M. on Sundays and school nights; and by 12:30 on Friday and Saturday nights. Callers in the home are expected to leave on Sunday, Monday, Tuesday, Wednesday, and Thursday nights at 10:00 P. M.; on Friday and Saturday nights at 11:30 P. M.

4. College students are not permitted to attend off-campus dances unless they are approved by the college. The list of approved dances is published each week on the society page of the college paper, "The Mirror."

5. There shall be no attending of out-of-town dances without permission from the dean of women for the women or dean of men for the men. Students must return from out-of-town dances by 12:30 P. M.

6. Non-college persons may be invited to student social activities with the permission of the dean of women.

7. All chaperons must be approved by the dean of women or the dean of men.

8. The college reserves the right to decide that when the above Student Standards of Conduct are disregarded by the householder, the establishment shall be removed from its approved list.

#### SPECIAL COURSES OF LECTURES

The College Assembly and Evening Lectures—For eighteen years the College has maintained a general lecture course with a series of lectures by the most eminent teachers and lecturers obtainable. This annual series of lectures through these years has been the means for thousands of progressive teachers of keeping in touch with the newest developments in the evolution of educational philosophy and practice, from year to year.

In addition to the evening lectures, students are to have an extended opportunity to hear these outstanding teachers. There will be three lecture hours in the afternoons. Two of these will be devoted to unit courses in education, and the third to book reviews. There will be a different lecturer for each period each day.

Following up the success of a few book review hours given first in the summer quarter of 1924-25, the College is continuing a book review hour, four days a week through the quarter. Members of the regular faculty, visiting teachers, and special lecturers will review the outstanding current books in literature, education, philosophy, history and political science, science, religion, and like fields of interest. The course of lectures is open to all without registration or extra fee. One may attend all the lectures regularly or drop in only occasionally when a book of special interest to him is being discussed. There is no credit for the course.

#### TRAINING SCHOOLS

The Training School is an educational laboratory where useful problems are being worked out under the direction of skilled experts. New methods that save time, new schemes for better preparing the children for life, new curricula and courses of study are continually being considered by this school and are tried out, provided they are sound educationally. The aim is not to develop a school that is entirely different from the elementary and secondary schools of the state, but to reveal conditions as they are and as they should be. The Elementary and Secondary Training Schools strive to be leaders in the state in all that is

full quarter. Students not citizens of Colorado pay an additional fee of \$5.00 for the full quarter or \$2.50 for a half quarter. All students matriculating are required to pay a \$5.00 fee. This is paid but once and at the time of matriculation. It covers all entrance costs such as photograph, classification test, English test, achievement test, teaching aptitude test, physical examination, and the necessary blanks in the registrar's office.

All students who expect to be in the College for the full quarter are expected to make out their programs of studies for the full time. The fees, however, may be paid in two parts, one half on June 14, and the other July 21.

Books—New books may be bought from the College bookroom.

#### APPROXIMATE EXPENSE FOR FULL QUARTER

The table below represents a median of expense—neither the least possible nor the highest—and covers the principal items:

Room .....	\$ 42.00
Board .....	72.00
College Fees .....	32.00
Library Fee .....	2.00
Matriculation Fee .....	5.00
Books and Supplies.....	10.00
Total .....	<u>\$163.00</u>

#### THE DAILY PROGRAM,

For the summer quarter, the class periods are arranged as follows:

- 7:00 to 7:50—First Class Period
- 8:00 to 8:50—Second Class Period
- 9:00 to 9:50—Third Class Period
- 10:00 to 10:50—Fourth Class Period
- 11:00 to 11:50—Fifth Class Period
- 12:00 to 12:50—Sixth Class Period
- 2:00 to 2:50—Ed. 100E and 100L—Unit Courses in Education
- 3:00 to 3:50—Ed. 100E and 100J—Unit Courses in Education
- 4:00 to 4:50—Book Reviews
- 7:00 to 8:00—General Lectures in Gunter Hall

#### STUDENT STANDARD REGULATIONS

Student standard regulations are the same during the summer quarter as for the regular year, namely:

1. Men and women students are expected to observe quiet and orderly conduct in their rooming and boarding places, to take due care of the furniture and premises, and to be in their rooms by 10 o'clock on school nights. After dinner hour, it is permissible that a social time be observed, providing that it is not prolonged to interfere with study hours. Hours after 8 o'clock in the evening, except Friday and Saturday, shall be observed as study hours. There shall be quiet in the houses from 8 A. M. to 12 Noon, and from 1 P. M. to 4 P. M. on all school days.

2. On Friday and Saturday nights students may attend social functions approved by the College, but such gatherings shall close at 12. (The fact that students eat at the cafes after dances does not entitle them to return later than 12:30.)

## RECREATION

Week-end excursions into the Rocky Mountains have become so popular and so much a part of the student life that the College has extended these outing opportunities and has appointed a recreation director who will arrange trips and parties and assist students in their recreational activities.

A special booklet has been prepared showing a number of mountain trips the students may take. This booklet may be had on application. Other trips, however, may be arranged to suit the conveniences of the students, if they will make their desires known. Through the arrangement with the Rocky Mountain Transportation Company, students and faculty members of Colorado State Teachers College are given special round-trip rates.

Busses and autos leave the campus at frequent intervals on week-ends, thus affording ample opportunity for one or more individuals to go to the mountains practically when the spirit moves.

## CLASSES CONDUCTED IN THE MOUNTAINS

The College has arranged to conduct certain natural science courses in the Rocky Mountains during the summer of 1930. For details, see page 40.

## FEES AND EXPENSES

**BOARD**—Students board in private houses. The average cost of board is \$6.00 per week.

**ROOMS**—There is an extensive list of approved houses, in the vicinity of the College, for students. With two students in a room the cost is from \$30 to \$39 a quarter for each student; for one student in the room the cost is from \$39 to \$54 per quarter. Student standard regulations are the same during the summer quarter as for the regular year, save that there are no zoning restrictions.

**DORMITORIES**—The Dormitory Triangle provides accommodations for 114 women students. Each room is provided with two beds, and complete accommodations for two students. Because of the great demand in the summer for rooms for a half quarter only, the College has decided to rent dormitory rooms for either half or full quarter. These rooms will cost from \$25.00 to \$28.00 for the whole quarter, or from \$15.00 to \$18.00 for either half-quarter. Students in the dormitories are required to furnish their own bed linen and towels.

It is much more satisfactory for students to see rooms in private homes before renting them. They are urged, therefore, to come a few days before the opening of the quarter, in order that they may personally select their rooms. If information concerning rooms is desired, students may write to the head of the housing bureau.

**LIGHT HOUSEKEEPING**—A few rooms in houses allowing light house-keeping privileges are available. An extra fee of about \$1.50 per month is paid for this privilege.

**COLLEGE FEES**—The state provides funds for the maintenance of the College for three quarters in the year. The summer quarter has the use of the College buildings and equipment, but it is necessary to draw financial support largely from student fees. Each student pays \$16.00 for a half quarter, or \$32.00 for the full quarter, plus a library fee of \$2.00. The library fee is paid by all students, whether they take either a half or



graduates will be well informed in the field of literature and cultivated men and women to the extent that a general reading of literature may contribute to their culture.

This course briefly tells the story of the development of literature in the Orient (China, Japan, India, Persia, and Palestine) with a limited amount of reading in interesting pieces in good English translations. Then it passes to Greek literature with ampler readings. Latin literature follows. The course concludes with readings in the mediaeval European literature that is the beginning of the literature of modern Europe and America, extending into the modern period as far as time will permit.

22. AN OUTLINE OF LITERATURE—(Continued)—Full quarter. Four hours.

A continuation of Course 21. The story of literature illustrated with extensive readings in translation of as many of the great modern pieces of literary art as time will permit. The literature of France, Italy, Germany, Russia, the Scandinavian countries, England, Ireland, and the Americas will be included. Always the readings will be of complete pieces, not illustrative extracts, of those great literary productions that have been significant in the development of civilization and of interest to the general reader.

31. THE SHORT STORY—Full quarter. Four hours.

60. THE LITERATURE OF THE NEW TESTAMENT—(Including the Life and Teachings of Jesus.)—First half or full quarter. Two or four hours.

100. JOURNALISM—Full quarter. Four hours.

105. ORAL ENGLISH IN THE HIGH SCHOOL—First half quarter. Two hours.

106. THE TEACHING OF COMPOSITION AND LITERATURE IN THE SENIOR HIGH SCHOOL—Full quarter. Four hours.

120. LYRIC POETRY—Either half or full quarter. Two or four hours.

108. COMPARATIVE LITERATURE—Italian, Spanish, and French. Full quarter. Four hours.

112. CHILDREN'S THEATRE—First half or full quarter. Two or four hours.

129. SHAKESPEARE'S TRAGEDIES—Either half or full quarter. Two or four hours.

130. ELIZABETHAN DRAMA EXCLUSIVE OF SHAKESPEARE—Full quarter. Four hours.

131. THE INTERNATIONAL NOTE IN LITERATURE—Either half or full quarter. Two or four hours.

A special summer quarter course to be given by Dr. Newman as a result of her recent studies in Paris and the University of Dublin in the preparation of her doctor's dissertation.

132. THE DEVELOPMENT OF THE NOVEL—Full quarter. Four hours.

161. THE HISTORY, LITERATURE, AND RELIGION OF THE OLD TESTAMENT—Either half or full quarter. Two or four hours.

210. OLD ENGLISH—Full quarter. Four hours.

The beginning of a study of Old English, Grammar, and Readings.

223. RESEARCH IN ENGLISH—Full quarter. Four hours.

224. RESEARCH IN ENGLISH—Full quarter. Four hours.

225. RESEARCH IN ENGLISH—Full quarter. Two hours.

## FOREIGN LANGUAGES

(For detailed description of courses, see the Year Book)

Candidates for graduation should not take a required course for a half credit.

The department will conduct a French and Spanish table one evening a week at dinner for those interested in conversation outside of class.

## FRENCH

1. ELEMENTARY FRENCH—Full quarter. Four hours.
5. INTERMEDIATE FRENCH—Full quarter. Four hours.
53. FOREIGN LANGUAGE—(French)—Full quarter. Two hours.  
For Music majors.

## SPANISH

- 1, 2, 3. ELEMENTARY SPANISH—Full quarter. Twelve hours.  
This class meets twice daily five days a week, and covers the entire first year of College Spanish.
5. INTERMEDIATE SPANISH—Full quarter. Four hours.
105. ADVANCED SPANISH—Full quarter. Four hours.  
Covers the first quarter of third year College Spanish. The second and third quarters may be taken by correspondence.
150. SPANISH POETRY—Full quarter. Two hours.

## FOREIGN LANGUAGES

223. RESEARCH IN FOREIGN LANGUAGES—Full quarter. Four hours.
224. RESEARCH IN FOREIGN LANGUAGES—Full quarter. Four hours.
225. RESEARCH IN FOREIGN LANGUAGES—Full quarter. Two hours.

## GEOGRAPHY, PHYSIOGRAPHY AND GEOGRAPHY

(For detailed description of courses, see the Year Book)

Candidates for graduation should not take a required course for a half credit.

7. BUSINESS GEOGRAPHY—Either half or full quarter. Two or four hours.
10. METHODS AND MATERIALS IN GEOGRAPHY FOR INTERMEDIATE GRADES—Full quarter. Four hours.
15. METHODS AND MATERIALS FOR TEACHING JUNIOR HIGH SCHOOL GEOGRAPHY—Either half or full quarter. Two or four hours.
50. HOME GEOGRAPHY AND GEOGRAPHY OF COLORADO—Full quarter. Four hours.
103. CLIMATOLOGY—Either half or full quarter. Two or four hours.
124. ZOOGEOGRAPHY—Either half or full quarter. Two or four hours.
152. PROBLEMS OF SOUTH AMERICAN GEOGRAPHY—Either half or full quarter. Two or four hours.  
A course designed to fit in with the history course on Latin America (Hist. 216) and the Spanish Poetry course (Span. 150). The climatic, geologic, vegetative, animal, and racial aspects of South American Geography will be especially stressed.
154. POLITICAL GEOGRAPHY—Either half or full quarter. Two or four hours.  
This course will be an attempt to interpret the political problems of the principal present-day nations of the world in the light of their geographic location, economic resources, and economic organization. Special emphasis will be placed on the European situation as it is today, with some emphasis on China, Japan, and India.
199. CONSERVATION OF NATIONAL RESOURCES—Either half or full quarter. Two or four hours.
223. RESEARCH IN GEOGRAPHY—Full quarter. Four hours.
224. RESEARCH IN GEOGRAPHY—Full quarter. Four hours.
225. RESEARCH IN GEOGRAPHY—Full quarter. Two hours.

## HISTORY AND POLITICAL SCIENCE

(For detailed description of courses, see the Year Book)

Candidates for graduation should not take a required course for a half credit.

1. FOUNDATIONS OF AMERICAN NATIONALITY—Full quarter. Four hours.
5. EARLY MODERN EUROPE—Full quarter. Four hours.
10. SOCIAL AND ECONOMIC HISTORY OF THE UNITED STATES—Full quarter. Four hours.
117. TEACHING OF HISTORY IN THE JUNIOR AND SENIOR HIGH SCHOOLS—Full quarter. Four hours.
203. THE REFORMATION—Full quarter. Four hours.
208. THE AMERICAN REVOLUTION—Full quarter. Four hours.
216. LATIN AMERICAN HISTORY—Full quarter. Four hours.  
A course designed to fit in with the geography course on South America (Geog. 152), and Spanish Poetry (Span. 150).
221. HISTORY OF THE FAR EAST—Full quarter. Four hours.
223. RESEARCH IN HISTORY—Full quarter. Four hours.
224. RESEARCH IN HISTORY—Full quarter. Four hours.
225. RESEARCH IN HISTORY—Full quarter. Two hours.

## POLITICAL SCIENCE

2. STATE GOVERNMENT—Full quarter. Four hours.
101. HISTORY OF THE FOREIGN POLICY OF THE UNITED STATES—Full quarter. Four hours.

## HOME ECONOMICS

(For detailed description of courses, see the Year Book)

Candidates for graduation should not take a required course for a half credit

1. PATTERN DESIGNING—First half or full quarter. Two or four hours.
  3. GARMENT MAKING—Full quarter. Four hours.
  4. ELEMENTARY DRESSMAKING—Full quarter. Four hours.
  5. DRESS APPRECIATION—Full quarter. Four hours.
  - 7a. HOUSEHOLD MANAGEMENT (Theory) — Either half quarter. Two hours.
  - 7b. HOUSEHOLD MANAGEMENT (Practical)—Residence in Practice Cottage. Full quarter. Two hours.
- To be arranged at registration. Required of all majors who have finished H.E. 21, 22, and 7a.
21. FOODS AND COOKERY—Full quarter. Four hours. Fee \$3.00.
  22. FOODS AND COOKERY—Full quarter. Four hours. Fee \$3.00.  
A continuation of 21.  
This course will be offered in the summer quarter if there is sufficient demand.
  24. ELEMENTARY NUTRITION—Full quarter. Four hours.
  25. COOKERY AND TABLE SERVICE FOR HOMEMAKERS—First half or full quarter. Two or four hours. Fee \$3.50.
  27. OBSERVATION AND METHODS—Full quarter. Two hours.
  100. MILLINERY—First half or full quarter. Two or four hours.

103. COSTUME DESIGN—Full quarter. Four hours. Fee 50 cents.  
Open to all students.
106. HOME CARE OF THE SICK—Full quarter. Four hours. Fee \$1.00.
107. HOME DECORATION—Full quarter. Four hours.
124. DIETETICS—Full quarter. Four hours. Fee \$3.00.
125. CHILD CARE AND CHILD WELFARE—Full quarter. Four hours.
201. ADVANCED TEXTILES—Full quarter. Four hours.
204. HOUSING AND RELATED PROBLEMS—Full quarter. Four hours.
221. EXPERIMENTAL COOKERY—Full quarter. Four hours. Fee \$4.00.
223. RESEARCH IN HOME ECONOMICS—Full quarter. Four hours.
224. RESEARCH IN HOME ECONOMICS—Full quarter. Four hours.
225. RESEARCH IN HOME ECONOMICS—Full quarter. Two hours.
226. RESEARCH IN EXPERIMENTAL NUTRITION—Full quarter. Two hours.  
Individual problems.
240. PROBLEMS AND METHODS OF HOME ECONOMICS TEACHING—Full  
quarter. Four hours.

## INDUSTRIAL EDUCATION DEPARTMENT

(For detailed description of courses, see the Year Book)  
Candidates for graduation should not take a required course for  
a half credit

1. CONSTRUCTIVE WOODWORKING I—Either half or full quarter. Two or  
four hours. Fee \$2.00.
2. CONSTRUCTIVE WOODWORKING II—Either half or full quarter. Two or  
four hours. Fee \$2.00.
- 8a. ART METAL I—Either half or full quarter. Two or four hours.  
Fee \$2.00.
11. PROJECTION, SHADE, AND SHADOW—Either half or full quarter. Two  
or four hours. Fee \$1.00.
12. PRINCIPLES OF ARCHITECTURAL DRAWING I—Either half or full quar-  
ter. Two or four hours. Fee \$1.00.
19. WOODTURNING—Either half or full quarter. Two or four hours.  
Fee \$2.00.
31. ELEMENTS OF PRINTING I—Either half or full quarter. Two or  
four hours.
33. PRINCIPLES OF PRINTING DESIGN—Either half or full quarter. Two  
or four hours.
34. INTERMEDIATE PRINTING I—Either half or full quarter. Two or  
four hours.
36. INTERMEDIATE PRINTING III—Either half or full quarter. Two or  
four hours.
- 41a. ELEMENTARY BOOKBINDING AND LEATHERCRAFT—Either half or full  
quarter. Two or four hours. Fee \$1.00.
- 41b. ELEMENTARY BOOKBINDING AND LEATHERCRAFT—Either half or full  
quarter. Two or four hours. Fee \$1.00.
- 42a. INTERMEDIATE BOOKBINDING AND LEATHERCRAFT—Either half or  
full quarter. Two or four hours. Fee \$1.00.
- 42c. HISTORY OF BOOKBINDING—Either half or full quarter. Two or  
four hours. Fee \$1.00.

100. WOODSHOP PROBLEMS—Either half or full quarter. Two or four hours. Fee \$2.00.
104. VOCATIONAL EDUCATION—Either half or full quarter. Two or four hours.
- 109b. ART METAL AND JEWELRY II—Either half or full quarter. Two or four hours. Fee \$2.00.
117. MACHINE DRAWING I—Either half or full quarter. Two or four hours. Fee \$1.00.
120. ADVANCED WOODTURNING—Either half or full quarter. Two or four hours. On request. Fee \$2.00.
125. CLASS MANAGEMENT IN WOODWORKING—Either half or full quarter. Two or four hours. On request.
132. ADVANCED PRINTING I—Either half or full quarter. Two or four hours.
- 143a. ADVANCED BOOKBINDING—Either half or full quarter. Two or four hours. Fee \$1.00.
- 143c. ADVANCED BOOKBINDING—Either half or full quarter. Two or four hours. On request. Fee \$1.00.
- 144b. ADVANCED BOOKBINDING—Either half or full quarter. Two or four hours. Fee \$1.00.
- 144c. ADVANCED BOOKBINDING—Either half or full quarter. Two or four hours. Fee \$1.00.
201. SEMINAR IN INDUSTRIAL EDUCATION—Full quarter. Four hours. Given on request. Hours to be arranged.
223. RESEARCH IN INDUSTRIAL EDUCATION—Four hours.
224. RESEARCH IN INDUSTRIAL EDUCATION—Four hours.
225. RESEARCH IN INDUSTRIAL EDUCATION—Two hours.

## LIBRARY SCIENCE

(For detailed description of courses, see the Year Book)  
Candidates for graduation should not take a required course for a half credit.

106. CHILDREN'S LITERATURE AND JUVENILE LIBRARY SERVICE—Full quarter. Four hours.

## MATHEMATICS

(For detailed description of courses, see the Year Book)  
Candidates for graduation should not take a required course for a half credit.

1. COLLEGE ALGEBRA—Either half or full quarter. Two or four hours.
2. PLANE TRIGONOMETRY—Either half or full quarter. Two or four hours.
9. ANALYTIC GEOMETRY—Either half or full quarter. Two or four hours.
101. DIFFERENTIAL CALCULUS—Either half or full quarter. Two or four hours.
102. INTEGRAL CALCULUS—Either half or full quarter. Two or four hours.
104. THE TEACHING OF ARITHMETIC—Either half or full quarter. Two or four hours.
106. DESCRIPTIVE ASTRONOMY—Either half or full quarter. Two or four hours.
107. TEACHING JUNIOR HIGH SCHOOL MATHEMATICS—Either half or full quarter. Two or four hours.

110. GEOMETRY FOR TEACHERS—Either half or full quarter. Two or four hours.
201. DIFFERENTIAL EQUATIONS—Either half or full quarter. Two or four hours.  
Prerequisites, Differential and Integral Calculus.
223. RESEARCH IN MATHEMATICS—Full quarter. Four hours.
224. RESEARCH IN MATHEMATICS—Full quarter. Four hours.
225. RESEARCH IN MATHEMATICS—Full quarter. Two hours.

## MUSIC

(For detailed description of courses, see the Year Book)  
Candidates for graduation should not take a required course for a half credit.

- 1a. RUDIMENTS AND METHODS—Four periods. Four hours.  
Kindergarten and Primary first half—Intermediate second half.
- 1b. SIGHT SINGING—Four periods. First half quarter. Two hours.
- 1c. ADVANCED SIGHT SINGING—Four periods. Second half quarter. Two hours.  
Prerequisite Music 1b.
2. TONE THINKING AND MELODY WRITING—Four periods. Second half quarter. Two hours.  
Introductory course to beginning harmony.
3. HARMONY—Four periods. Full quarter. Four hours.  
Prerequisite Music 2.
4. HARMONY—Four periods. Full quarter. Four hours.  
Continuation of Music 3. Prerequisite, Music 3.
10. METHODS FOR TEACHING MUSIC READING—Full quarter. Four hours.  
Required. Music Majors only. Prerequisites Music 1b, 1c.
20. HISTORY OF ANCIENT AND MEDIEVAL MUSIC—Four periods. First half quarter. Two hours.
21. MODERN HISTORY—Four periods. Second half quarter. Two hours.  
Prerequisite, Music 20.
22. MUSIC APPRECIATION—Four periods. First half quarter. Two hours.
23. MUSICAL LITERATURE—Four periods. Second half quarter. Two hours.
25. AN OUTLINE OF MUSIC—Four periods. Full quarter. Two hours.
30. INDIVIDUAL VOCAL LESSONS—One-half period. Full quarter. One hour.
31. INDIVIDUAL PIANO LESSONS—One-half period. Full quarter. One hour.
32. INDIVIDUAL VIOLIN LESSONS—One-half period. Full quarter. One hour.
33. INDIVIDUAL PIPE ORGAN LESSONS—One-half period. Full quarter. One hour.
34. CLASS PIANO METHODS—Either half quarter. One hour.
35. INDIVIDUAL LESSONS FOR BRASS AND REED INSTRUMENTS—One-half period. Full quarter. One hour.

- 36. INDIVIDUAL CELLO LESSONS—One-half period. Full quarter. One hour.
- 43. ORCHESTRA—Full quarter. Two periods. One hour.
- 44. BAND—Full quarter. Two periods. One hour.
- 45. ORCHESTRAL INSTRUMENTS—Full quarter. Four periods. Two hours.
- 101. COLLEGE CHORUS—Full quarter. Two periods. One hour.
- 103. BEGINNING COUNTERPOINT—First half quarter. Four periods. Two hours.
- 104. ADVANCED COUNTERPOINT—Second half quarter. Four periods. Two hours.
- 105. BEGINNING ORCHESTRATION—First half quarter. Four periods. Two hours.
- 106. ADVANCED ORCHESTRATION—Second half quarter. Four periods. Two hours.
- 107. FORM ANALYSIS—First half quarter. Two hours.
- 108. ADVANCED FORM ANALYSIS—Second half quarter. Two hours.  
Continuation of Music 107. Required of music majors.
- 110. PRINCIPLES OF MUSIC ED.—Full quarter. Four hours.  
Prerequisites, Music 1b, 1c, 2, 10, 11.
- 111. CONDUCTING (by assignment)—Four periods. Full quarter. Two hours.
- 114. METHODS IN CONDUCTING—First half quarter. Four periods. Two hours.
- 122. APPRECIATION—(For the Concertgoer.)—First half quarter. Two periods. One hour.
- 130. INDIVIDUAL VOCAL LESSONS AND METHODS—One-half period. Full quarter. One hour.
- 131. INDIVIDUAL PIANO LESSONS AND METHODS—One-half period. Full quarter. One hour.
- 132. INDIVIDUAL VIOLIN LESSONS AND METHODS—One-half period. Full quarter. One hour.
- 133. INDIVIDUAL PIPE ORGAN LESSONS AND METHODS—One-half period. Full quarter. One hour.
- 134. INDIVIDUAL CELLO LESSONS AND METHODS—Every quarter. One hour. Fee \$24.00.
- 223. RESEARCH IN MUSIC—Full quarter. Four hours.
- 224. RESEARCH IN MUSIC—Full quarter. Four hours.
- 225. RESEARCH IN MUSIC—Full quarter. Two hours.

## NURSING EDUCATION

- 100. PRINCIPLES OF TEACHING APPLIED TO NURSING EDUCATION—First half quarter. Two hours.

This course is planned for those who are to teach principles and practice of nursing. A study of the scientific principles involved in the nursing care of patients, the selection of subject matter, the sequence of classes, the planning of lessons and demonstrations.

- 101. METHODS OF SUPERVISION APPLIED IN NURSING EDUCATION—First half quarter. Two hours.

A course planned for head nurses, supervisors, teachers and principals of schools of nursing, who need a knowledge of the principles of supervision and their application to the problems in the hospitals, schools of nursing, and public health organizations. It includes: (a) a study of the principles on which successful supervision is based, (b) investigation into the practice of successful supervision, and (c) professional problems involved.

## PHYSICAL EDUCATION AND ATHLETICS FOR WOMEN

(For detailed description of courses, see the Year Book)

Candidates for graduation should not take a required course for a half credit.

The courses offered during the summer are for those students majoring in this department. However, we offer a few general courses for those who wish an activity class during this quarter.

Those interested in getting a class on basketball coaching for girls should enroll in P. E. 100, first half. This is open to all coaches of basketball as well as majors in physical education.

A deposit will be charged for all locker keys.

### COURSES OFFERED TO THE GENERAL STUDENT

Hyg. 1a. PERSONAL HYGIENE FOR WOMEN—Four periods. Full quarter. Four hours.

Hyg. 2. MATERIALS AND METHODS FOR TEACHING HEALTH—Four periods. First half. Two hours.

The philosophy underlying various methods of teaching will be briefly considered. Texts and reference books will be examined. Opportunity will be given for each student to construct a teaching program to meet the needs of his situation.

1. CLOG AND ATHLETIC DANCING—Three periods. Either half or full quarter. One-half or one hour.

2. NATURAL DANCING—Three periods. First half or full quarter. One-half or one hour.

5. BEGINNING FOLK DANCING—Three periods. Either half or full quarter. One-half or one hour.

11. PLAYS AND GAMES—Three periods. Either half or full quarter. One-half or one hour.

13. BEGINNING TENNIS—Three periods. Either half or full quarter. One-half or one hour.

This course will consist of a study of the rules of tennis and practice in the game. Special attention will be given to the service and forearm and backhand drives.

13-A. A CONTINUATION OF P. E. 13.

The prerequisite for this course is P. E. 13, with a grade of either "A" or "B." The course will include more advanced tactics on court position and playing strategy, and the technic of strokes, including the lob, volley, half-volley, overhead smash, and chop.

26. BEGINNING SWIMMING—Four periods. Either half quarter. One hour.

27. INTERMEDIATE SWIMMING—Four periods. Either half quarter. One hour.

### COURSES PRIMARILY FOR MAJORS

100. COACHING METHODS—Five periods. Either half or full quarter. One or two hours.

103. NATURAL DANCING FOR MAJORS—Four periods. First half. One hour.

104. NATURAL DANCING FOR MAJORS—Four periods. Second half. One hour.

120. ANATOMY—Four periods. Full quarter. Four hours.

122. PHYSIOLOGY—Four periods. Full quarter. Four hours.



## PHYSICS

(For detailed description of courses, see the Year Book)  
Candidates for graduation should not take a required course for a half credit.

1. ELEMENTARY PHYSICS—THE FUNDAMENTAL NATURE OF ENERGY AND MATTER—Full quarter. Four hours. Fee \$3.00.

103. PRINCIPLES OF RADIO RECEPTION—Four periods. First half quarter. Two hours.

104. PRINCIPLES OF RADIO TRANSMISSION—Four periods. Second half quarter. Two hours.

108. METHODS OF TEACHING HIGH SCHOOL PHYSICS—First half quarter. Two hours.

118. PHOTOGRAPHY—Four periods. Second half quarter. Two hours. (Follows Visual Education 130).

223. RESEARCH IN PHYSICS—Full quarter. Four hours.

224. RESEARCH IN PHYSICS—On request. Four hours.

225. RESEARCH IN PHYSICS—On request. Two hours.

## SCIENCES

1. OUTLINES OF SCIENCE—Full quarter. Four hours.

2. OUTLINES OF SCIENCE—Full quarter. Four hours.

100—UNIT 1. THE TEACHING OF SCIENCE. First half quarter. One hour.

This work develops a pattern for the organization of an integrated program for the teaching of science through the grades of the elementary schools. Specific objectives for the work are stated in terms of acceptable generalizations from the fields of science. These are analyzed into smaller units with suggestions for grade placement. Data from studies in the psychology of learning will be considered in relation to recommendations for grade placement. Attention will also be given to the program of teacher training in science with analysis of studies relating to this field.

For students with teaching experience there will be opportunity for intensive work in the development of instructional material for the grade levels in which there is interest. Opportunity will also be offered for intensive study of problems of teacher training. For inexperienced teachers more attention will be given to demonstration of units of instruction selected for use on grade levels in which there is interest. If desired, conferences to meet the needs of teachers interested in these various phases of the work will be arranged.

100—UNIT 2. EVOLUTION. First half quarter. One hour.

How did both animate and inanimate things, even man himself come to be? This has been a question from the days of Aristotle. The ages have advanced two main answers—Special Creation and Evolution. This series of lectures and discussions will examine the validity of these two answers. It will trace the development of the idea of evolution, the factors underlying the process and the main evidences supporting it. Points of difference between Darwin's ideas and those of modern thinkers will be considered. This is an abridged course designed to give students general knowledge only of the fundamental principles of evolution. Those who wish to cover the field more completely take Biotics 100.

100—UNIT 3. THE MARVELS OF MODERN PHYSICS. Second half quarter. One hour.

This series consists of ten illustrated lectures of a popular nature, having as its object the making of the more interesting discoveries in the field of physics intelligible to those who have no knowledge of the subject. The three major contributions of physics to the present century will be discussed: the electrical nature of matter, the quantum theory of energy, and relativity. Technical expressions in mathematics will be avoided and illustrations used whenever possible.

100—UNIT 4. THE SERVICE OF SCIENCE IN PROLONGING HUMAN LIFE. Second half quarter. One hour.

The lectures in this unit will begin with a survey of early medical discoveries: the circulation of the blood, the cellular structure of organisms, the relation of micro-organisms to disease, and the antiseptics and anaesthesia in surgery. This will be followed by a brief study of the physiology of the human body, subsequently a consideration of some of the later scientific discoveries. Specific attention will be paid to the cases of malaria, yellow fever, hook worm infestation, and the social diseases. The modern knowledge of vitamins, and deficiency diseases and hormones and diseases of faulty metabolism will be reviewed. Anti-toxin, toxin anti-toxin and vaccines will be treated. The unit will close with a general summary of what has been accomplished by science in this field.

## SOCIOLOGY, ANTHROPOLOGY, AND ECONOMICS

(For detailed description of courses, see the Year Book)

Candidates for graduation should not take a required course for a half credit.

3. EDUCATIONAL SOCIOLOGY—Either half or full quarter. Two or four hours.

5. THE FAMILY—Either half or full quarter. Two or four hours.

105. INTRODUCTION TO THE SCIENCE OF SOCIOLOGY—Full quarter. Four hours.

Required of third year students.

110. PRINCIPLES OF ECONOMICS—Full quarter. Four hours.

122. COMPARATIVE RELIGION—First half or full quarter. Two or four hours.

130. THE SOCIOLOGICAL ASPECTS OF PATRIOTISM, PEACE, AND WAR—Either half or full quarter. Two or four hours.

135. RACES AND RACE PROBLEMS—Either half or full quarter. Two or four hours.

150. THE SOCIAL THEORY OF EDUCATION—Either half or full quarter. Two or four hours. Doctrines of Education based upon Organic Psychic and Social Evolution. Text, Dr. Howerth's "Theory of Education," and "The Art of Education."

223. RESEARCH IN SOCIOLOGY—Full quarter. Four hours.

224. RESEARCH IN SOCIOLOGY—Full quarter. Four hours.

225. RESEARCH IN SOCIOLOGY—Full quarter. Two hours.

## FIELD COURSES IN NATURAL SCIENCE

Students desiring to enroll in these classes are required to come first to Greeley, State Teachers College of Colorado, register, pay fees and spend three days on the campus. The next twenty-nine days are spent in the mountains. Headquarters for the classes will be at Camp Olympus. Three days in the week students take bus trips through the Rocky Mountain National Park or adjacent territory. Many of these trips are far up into the mountains above the timberline, over alpine meadows and across snow fields that endure even in August. For further information write to the College for the bulletin "*Mountain Classes in Natural Science.*"

### REGISTRATION

Students who wish to enroll for mountain classes for the first half of summer school will register Monday, June 16.

Students enrolling for the mountain classes conducted during the second half will register Monday, July 21.

These dates are arranged to permit students to enroll for mountain classes either half and campus classes the other half of the summer school. Students who wish to attend only five weeks may enroll for mountain classes either half.

THE COST

Tuition fees.....	\$16.00	
Laboratory fees, \$2.00 per course.....	4.00	
Board and lodging three days in Greeley.....	5.50	
Auto bus round trip Greeley to Estes Park.....	5.00	
Board and lodging 29 days at Olympus Inn.....	72.00	
Bus trips in Estes Park and vicinity.....	30.00	
		<hr/>
Total .....		\$132.50
Long's Peak trip, extra and optional.....	\$ 4.50	
Fees for non-residents of Colorado.....	2.50	7.00
		<hr/>
Total .....		\$139.50

THE COURSES

Instructor, A. E. SHIRLING

FIRST HALF SUMMER QUARTER, JUNE 16 TO JULY 19, 1930

Zoology 3. BIRD STUDY—Four hours.

Field work with birds of the Colorado mountains, consisting of identification, study of habits and habitat, nesting, food, etc. Field work will be supplemented with a lecture period each evening. Lectures will prepare the way for field work, and will also emphasize the characteristics of the different bird families and groups.

Botany 104. MOUNTAIN FLORA—Four hours.

In this course emphasis will be placed on mountain flora. Study periods will be spent in the field with flowers in their natural environment, determining their family characteristics and classification by means of an analytical key. Morning lectures will give a foundation for the field work and assist in the interpretation of various problems that arise. Great opportunity is given here for comparison of vegetation in the different climatic zones of northern United States and Canada to far polar regions by means of field trips into the alpine regions.

SECOND HALF SUMMER QUARTER, JULY 21 TO AUGUST 23, 1930

Elementary Science 1. NATURE STUDY—Four hours.

This course will consist of lectures and field work. The daily evening lecture periods will include discussion of the various phases of nature study as birds, flowers, animals, etc. Some attention will also be given to procedures in teaching nature material.

The daily field work will supplement the lectures, and will consist of observations and reports on various forms of plant and animal life appropriate for study in the environment of Estes Park and the Rocky Mountain National Park. Since opportunities are so favorable, some attention will also be given to the geological features along the way.

This field work will give rare opportunity for becoming familiar with mountain conditions. Three motor-bus trips a week will enable the class to see all the finer parts of the Rocky Mountain National Park. The three other days will be spent in the immediate neighborhood of Camp Olympus, Estes Park, which will be the headquarters of the class.

Botany 4. FORESTRY—Four hours.

The forests of the mountain slopes furnish a good laboratory. The study periods will be spent in the field making observations and reports on various problems pertaining to trees and forestry. Field trips will be made in conjunction with the course in Elementary Science, the time being divided between nature study and forestry.

The daily lecture period will be in the morning and will prepare the way for the field work. In these lectures various problems of forestry that are not available for direct, local observation will also be discussed. The entire course will be planned and presented from the popular rather than the technical standpoint, and the subject matter can be applied to teaching in the public schools.

## INSTRUCTIONS CONCERNING REGISTRATION

*Note*—Take this copy of the CATALOG with you when you register.

1. TIME AND PLACE FOR REGISTRATION—All registration takes place in Gunter Hall from 7:00 to 12:00 and from 1:00 to 4:00, Saturday, June 14.
2. ORDER OF REGISTRATION—Read page 2.
  - (a) Fill out the personal data card, with pen and present it for registration material.
  - (b) Fill out the temporary enrollment card with pen and have it signed by your faculty adviser. The latter card will admit you to class until you have registered permanently. It must be signed by each of your teachers before permanent registration.

The temporary card must be exchanged for permanent cards at the registrar's office. This exchange must be completed by 4:30 P. M. of the last day for permanent registration, June 20. Permanent cards, approved by the registrar, and marked "audited," by the treasurer, must be presented to your teachers not later than the date thus arranged. All students who have not complied with the provision on or before this date will be dropped from class. However, DO NOT ATTEMPT THIS EXCHANGE UNTIL YOU AND YOUR TEACHERS ARE COMPLETELY SATISFIED WITH YOUR SCHEDULE. Be sure to get a copy of further instructions to be given out on registration day.

3. STUDENT PROGRAM SIXTEEN OR SEVENTEEN HOURS—The normal program of a student is sixteen hours. An active physical exercise course giving one hour of credit may be added to any sixteen-hour program. Students whose outside work takes up a considerable part of their time should enroll for twelve to fifteen hours. Those wishing to take seventeen or eighteen hours regularly, exclusive of the exercise course must take the classification test, given at 2:00 P. M. on June 16, Little Theatre, Administration Building, unless a permit has been previously issued by the registrar. No schedules will be approved for more than eighteen hours under any condition. THIS TEST, TOGETHER WITH THE ENGLISH AND ACHIEVEMENT TESTS, MUST ALSO BE TAKEN AS A PART OF MATRICULATION.

4. The CLASSIFICATION, ENGLISH, and ACHIEVEMENT TESTS will be offered on June 16, 17, and 18, respectively, 2 P. M., Little Theatre in the Administration Building.

5. LATE REGISTRATION—A fee of \$1.00 is charged for registration after 4:00 P. M. the regular day, June 14. This fee is also exacted of students who register after the final date for permanent registration. Students more than two days late will have their programs cut in proportion to the time they miss from recitations.

6. PHYSICAL EXAMINATIONS—A health examination is required of each student who is a candidate for graduation in the summer quarter.

7. ENGLISH 0 and 4 are required of all candidates for graduation, no matter what English courses they may have had elsewhere in high school or college, unless they are excused from taking English 0 or both after passing the English Exemption Test. This test is given at the opening of each quarter, time and place to be announced. Students who have been formally graduated from any accredited normal school or teachers college are exempt from all junior college core subjects, including English 0 and 4.

8. Students who may have been admitted formerly on a basis other than satisfactory scores in matriculation tests or graduation from an accredited high school should determine their status at the present time. Likewise, all college credits must conform to standards effective September 1, 1924, as announced in recent year books.

9. HALF QUARTER COURSES—Credit is not given for a full quarter course carried for only a half quarter. Tentative conditional credit may be given by special arrangement with the teacher of the course and the registrar.

10. Candidates for graduation should NOT take a required course for half credit.

11. GRADUATE STUDENTS—The theses courses are numbered 224 and 225 in each department. These courses do not appear in the time schedule. Students must arrange with the head of department for convenient hours for conferences.

**FEEES**

Incidental fee, paid by all, \$32.00 per quarter; \$16.00 for the half quarter. Additional to non-residents of Colorado, \$5.00 for the full quarter; \$2.50 for the half quarter.

Library fee, paid by all, \$2.00.

Fees for less than a full program of sixteen hours:

1-2 quarter hours	\$ 5.00
3 quarter hours	7.50
4 quarter hours	10.00
5, 6, 7, 8 quarter hours	16.00
9 quarter hours (if taken during one half)	16.00
9 quarter hours (if taken during whole quarter)	20.00
10-11 quarter hours	25.00
12, 13, 14, 15, 16 quarter hours	32.00

(Library fee of \$2.00 to be added to above.)

*Fees for Laboratory and Materials*

*Art*

Art 2, 2a, 107	\$0.50
Art 13, 14	* 1.50

\*Fees are one-half the figures when courses are taken for half quarter.

*Biology*

Bacteriology 100	\$1.50
Biology 225	1.00
Biology 224	3.00
Botany 101, 201, 225	1.00
Botany 224	3.00
Elementary Science 1	1.00
General Science 1	1.50
Zoology 3, 107, 225	1.00
Zoology 108	1.50
Zoology 224	3.00

*Chemistry*

Chemistry, per quarter hour	\$1.00
-----------------------------	--------

*Commercial*

Commercial Ed. 11, 13, 16	\$1.00
---------------------------	--------

*Home Economics*

H. E. 21, 22, 124	\$3.00
H. E. 25	3.50
H. E. 103	.50
H. E. 106	1.00
H. E. 221	4.00

<i>Industrial Arts</i>	<i>Nursing Education.</i>
Ind. Art 1, 2, 8a, 19, 100, 109b, 120.....*\$2.00	Nursing Ed. 102, 103.....\$3.50
Ind. Art 11, 12..... 1.00	
Bookbinding, all courses..... 1.00	<i>Physics</i>
	Phys. 1, 103, 118.....\$3.00
<i>Music</i>	
Fees for individual lessons to be paid before taking lessons. For fees see Mr. Cline, Director of the Conservatory.	<i>Physical Education</i>
	P. E. 26, 27 (per half quarter)..... 2.00

---

\*Fees are one-half the figures when courses are taken for half quarter.

## SCHEDULE OF CLASSES

(Summer Quarter, 1930)

KEY to room abbreviations: Ad—Administration Building; Con—Conservatory of Music; G—Guggenheim Hall; GH—Gunter Hall; HE—Home Economics; L—Library; T—Training School.

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Qr. Hrs.	Teacher	Suggested Room
7:00—7:50						
Art 13	Industrial Art Methods for Primary Grades	TWThF	1st Hf. or Full Qr.	2-4	Moore	G-204
Art 16	Freehand Drawing II	MTThF	1st Hf. or Full Qr.	2-4	Baker	G-200
Art 116	Advanced Freehand Drawing	MTThF	1st Hf. or Full Qr.	2-4	Baker	G-200
Bot. 101	Systematic Botany (Field Trips arranged)	MTWTh	Full Quarter	4	Arvidson	Ad-302
Bot. 201	Taxonomy (Field trips arranged)	MTWTh	Full Quarter	4	Arvidson	Ad-302
Chem. 110	Organic Chemistry (Lab. by appt.)	MW	Full Quarter	2-4	Bowers	Ad-1
Com. Ed. 4	Methods of Teaching Shorthand	MTThF	1st Half Quarter	2	Bedinger	Ad-211
Com. Ed. 36	Handwriting Methods (Freeman correlated)	MTWTh	1st Half Quarter	1	Hinds	Ad-214
Com. Ed. 36	Handwriting Methods (Palmer)	MTWTh	2nd Half Quarter	1	Judy	Ad-214
Com. Ed. 138	Commercial Law I	MTThF	2nd Half Quarter	2	Bedinger	Ad-211
Ed. 1	Introduction to Education	TWThF	Full Quarter	4	McCauley	
Ed. 3b	Social Arts—Primary Grades	TWThF	Ei. Hf. or Full Qr.	2-4	Rosenquist	
Ed. 110b	Citizenship Education—Intermediate Grades	MTThF	1st Half Quarter	2	Lehr	
Ed. 114	Primary Supervision	MTWTh	Ei. Hf. or Full Qr.	2-4	Turner	
Ed. 130	Visual Education	MTWTh	1st Half Quarter	2	Valentine	
Ed. 209	Advanced Problems of Curriculum Making	MTWTh	Ei. Hf. or Full Qr.	2-4	Rugg	Ad-303
El. Sci. 1	Elementary Science (Field trips arranged)	TWThF	Full Quarter	4	Selberg	
Eng. 16	Contemporary Literature	MTThF	Full Quarter	4	Newman	
Eng. 31	The Short Story	MTWTh	Full Quarter	4	Hawes	
Eng. 60	New Testament Literature	MTThF	1st Hf. or Full Qr.	2-4	Wilson	
Eng. 112	Children's Theater	MTThF	1st Hf. or Full Qr.	2-4	Blackburn	L-Th
Eng. 132	Development of the Novel	TWThF	Full Quarter	4	Pooley	
Geog. 154	Political Geography	MTThF	Ei. Hf. or Full Qr.	2-4	West	GH-203
Hist. 203	The Reformation	TWThF	Full Quarter	4	Zimmerman	
H. E. 7a	Household Management (Theory)	MTWTh	Ei. Half Quarter	2	Newburn	HE-305
H. E. 7b	Household Management (Practical)	Daily	Full Quarter	2	Newburn	Cottage



Time and Catalogue No.	Descriptive Title of Course	Days	for Credit May Be Taken	Gr. Hrs.	Teacher	Suggested Room
H. E. 100	Millinery (Double period)	TWThF	1st Hf. or Full Qr.	2-4	Roudebush	HE-301
H. E. 124	Dietetics (Double period)	MTThF	Full Quarter	4	Pickett	HE-202
Ind. Ed. 1	Constructive Woodworking I (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Foukk	G-1
Ind. Ed. 8a	Art Metal (Lab. by appt.)	MWThF	Ei. Hf. or Full Qr.	2-4	Hadden	G-101
Ind. Ed. 31	Elements of Printing I (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Bishop	HE-102
Ind. Ed. 34	Intermediate Printing I (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Bishop	HE-102
Ind. Ed. 41a	Elementary Bookbinding and Leathercraft (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Schaefer	G-100
Ind. Ed. 42c	History of Bookbinding	MTWTh	Ei. Hf. or Full Qr.	2-4	Schaefer	G-100
Ind. Ed. 109b	Art Metal and Jewelry II (Lab. by appt.)	TWThF	Ei. Hf. or Full Qr.	2-4	Hadden	G-101
Ind. Ed. 125	Class Management in Woodworking	MTWTh	Ei. Hf. or Full Qr.	2-4	Foukk	G-1
Ind. Ed. 143c	Advanced Bookbinding (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Schaefer	G-100
Math. 9	Analytic Geometry	MTWTh	Ei. Hf. or Full Qr.	2-4	Mallory	
Math. 106	Descriptive Astronomy	MTWTh	Ei. Hf. or Full Qr.	2-4	Finley	
Mus. 110	Principles of Music Education	MTWTh	Full Quarter	4	Mohr	T-2
Mus. 114	Methods in Conducting	MTWTh	1st Half Quarter	2	Cline	Con. 14
P. E. 26	Swimming (Beginning)	TWThF	Ei. Half Quarter	1	Cave	Pool
P. E. 13	Tennis (Beginning)	TThF	Ei. Hf. or Full Qr.	1/2-1	Tenney	GH-107
Phys. 118	Photography (Listed as Physics 5 in 1929-30 Year Book)	MTWTh	2nd Half Quarter	2	Valentine	HE-106
Pol. Sci. 2	State Government	MTWTh	Full Quarter	4	Dickerson	
Psych. 2a	Educational Psychology	TWThF	Full Quarter	4	Wait	T-13
Psych. 117	Elementary Statistical Methods	TWThF	Full Quarter	4	Heilman	T-12
Science 1	Outlines of Science	MTWTh	Full Quarter	4	Herman	Ad-300
Zool. 3	Bird Study (Field trips arranged)	MTThF	Full Quarter	4	Harrah	Ad-304
<b>8:00-8:50</b>						
Art 2a	Fine Arts Methods for Intermediate and Junior High School	MTThF	1st Hf. or Full Qr.	2-4	Ogle	G-204
Art 3	Freehand Drawing I	MTWTh	1st Half Quarter	2	Reitzel	G-203
Art 5	Water Color Painting	TWThF	Ei. Hf. or Full Qr.	2-4	M. Thomas-Reitzel	G-105
Art 100	Supervision of Fine Arts Education	MTThF	1st Hf. or Full Qr.	2-4	Naber	G-202
Art 105	Water Color Painting	TWThF	Ei. Hf. or Full Qr.	2-4	M. Thomas-Reitzel	G-105
Ath. 3	First Aid	MTWTh	2nd Half Quarter	2	Von den Steinen	
Ath. 36	Recreational Tennis	MTW	Ei. Hf. or Full Qr.	1/2-1	Cooper	Courts

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Qr. Hrs.	Teacher	Suggested Room
Ath. 169	Baseball Coaching	MTWThF	1st Half Quarter	2	Brown	Field
Ath. 180	Athletic Training	MTWThF	1st Half Quarter	2	Von den Steinen	Field
Chem. 112	Food Chemistry (Lab. by appt.)	MW	Full Quarter	2-4	Bowers	Ad-1
Com. Ed. 13	Typewriting III	TWThF	1st Half Quarter	2	Knies	Ad-213
Com. Ed. 36	Handwriting Methods (Freeman Correlated)	MTWTh	1st Half Quarter	1	Hinds	Ad-214
Com. Ed. 36	Handwriting Methods (Palmer)	MTWTh	2nd Half Quarter	1	Judy	Ad-214
Com. Ed. 41	Materials and Methods for Junior Business Training	TWThF	2nd Half Quarter	2	Knies	Ad-213
Com. Ed. 140	Investments	MTWTh	1st Half Quarter	2	Colvin	Ad-211
Com. Ed. 165	Business Administration	MTWTh	2nd Half Quarter	2	Colvin	Ad-211
Ed. 10	Problems of Education	TWThF	Full Quarter	4	McCowen	
Ed. 21	Rural School Problems	MTWTh	Ei. Hf. or Full Qr.	2-4	Ogle	
Ed. 110	Extra-Curricular Activities	MTWTh	Ei. Hf. or Full Qr.	2-4	Schorling, Hamilton, Prunty	
Ed. 111	Philosophy of Education	TWThF	Full Quarter	4	Mahan	
Ed. 125	Rural Education	MTWTh	Ei. Hf. or Full Qr.	2-4	Hargrove	
Ed. 244	Problems of Educational Administration (Third advanced course)	MTWTh	Ei. Hf. or Full Qr.	2-4	Troxel	
El. Sci. 1	Elementary Science (Field trips arranged)	MTWTh	Full Quarter	4	Arvidson	Ad-301
Eng. 4	Speaking and Writing	MTWTh	Full Quarter	4	Hawes	
Eng. 12	Oral Expression	MTWTh	2nd Half Quarter	2	Blackburn	
Eng. 105	Oral English in the High School	MTThF	1st Half Quarter	2	Blackburn	
Eng. 120	Lytic Poetry	MTThF	Ei. Hf. or Full Qr.	2	Tobey	
Eng. 129	Shakespeare's Tragedies	TWThF	Ei. Hf. or Full Qr.	2-4	Lindou	
Eng. 161	Old Testament Literature	MTThF	Ei. Hf. or Full Qr.	2-4	Wilson	
For. Lang. 53	Foreign Language (French)	TTh	Full Quarter	2	Multroney	
Gen. Sci. 1	General Science (2 hrs. lab. 2 to 4 Wed.)	TWThF	Full Quarter	4	Selberg	Ad-303
Geog. 10	Methods and Materials in Geography for Intermediate Grades	TWThF	Full Quarter	4	Selberg	Ad-303
Geog. 152	Problems of South American Geography	MTThF	Full Quarter	4	West	GH-203
Hist. 10	Social and Economic History of the U. S.	MTWTh	Ei. Hf. or Full Qr.	2-4	Barker	
Hist. 208	American Revolution	MTWTh	Full Quarter	4	Peake	
H. E. 3	Garment Making (double period)	MTWTh	Full Quarter	4	Dickerson	HE-304
H. E. 4	Elementary Dressmaking (double period)	MTThF	Full Quarter	4	Wiebking	HE-304
Ind. Ed. 33	Principles of Printing Design (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Wiebking Bishop	HE-102

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Qr. Hrs.	Teacher	Suggested Room
Ind. Ed. 100	Woodshop Problems (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Foulk	G-1
Ind. Ed. 132	Advanced Printing I (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Bishop	HE-102
Math. 1	College Algebra	MTWTh	Ei. Hf. or Full Qr.	2-4	Saunders	
Math. 104	The Teaching of Arithmetic	MTWTh	Ei. Hf. or Full Qr.	2-4	Finley	
Math. 107	Teaching Junior High Mathematics	MTWTh	Ei. Hf. or Full Qr.	2-4	Mallory	
Mus. 25	Outline of Music	MTWTh	Full Quarter	2	Mohr	Con-14
Mus. 45	Orchestral Instruments	MTWTh	Full Quarter	2	Thomas	Con-6
Mus. 105	Beginning Orchestration	MTWTh	1st Half Quarter	2	Cline	Con-6
Mus. 106	Advanced Orchestration	MTWTh	2nd Half Quarter	2	Cline	Con-6
P. E. 13	Tennis (Intermediate)	TThF	Ei. Hf. or Full Qr.	1/2-1	Tenney	GH-107
P. E. 122	Physiology	TWThF	Full Quarter	4	Cave	
Phys. 1	Elementary College Physics (Lab. Wed. or Fri. 8-10)	MTTh	Full Quarter	4	Valentine	HE-106
Psych. 100a	Unit Course—Mental Hygiene, July 21 to July 31, inclusive	Daily	2nd Half Quarter	1	Ebaugh	T-13
Psych. 104	Psychology Elementary School Subjects	MTWTh	Ei. Hf. or Full Qr.	2-4	Heilman	
Psych. 115	Abnormal Psychology and Mental Hygiene	TWThF	Full Quarter	4	Wait	T-12
Psych. 214	Advanced Educational Psychology	MTWTh	Full Quarter	4	Hertzberg	
Soc. 105	Introduction to Science of Sociology	TWThF	Full Quarter	4	Binnewies	
Soc. 150	Social Theory of Education	MTWTh	Ei. Hf. or Full Qr.	2-4	Howerth	
Span. 1, 2, 3	Elementary Spanish (double period—Second recitation at 11 o'clock compulsory)	MTWThF	Full Quarter	12	Davis	
Span. 150	Spanish Poetry	MW	Full Quarter	2	Mulroney	
Zool. 108	Embryology (four hours lab. arranged)	MTThF	Full Quarter	4	Harran	Ad-304
<b>9:00-9:50</b>						
Art 1	Art Appreciation	MTThF	Full Quarter	2	Baker	G-200
Art 4	Design	MTThF	1st Hf. or Full Qr.	2-4	Naber	G-204
Art 103	Art Structure III	TWThF	1st Half Quarter	2	Thomas	G-105
Art 108	Pottery	TWThF	1st Hf. or Full Qr.	2-4	Moore	
Ath. 40	Elementary Swimming	Daily	Ei. Hf. Quarter	1	Brown-Cooper	Pool
Ath. 166	Basketball Coaching	Daily	1st Half Quarter	2	Cooper	Gym
Biol. 101	Genetics and Eugenics	MTWTh	Full Quarter	4	Jean	
Chem. 7	Qualitative Analysis (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Bowers	Ad-6
Chem. 7b	Qualitative Analysis (Lab. by appt.)	Arrange	Ei. Hf. or Full Qr.	2-4	Bowers	Ad-6

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Qr. Hrs.	Teacher	Suggested Room
Chem. 114b	Quantitative Analysis (Lab. by apt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Bowers	Ad-6
Com. Ed. 11	Typewriting I	TWThF	1st Hf. or Full Qr.	2-4	Knies	Ad-213
Com. Ed. 106	Secretarial Science	MTThF	1st Hf. or Full Qr.	2-4	Bedinger	Ad-211
Com. Ed. 151	Accounting II	MTWTh	Full Quarter	4	Colvin	Ad-214
Ed. 2a	Pre-Teaching Observation in the Elementary School	TWThF	Full Quarter	2	Davis and Training Teachers	
Ed. 4a	Language Arts—Intermediate Grades	TWThF	Ei. Hf. or Full Qr.	2-4	McCowen	
Ed. 24	The Rural Community	MTWTh	2nd Half Quarter	2	Ogle	
Ed. 28	School and Home Gardens	MTWTh	2nd Half Quarter	2	Hargrove	
Ed. 100k	Unit Course in Guidance Problems in the Junior High School (August 4-14)	Daily	2nd Half Quarter	1	Hamilton	
Ed. 100m	Unit Course in Citizenship Education, Junior High School (June 30-July 10)	Daily	1st Half Quarter	1	Hamilton	
Ed. 116	Organization and Administration of the Senior High School	MTWTh	Full Quarter	4	Schorling, McClintock, Frunty	
Ed. 118	Character Education	MTWTh	Ei. Hf. or Full Qr.	2-4	Rugg	
Ed. 127	Special Rural School Methods	MTWTh	1st Half Quarter	2	Hargrove	
Ed. 134	History of Education in the United States	TWThF	Full Quarter	4	Mahan	
Ed. 142	School Administration—First Course	MTWTh	Ei. Hf. or Full Qr.	2-4	Stutsman, Hunt	
Ed. 145	Platoon School	MTWTh	1st Half Quarter	2	Risley	
Ed. 192	Training School Problems	MTWTh	2nd Half Quarter	2	Armentrout	
Ed. 213	Problems of the Junior High School (First advanced course)	MTWTh	Ei. Hf. or Full Qr.	2-4	Troxel	
Ed. 259	Problems of Elementary Education (Soc. Sci., Problem Meth. Soc. Recit.)	MTWTh	Ei. Hf. or Full Qr.	2-4	McKee	
Eng. 0	Fundamentals in English	TWThF	Full Quarter	0	Lindou	
Eng. 11	The English Language	TWThF	Ei. Hf. or Full Qr.	2-4	Pooley	
Eng. 100	Journalism	MTWTh	Full Quarter	4	Shaw	
Eng. 108	Comparative Literature, Italian, Spanish and French	MTThF	Full Quarter	4	Tobey	
Eng. 131	The International Note in Literature	MTThF	Ei. Hf. or Full Qr.	2-4	Newman	
French 1	Elementary French	MTWTh	Full Quarter	4	Davis	
Geog. 199	Conservation of National Resources	MTThF	Ei. Hf. or Full Qr.	2-4	Barker	

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Qr. Hrs.	Teacher	Suggested Room
Hist. 1	Foundations of American Nationality	MTWTh	Full Quarter	4	Peake	
Hist. 216	Latin American History	TWThF	Full Quarter	4	Zimmerman	
H. E. 1	Pattern Designing	MTWThF	1st Hf. or Full Qr.	2-4	Roudebush	HE-301
H. E. 24	Elementary Nutrition	MTWTh	Full Quarter	4	Newburn	HE-305
H. E. 125	Child Care and Child Welfare	MTThF	Full Quarter	4	Pickett	HE-207
Hyg. 1	Hygiene for Men	MTWTh	Full Quarter	4	Von den Steinen	GH-205
Hyg. 1a	Personal Hygiene (for women)	MTWTh	Full Quarter	4	Bryson	GH-201
Ind. Ed. 2	Constructive Woodworking II (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Fouk	G-1
Ind. Ed. 11	Projection, Shade and Shadow (Lab. by appt.)	TWThF	Ei. Hf. or Full Qr.	2-4	Hadden	G-104
Ind. Ed. 12	Principles of Architectural Drawing I (Lab. by appt.)	TWThF	Ei. Hf. or Full Qr.	2-4	Hadden	G-104
Ind. Ed. 33	Principles of Printing Design (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Bishop	HE-102
Ind. Ed. 34	Intermediate Printing I (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Bishop	HE-102
Ind. Ed. 41b	Elementary Bookbinding and Leathercraft (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Schaefer	G-100
Ind. Ed. 125	Class Management in Woodworking	MTWTh	Ei. Hf. or Full Qr.	2-4	Fouk	G-1
Ind. Ed. 144b	Advanced Bookbinding	MTWTh	Ei. Hf. or Full Qr.	2-4	Schaefer	G-100
Lib. Sci. 106	Children's Literature and Juvenile Library Service	MTThF	Full Quarter	4	Schilpp	L-6
Math. 2	Plane Trigonometry	MTWTh	Ei. Hf. or Full Qr.	2-4	Saunders	Con-14
Mus. 1b	Sight-singing	MTThF	1st Half Quarter	2	Opp	Con-14
Mus. 1c	Advanced Sight-singing	MTThF	2nd Half Quarter	2	Opp	Con-6
Mus. 103	Beginning Counterpoint	MTWTh	1st Half Quarter	2	Thomas	Con-6
Mus. 104	Advanced Counterpoint	MTWTh	2nd Half Quarter	2	Thomas	Con-6
Nurs. Ed 100	Principles of Teaching Applied to Nursing Education	Daily	1st Half Quarter	2	Kandel	
P. E. 2	Natural Dancing (Beginning)	MTTh	1st Hf. or Full Qr.	1/2-1	Springer	GH-202
P. E. 120	Anatomy	TWThF	Full Quarter	4	Cave	GH-205
Phys. 103	Principles of Radio Reception	MTWTh	1st Half Quarter	2	Valentine	HE-106
Phys. 104	Principles of Radio Transmission	MTWTh	2nd Half Quarter	2	Valentine	HE-106
Psych. 2b	Educational Psychology	MTWTh	Full Quarter	4	Hertzberg	T-13

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Qr. Hrs.	Teacher	Suggested Room
Psych. 100b	Unit Course—Personality Problems in School Children, July 21 to July 31 inclusive	Daily	2nd Half Quarter	1	Ebaugh	
Psych. 103	Psychology of Adolescence	MTWTh	1st Half Quarter	2	Merriman	
Psych. 108a	Educational Measurements in Elementary Grades and Junior High School	TWThF	El. Hf. or Full Qr.	2-4	Poole	T-12
Psych. 222	Experimental Technic and Its Application	Arrange	Full Quarter	4	Whitney	Ad-300
Sci. 2	Outlines of Science	MTThF	Full Quarter	4	Harrah	
Soc. 3	Educational Sociology	TWThF	El. Hf. or Full Qr.	2-4	Binniewies	
Soc. 105	Introduction to Science of Sociology	MTWTh	Full Quarter	4	Howarth	Ad-208
Soc. 122	Comparative Religions	MTThF	1st Hf. or Full Qr.	2-4	Wilson	
Span. 5	Intermediate Spanish	MTWTh	Full Quarter	4	Muironey	
<b>10:00-10:50</b>						
Art 14	Industrial Art Methods for Intermediate and Junior High	TWThF	1st Hf. or Full Qr.	2-4	Moore	G-204
Art 101	Drawing from the Figure	MTWTh	1st Hf. or Full Qr.	2-4	Reitzel	G-105
Art 106	Teaching of Art Appreciation	MTThF	El. Half Quarter	2	Baker	G-200
Ath. 60	Plays and Games	Daily	2nd Half Quarter	1	Cooper	Gym
Ath. 52	Mat Work and Tumbling	MTWTh	El. Hf. or Full Qr.	1½-1	Von den Steinen	GH-104
Ath. 165	Football Coaching	MTWThF	1st Half Quarter	2	Saunders	
Ath. 170	Organization and Administration	MTWTh	1st Half Quarter	2	Cooper	
Chem. 1	General Chemistry (Lab. by appt.)	MW	Full Quarter	2-4	Bowers	Ad-1
Com. Ed. 1	Shorthand I	MTThF	1st Hf. or Full Qr.	2-4	Bedinger	Ad-214
Com. Ed. 138	Commercial Law I	MTWTh	1st Half Quarter	2	Hinds	Ad-211
Com. Ed. 212	Commercial Education in Secondary Schools	MTWTh	Full Quarter	4	Colvin	Ad-212
Ed. 2c	Pre-Teaching Observation in the Secondary School (academic subjects)	MTWTh	Full Quarter	2	Wrinkle and Training Teachers	
Ed. 4a	Language Arts in Intermediate Grades	TWThF	El. Hf. or Full Qr.	2-4	McCowen	
Ed. 20	Agricultural Education	MTWTh	El. Hf. or Full Qr.	2-4	Hargrove	

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Qr. Hrs.	Teacher	Suggested Room
Ed. 101	Methods of Teaching in the High School	MTWTh	1st Half Quarter	2	Stutsman	
Ed. 113	Organization and Administration of the Junior High School	MTWTh	Full Quarter	4	Schorling, Hamilton, Prunty Shaw, Risley	
Ed. 144	School Publicity	MTWTh	1st Half Quarter	2		
Ed. 218	Problems of Secondary Education (Third advanced course)	MTWTh	Ei. Hf. or Full Qr.	2-4	Troxel	
Ed. 260	Problems of Elementary Education (Hand-writing, Composition, Arithmetic)	MTWTh	Ei. Hf. or Full Qr.	2-4	McKee	
Eng. 10	English Literature, 1798-1900	MTWTh	Full Quarter	4	Hawes	
Eng. 14	Dramatic Art	MTThF	Full Quarter	4	Blackburn	
Eng. 21	An Outline of Literature to 1800	MTThF	Full Quarter	4	Newman	
Eng. 210	Old English	TWThF	Full Quarter	4	Pooley	
Geog. 7	Business Geography	MTThF	Ei. Hf. or Full Qr.	2-4	West	
Geog. 124	Zoogeography	MTThF	Ei. Hf. or Full Qr.	2-4	Barker	
Hist. 5	Early Modern Europe	MTWTh	Full Quarter	4	Peake	
H. E. 25	Cookery and Table Service for Home-makers (double period)	MTThF	1st Hf. or Full Qr.	2-4	Pickett	HE-204
H. E. 106	Home Care of the Sick	MTThF	Full Quarter	4	Wiebking	HE-304
Hyg. 1a	Personal Hygiene (for women)	MTWTh	Full Quarter	4	Bryson	GH-201
Ind. Ed. 104	Vocational Education (Lab. by appt.)	TWThF	Ei. Hf. or Full Qr.	2-4	Hadden	
Ind. Ed. 132	Advanced Printing I (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Bishop	
Math. 104	The Teaching of Arithmetic	MTWTh	Ei. Hf. or Full Qr.	2-4	Finley	
Math. 110	Geometry for Teachers	MTWTh	Ei. Hf. or Full Qr.	2-4	Mallory	
Mus. 1a	Rudiments and Methods	MTWTh	Full Quarter	4	Mohr	T-2
Mus. 2	Tonethinking and Melody Writing	MTThF	2nd Half Quarter	2	Opp	Con-6
Mus. 22	Appreciation of Music	MTThF	1st Half Quarter	2	Opp	Con-14
P. E. 1	Clog and Athletic Dancing	TThF	Ei. Hf. or Full Qr.	1/2-1	Cave	GH-107
P. E. 27	Intermediate Swimming	MTWTh	Ei. Half Quarter	1	Doubenmier	Pool
P. E. 103	Natural Dancing for Majors	MTWTh	1st Half Quarter	1	Springer	GH-202
P. E. 104	Natural Dancing for Majors	MTWTh	2nd Half Quarter	1	Springer	GH-202
Pol. Sci. 101	History of the Foreign Policy of the United States	MTWTh	Full Quarter	4	Dickerson	
Psych. 3	Child Development	TWThF	Full Quarter	4	Wait	
Psych. 107	Mental Tests and Measurements	MTWTh	Full Quarter	4	Hertzberg	T-13

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Qr. Hrs.	Teacher	Suggested Room
Psych. 108c	Classroom Tests	MTWTh	Full Quarter	4	Heilman	T-12
Soc. 5	The Family	TWThF	Ei. Hf. or Full Qr.	2-4	Binnewies	
Soc. 130	Sociological Aspects of Patriotism	MTWTh	Ei. Hf. or Full Qr.	2-4	Howarth	
Span. 105	Advanced Spanish	MTThF	Full Quarter	4	Mulroney	
Science 100	Unit Courses					
	Unit 1—The Teaching of Science, June 18-July 2	MTWThF	1st Half Quarter	1	Powers	
	Unit 2—Evolution, July 7-18	MTWThF	1st Half Quarter	1	Jean	
	Unit 3—The Marvels of Modern Physics, July 21-August 1	MTWThF	2nd Half Quarter	1	Valentine	
	Unit 4—The Service of Science in Prolonging Human Life, August 4-15	MTWThF	2nd Half Quarter	1	Fitzpatrick	
<b>11:00-11:50</b>						
Art 2	Fine Art Methods for Primary Grades	MTThF	1st Hf. or Full Qr.	2-4	Naber	G-200
Art 17	Lettering and Poster Composition	TWThF	Ei. Half Quarter	2	Moore	G-203
Art 117	Lettering and Design	TWThF	Ei. Half Quarter	2	Moore	G-203
Art 120	Oil Painting (Double period. Lab. by Appt.)	MTWTh	1st Hf. or Full Qr.	2-4	Reitzel	G-105
Ath. 168	Track Coaching	MTWThF	1st Half Quarter	2	Saunders	Field
Ath. 172	Officiating and Management	MTWTh	1st Half Quarter	2	Cooper	
Bact. 100	General Bacteriology (Three hrs. Lab. 2-5 Tuesday)	TWThF	Full Quarter	4	Selberg	Ad-303
Chem. 2	General Chemistry (Lab. by appt.)	MW	Full Quarter	2-4	Bowers	Ad-1
Chem. 114	Quantitative Analysis (Lab. by appt.)	Arrange	Ei. Hf. or Full Qr.	2-4	Bowers	Ad-6
Chem. 117	Teaching of Chemistry	Arrange	Full Quarter	4	Bowers	Ad-1
Com. Ed. 2	Shorthand II	MTThF	Full Quarter	4	Bedinger	Ad-212
Com. Ed. 37	Business Mathematics	MTWTh	1st Half Quarter	2	Hinds	Ad-211
Com. Ed. 150	Accounting I	MTWTh	1st Hf. or Full Qr.	2-4	Colvin	Ad-214
Ed. 2c	Pre-teaching Observation in the Secondary School (Special subjects)	MTWTh	Full Quarter	2		
Ed. 3c	Kindergarten-Primary Materials	MTWTh	1st Half Quarter	2	Lyford	
Ed. 15	Educational Guidance	MTWTh	1st Half Quarter	2	Essert	
Ed. 23	Rural School Management	MTWTh	Ei. Hf. or Full Qr.	2-4	Hargrove	
Ed. 107	Methods of Improving Reading	TWThF	Ei. Hf. or Full Qr.	2-4	Davis	
Ed. 108	Educational Supervision	TWThF	Ei. Hf. or Full Qr.	2-4	McCowen	



Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Gr. Hrs.	Teacher	Suggested Room
Ed. 111	Philosophy of Education	TWThF	Full Quarter	4	Mahan	
Ed. 115	Organization and Administration of the Elementary School	MTWTh	Ei. Hf. or Full Qr.	2-4	Risley, McClintock	
Ed. 129	Current Educational Thought	MTWTh	Ei. Hf. or Full Qr.	2-4	Visiting Instructors	
Ed. 143	School Administration—Second Course (School Bldgs., Educ. Finance)	MTWTh	Ei. Hf. or Full Qr.	2-4	Stutsman, Hunt	
Ed. 152	The Child and the School	MTWTh	2nd Half Quarter	2	Lyford	
Ed. 230	History of Philosophy	MTWTh	Full Quarter	4	Armentrout	
Ed. 258	Problems of Elementary Education (Spelling, Reading, Literature)	MTWTh	Ei. Hf. or Full Qr.	2-4	McKee	
El. Sci. 1	Elementary Science (Field trips arranged)	MTWTh	Full Quarter	4	Arvidson	
Eng. 2	Literature for the Junior High School	MTThF	Full Quarter	4	Tobey	
Eng. 20	Advanced Composition	TWThF	Full Quarter	4	Lindou	
Eng. 22	An Outline of Literature (19th Century)	MTThF	Full Quarter	4	Newman	
Eng. 106	English in the High School	MTThF	Full Quarter	4	Carney	
Eng. 130	Elizabethan Drama	MTWTh	Full Quarter	4	Hawes	
French 5	Intermediate French	MTWTh	Full Quarter	4	Mulroney	
Geog. 15	Methods and Materials for Teaching Junior High School Geography	MTThF	Ei. Hf. or Full Qr.	2-4	West	
Hist. 117	Teaching of History in Junior and Senior High Schools	MTWTh	Full Quarter	4	Dickerson	
Hist. 221	History of the Far East	MTWTh	Full Quarter	4	Peake	
H. E. 5	Dress Appreciation	MTThF	Full Quarter	4	Wiebking	HE-304
H. E. 103	Costume Design	MTThF	Full Quarter	4	Wiebking	HE-304
Hys. 2	Materials and Methods for Teaching Health	MTWTh	1st Half Quarter	2	Bryson	
Ind. Ed. 19	Woodturning (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Foulk	G-1
Ind. Ed. 31	Elements of Printing I (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Bishop	HE-102
Ind. Ed. 36	Intermediate Printing III (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Bishop	HE-102
Ind. Ed. 42a	Intermediate Bookbinding and Leathercraft (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Schaefer	G-100
Ind. Ed. 117	Machine Drawing I (Lab. by appt.)	TWThF	Ei. Hf. or Full Qr.	2-4	Hadden	G-104
Ind. Ed. 120	Advanced Woodturning (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Foulk	G-1
Ind. Ed. 143a	Advanced Bookbinding (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Schaefer	G-100
Ind. Ed. 144c	Advanced Bookbinding (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Schaefer	G-100
Math. 101	Differential Calculus	MTWTh	Ei. Hf. or Full Qr.	2-4	Mallory	

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Qr. Hrs.	Teacher	Suggested Room
Math. 102	Integral Calculus	MTWTh	Ei. Hf. or Full Qr.	2-4	Mallory	
Math. 201	Differential Equations	MTWTh	Ei. Hf. or Full Qr.	2-4	Finley	
Mus. 3	Beginning Harmony	MTWTh	Full Quarter	4	Thomas	Con-14
Mus. 107	Form Analysis	MTThF	1st Half Quarter	2	Opp	
Mus. 108	Form Analysis	MTThF	2nd Half Quarter	2	Opp	
Nurs. Ed. 101	Methods of Supervision Applied in Nursing Education	Daily	1st Half Quarter	2	Kandel	
P. E. 11	Plays and Games	TThF	Ei. Hf. or Full Qr.	1/2-1	Cave	GH-107
P. E. 26	Swimming (Beginning)	MTWTh	Ei. Half Quarter	1	Springer	Pool
Phys. 108	Methods of Teaching High School	MTWTh	1st Half Quarter	2	Valentine	HE-106
Psych. 2a	Educational Psychology	TWThF	Full Quarter	4	Poole	T-13
Psych. 105	Psychology Senior High School Subjects	TWThF	Ei. Hf. or Full Qr.	2-4	Wait	
Psych. 119	Psychology and Measurements of Personal- ity Traits	MTWTh	1st Half Quarter	2	Merriman	T-12
Soc. 110	Principles of Economics	TWThF	Full Quarter	4	Binnewies	
Soc. 135	Races and Race Problems	MTWTh	Ei. Hf. or Full Qr.	2-4	Howerth	
Span. 1, 2, 3	Elementary Spanish (double period. First recitation at 8 o'clock compulsory)	TWThF	Full Quarter	12	Davis	
<b>12:00-12:50</b>						
Art 2	Fine Arts Methods for Primary Grades	MTThF	1st Hf. or Full Qr.	2-4	Naber	G-200
Art 12	Color Theory and Composition	MTWTh	1st Hf. or Full Qr.	2-4	Reitzel	G-105
Art 107	Constructive Design	MTThF	1st Hf. or Full Qr.	2-4	Ogie	G-204
Com. Ed. 16	Methods of Teaching Filing	TWThF	1st Half Quarter	2	Knies	Ad-214
Com. Ed. 157	Methods of Teaching Bookkeeping	TWThF	2nd Half Quarter	2	Knies	Ad-214
Ed. 1	Introduction to Education	TWThF	Full Quarter	4	McCauley	
Ed. 3a	Language Arts—Primary Grades	MTWTh	Ei. Hf. or Full Qr.	2-4	Dulin	
Ed. 3c	Kindergarten—Primary Materials	MTWTh	2nd Half Quarter	2	Harrison	
Ed. 100e	Unit Course—County Superintendents, No. 14 (School Records and Reports), June 16-26	Daily	1st week, TTh2dwk.	1st Half Quarter	1	Troxel

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Gr. Hrs.	Teacher	Suggested Room
Ed. 100g	Unit Courses in Major Classes of Knowledge Unit 1—Recreational Education (June 16-26)	Daily	1st Half Quarter	1	Stutsman	
	Unit 2—Economic Industrial Education (June 30-July 10)	Daily	1st Half Quarter	1	Binnewies	
	Unit 3—Home and Family Education (July 30-August 10)	Daily	2nd Half Quarter	1	Roudebush	
	Unit 4—Citizenship Education (August 14-24)	Daily	2nd Half Quarter	1	Rugg	
Ed. 117	School Discipline	MTWTh	2nd Half Quarter	2	Hunt	
Ed. 128	County School Administration	MTWTh	2nd Half Quarter	2	Ogle	
Ed. 150	Foundations of Method	MTWTh	Ei. Hf. or Full Qr.	2-4	Risley, McClintock	
Ed. 151	Pre-School Education	MTWTh	Ei. Hf. or Full Qr.	2-4	Lyford	
Ed. 168	Problems of Religious Education	MTWTh	Ei. Hf. or Full Qr.	2-4	Wilson	
Eng. 1	Literature for the Elementary School	MTThF	Full Quarter	4	Tobey	
Eng. 4	Speaking and Writing	MTThF	Full Quarter	4	Pooley	
Eng. 6	American Literature	TWThF	Full Quarter	4	Lindou	
Eng. 13	Story Telling	MTThF	Ei. Hf. or Full Qr.	2-4	Stewart	
Eng. 132	Development of the Novel	TWThF	Full Quarter	4	Pooley	
Geog. 50	Home Geography and Geography of Colo.	MTThF	Full Quarter	4	Barker	
Geog. 103	Climatology	MTThF	Ei. Hf. or Full Qr.	2-4	Pogue	
H. E. 27	Observation and Methods	Arrange	Full Quarter	2	Newburn	HE-305
H. E. 107	Home Decoration	MTThF	Full Quarter	4	Wiebking	HE-304
Ind. Ed. 201	Seminar	MTThF	Full Quarter	4	Hadden	
Mus. 10	Methods for Teaching Music	MTWTh	1st Half Quarter	2	Mohr	T-2
Mus. 20	History of Ancient Music	MTWTh	2nd Half Quarter	2	Cline	Con-14
Mus. 21	History of Modern Music	MTWTh	2nd Half Quarter	2	Cline	Con-14
Mus. 23	Music Literature	MTThF	2nd Half Quarter	2	Opp	Con-14
P. E. 5	Folk Dancing (Beginning)	TThF	Ei. Hf. or Full Qr.	1½-1	Cave	GH-107
P. E. 26	Swimming (Beginning)	MTWTh	Ei. Half Quarter	1	Springer	Pool
Psych. 2b	Educational Psychology	TWThF	Full Quarter	4	Poole	T-13
Psych. 108b	Educational Measurements in Senior High School	MTWTh	Ei. Hf. or Full Qr.	2-4	Hertzberg	T-12
Psych. 118	Graphic Methods	MTWTh	Ei. Hf. or Full Qr.	2-4	Bishop	G-106
Psych. 216	Psychology of Individual Differences	MTWTh	1st Half Quarter	2	Merriman	
Zool. 107	Elementary Entomology (Three hrs. Lab. by arrangement)	MTThF	1st Half Quarter	4	Harrah	Ad-304

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Qr. Hrs.	Teacher	Suggested Room
<b>2:00-2:50</b>						
Art 122	Etching and Printmaking (double period)	TTh	1st Half Quarter	2	Thomas	G-204
Ath. 70	Advanced Swimming	Daily	EI. Half Quarter	1	Brown, Cooper	Pool
Ed. 16	Camp Fire Leadership	MTWTh	EI. Half Quarter	2	Lee	
Ed. 17	Boy Scoutmaster's Training Course	MTWTh	1st Half Quarter	2	Moore	
Ed. 100e	Unit Course—County Superintendents, No. 15 (Supervised Study), June 16-26	Daily	1st Half Quarter	1	Mahan	
Ed. 100L	Unit Course in Educational Values, June 16-26	Daily	1st Half Quarter	1	Counts	
Ed. 223	Research in Education—1st quarter—Thesis course for graduate students	MTWTh	Full Quarter	4	Whitney	HE-207
H. E. 21	Foods and Cookery (double period)	MTThF	Full Quarter	4	Pickett	HE-304
H. E. 201	Advanced Textiles	MTThF	Full Quarter	4	Wiebking	HE-305
H. E. 226	Research in Nutrition	MT	Full Quarter	2	Newburn	
H. E. 240	Problems and Methods of Home Economics Teaching	MTWTh	Full Quarter	4	Roudebush	HE-301
Mus. 122	Appreciation of Music for the Concertgoer	TTh	1st Half Quarter	1	Southard	Con-14
P. E. 100	Coaching Methods	MTWThF	EI. Hf. or Full Qr.	1-2	Tenney	GH-107
<b>3:00-3:50</b>						
Ed. 100e	Unit Course—County Superintendents, No. 16, Practical Supervisory Methods for Rural Schools, June 16-26	Daily	1st Half Quarter	1	Og'le	
Ed. 100j	Unit Course—International Education, June 16-26	Daily	1st Half Quarter	1	Counts	HE-301
H. E. 204	Housing and Its Related Problems	MTWTh	Full Quarter	4	Roudebush	HE-202
H. E. 221	Experimental Cookery	MTThF	Full Quarter	4	Pickett	Con-14
Mus. 43	Orchestra	MW	Full Quarter	1	Thomas	Con-14
Mus. 44	Band	TTh	Full Quarter	1	Thomas	GH-107
P. E. 13a	Intermediate Tennis	MTTh	EI. Hf. or Full Qr.	½-1	Tenney	Pool
P. E. 27	Intermediate Swimming	MTWTh	EI. Half Quarter	1	Doubenmier	
<b>4:00-4:50</b>						
P. E. 13	Beginning Tennis	MTTh	EI. Hf. or Full Qr.	½-1	Tenney	GH-107
Mus. 101	Chorus	TTh	Full Quarter	1	Mohr	Con-14

TEXTBOOKS

Art

- 2. The Beginnings of Art in the Public Schools—Mathias.
- 2a. Art in the Elementary School—Mathias.
- 4. Composition—Dow; Design in Theory and Practice—Batchelder.
- 17-117. Writing Illuminating and Lettering—Edward Johnston.
- 100. Organization and Teaching of Art—Winslow.
- 13 and 14. Industrial Arts for Elementary Schools—Bonser and Mossman.

Biology

- 100. Bacteriology—Buchanan; Laboratory Technique for Bacteriology—Levine.
- 101. Genetics—Walter (Revised); Applied Eugenics—Popenoe and Johnson.
- 101-201. New Manual of Rocky Mountain Botany—Coulter and Nelson.
- 3. Western Bird Guide—Reed.
- 107. Applied Entomology—Fernald.
- 108. Vertebrate Embryology—Reese.
  - 1. Our Living World—Downing.
  - 1. Everyday Problems in Science—Pieper and Beauchamp.

Chemistry

- 1, 2, 3. Introductory College Chemistry—Gordon; 7. Qualitative Analysis—W. W. Scott.
- Chemistry 110, 111. Organic Chemistry—Remsen & Orndorff; Laboratory Manual of Organic Chemistry—W. R. Orndorff.
- 112. Household Chemistry—Vulte.
- 114. Quantitative Analysis—Popoff.

Commercial Education

- 1 and 2. Gregg Shorthand Manual (Last Edition).
- 11 and 13. Twentieth Century Typewriting Manual.
- 16. Modern Filing and Yawman and Erbe Equipment.
- 36. Palmer Method Manual; Freeman Correlated Handwriting.
- 37. Smith's Arithmetic of Business.
- 106. Secretarial Science—McNamara.
- 138. Commercial Law—Peters and Pomeroy.
- 140. Investments—Jordan.
- 150 and 151. Introductory Accounting—Powelson.
- 165. Types of Business Enterprise—Cross.
- 224 and 225. Research and thesis.

Education

- 1. Introduction to Education (Revised Edition) — Frasier and Armentrout; Beginning Teaching—Avent.
- 3a. The Primary School—Moore; How to Teach Reading—Pennell & Cusack.

- 3b. Teaching Arithmetic in the Primary Grades—Morton.
- 3c. Spontaneous and Supervised Play—Sies; International Kindergarten Union, Selected List of Poetry and Stories.
- 4a. Reading Objectives—Anderson & Davidson; Fourth Yearbook, Department of Superintendence.
10. Principles of Education—Chapman & Counts; How to Make a Curriculum—Bobbitt.
15. Educational and Vocational Guidance—Proctor.
- 16 and 16a. Symbol Books, Song Books, and Manuals. Camp Fire Girls.
20. Rural Life and Education—Cromwell.
21. Problems of the Rural Teacher—Pittman.
23. Rural School Methods—Ritter & Wilmarth.
24. The Rural Community—MacGarr.
28. School and Home Gardens—Quear.
101. Modern Methods in High School Teaching—Douglass.
107. Twenty-fourth Yearbook, Part I, National Society for the Study of Education; Summary of Investigations Relating to Reading—Gray.
108. Supervision of Instruction—Nutt.
110. Summary of Investigations in Extra-Curriculum Activities—Rugg, Earle.
111. Source Book in the Philosophy of Education—Kilpatrick; Syllabus in the Philosophy of Education—Kilpatrick.
114. Supervision of Instruction—Barr & Burton.
115. The Principal and His School—Cubberley.
116. High School Administration—Cook.
125. Rural Education—Brim.
126. An Experiment with a Project Curriculum—Collings.
134. Public Education in the United States—Cubberley.
142. Public School Administration—Cubberley.
143. An Introduction to Public School Finance—Pittenger; Handbook of Instructions for Recording Disbursements.
150. Foundations of Method—Kilpatrick.
151. Child Guidance—Blanton & Blanton.
192. Conduct of Student Teaching—Armentrout.
210. Twenty-sixth Yearbook, Parts I & II, National Society for the Study of Education.
230. Story of Philosophy—Durant.
215. The Junior High School—Koos.
217. Principles of Secondary Education—Uhl.
240. The Dean of Women—Mathews.
242. Problems of Educational Administration—Strayer & Engelhardt.

**English and Literature**

0. The Little Grammar and the Little Book of English Composition, Cross.
- 1 and 2. Children's Literature—Curry-Clippenger.
4. Woolley's Hand Book, Practice Leaves in English Fundamentals Form C.
9. Heath's Readings in English Literature.
11. Fundamentals in English—Cross.
13. Stories and How to Tell Them—Esenwein and Stockard.
14. A Technique in Dramatic Art—Bosworth.
20. New Hand Book of Composition—Woolley.
31. The Short Story—Cross.
105. Speech Training and Public Speaking for Secondary Schools—Drummond.
106. Bulletin No. 2, 1917, Department of the Interior; Reorganization of English in Secondary Schools.
128. Shakespeare's Complete Works (one volume)—Cambridge Edition.
134. An Outline of Contemporary Drama—Dickinson.
161. Literature of the Old Testament—Bewer.

**Foreign Languages**

- Spanish 1, 2, 3. Hills and Ford, Spanish Grammar for Colleges; Hills and Cano—Cuentos y Leyendas.
- Spanish 5. Seymour and Carnahan, Short Review Grammar; Juan Manuel—El Conde Lucanor.
- Spanish 105. Hartzzenbusch, Los Amantes de Teruel; Echegaray—El Gran Galeoto; Tomayo y Baus—Un Drama Nuevo.
- French 1. Study of grammar pronunciation together with some reading.
- French 5. Carnahan's Short Review Grammar and a Selection of short stories.
- Foreign Language 53 (French). A two-hour course in the elements of French, stressing pronunciation, destined especially for music majors, but open to others.

**History**

1. Foundations of American Nationality—Greene.
5. Political and Social History of Europe, Vol. I—Hayes.
10. American Economic History—Faulkner.
203. The Age of the Reformation—Smith.
216. The Republics of Latin America—James and Martin.

**Political Science**

2. State Government, Second Edition—Dodd.
101. American Foreign Policy—Latané.

**Mathematics**

1. College Algebra—Hart.
2. Trigonometry—Rothrock.
9. Analytic Geometry—Smith & Gale.
- 101, 102—Calculus—Granville.
104. Teaching Arithmetic—Morton.
106. Astronomy—Moulton.
107. Teaching Junior High School Mathematics—Smith & Reeve.
201. Differential Equations—Murray.

**Music**

- 1A to 10—Elementary Teachers Book "Music Hour Series."
- 1A, 10, 11—Course of Study in Music for the Elementary School—Mohr.
- 3 and 4. Beginners Harmony—Orem.
11. Music Appreciation for Every Child—Glenn; DeForest—Loury;
- 18 & 7c—Melodia—Cole—Lewis.
- 20, 21—Essentials in Music History—Tapper—Goetschius.
25. Music and Music-Makers—Morse.
110. Art—Clive Bell.
110. Psychology of Beauty—Puffer.  
(Primary-Intermediate-Junior High Volumes).
103. Counterpoint Simplified—York.
105. Instrumentation—Prout.
107. Lessons in Music Form—Goetschius.
110. Principles of Musical Education—Mursell.
114. Methods in Conducting—Gehrkens.

**Psychology**

- 2a. Psychology for Students of Education—Gates; Educational Psychology—Jordan.
- 2b. Same books as for 2a.
- 100a. Everyday Problems of the Everyday Child—Thom.
- 100b. Personality Problems in School Children—Zachary.
103. Psychology of Adolescence—Brooks.
104. Psychology of Elementary School Subjects—Reed.
105. Psychology of Secondary School Subjects—Judd.
107. Measurements of Intelligence, Terman.
- 108a. Educational Tests and Measurements (Revised)—Monroe, De Voss & Kelly.
- 108b. Measurement in Secondary Education—Symonds.
- 108c. Traditional Examinations and New Type Tests—Odell.
117. Statistics in Psychology and Education—Garrett.
118. Graphic Methods in Education—Williams.
119. The Psychology of Personality—Valentine.
214. Educational Psychology, Vol. II—Thorndike.
216. The Psychology of Individual Differences—Ellis.
222. How to Experiment in Education—McCall,







---

---

# THE CALENDAR

FOR THE

SUMMER QUARTER

1930

---

*June 14—Saturday.....Registration Day for the Summer Quarter*

*June 16—Monday.....Classes begin*

---

*A fee of one dollar is collected for late registration, after Saturday, June 14. Also one dollar is charged for late registration for the second half, July 21.*

*July 19—Saturday.....The first half of the Summer Quarter closes.*

---

*Students, if possible, should enroll June 14 for the full quarter, but they have the privilege of enrolling for either half quarter independent of the other. Many courses run through the first half quarter only. Some run through the second half quarter only. Most of the courses, especially the required courses, must be taken throughout the whole quarter before any credit will be given.*

*July 19—Saturday.....New enrollment for the second half quarter.*

*July 21—Monday.....Classes begin*

*Aug. 23—Saturday.....The Summer Quarter closes. Graduation Day.*

---

---



11 R

# The Official Program of Courses

Summer Quarter 1930

Revised, June 1

Including the Schedule of Lectures,  
Book Reviews, Entertainments, and  
Other Extra-Curricular Activities



Colorado State Teachers College

Greeley

FIRST HALF QUARTER: Saturday, June 14 to Saturday, July 19

SECOND HALF QUARTER: Monday, July 21 to Saturday, August 23



# Lectures, Entertainments and Book Reviews

---

For the Summer Quarter of 1930 the college is providing a series of open lectures, entertainments, plays, and book reviews open to students and the public. All these are given without admission charge except the few entertainments and plays that are brought at a considerable expense and are given as benefits for some college enterprise or organization.

**COLLEGE ASSEMBLIES AND EVENING LECTURES:** There will be an all-college assembly with required attendance and roll call once a week, usually on Monday at 7:00 P. M., in Gunter Hall. Attendance at other evening assemblies and lectures is urged, because they will be well worth while, but attendance is voluntary.

**BOOK REVIEWS:** Book reviews and occasional free open lectures will be held usually four times a week at 4:00 P. M. in the Little Theater. Open to all.

**PLAYS AND ENTERTAINMENTS:** A few plays and entertainments will be given in the Little Theater on certain evenings at 8:15 o'clock when there is no assembly or evening lecture. Small admission fees will be charged.

**COLLEGE DANCES:** Attendance of students at open public dances is not permitted, but each Friday evening from 9:00 to 11:30 there will be a dance in the woman's gymnasium, Gunter Hall. These dances are given under the direction of the college and are properly chaperoned. Attendance is limited to college students, faculty, and guests with tickets issued by the dean of women upon due request of students. Good music. Admission 50c.

**EXCURSIONS, PICNICS, ETC.:** The college is sponsoring a variety of outings during the summer quarter. So far as these were definitely arranged at the time of the printing of this pamphlet, they are announced herein. Others organized later will be advertised at appropriate times. **NOTE:** See the illustrated booklet *Student Outdoor Life* for details of excursions.





## INSTRUCTIONS CONCERNING REGISTRATION

*Note*—Take this copy of the CATALOG with you when you register.

1. **TIME AND PLACE FOR REGISTRATION**—All registration takes place in Gunter Hall from 7:00 to 12:00 and from 1:00 to 4:00, Saturday, June 14.

### 2. ORDER OF REGISTRATION.

(a) Fill out the personal data card with PEN and present it for registration material.

(b) Fill out the temporary enrollment card with PEN and have it signed by your faculty adviser. The latter card will admit you to class until you have registered permanently. It must be signed by each of your teachers before permanent registration.

The temporary card must be exchanged for permanent cards at the registrar's office. This exchange must be completed by 4:30 P. M. of the last day for permanent registration, June 20. Permanent cards, approved by the registrar, and marked "audited" by the treasurer, must be presented to your teachers not later than the date thus arranged. All students who have not complied with the provision on or before this date will be dropped from class. However, **DO NOT ATTEMPT THIS EXCHANGE UNTIL YOU AND YOUR TEACHERS ARE COMPLETELY SATISFIED WITH YOUR SCHEDULE.** Be sure to get a copy of further instructions to be given out on registration day.

3. **STUDENT PROGRAM SIXTEEN OR SEVENTEEN HOURS**—The normal program of a student is sixteen hours. An active physical exercise course giving one hour of credit may be added to any sixteen-hour program for students below the junior year. Students whose outside work takes up a considerable part of their time should enroll for twelve to fifteen hours. Those wishing to take seventeen or eighteen hours regularly, exclusive of the exercise course, must take the classification test, given at 2:00 P. M. on June 16, Little Theater, Administration Building, unless a permit has been previously issued by the registrar. No schedules will be approved for more than eighteen hours under any condition. **THIS TEST, TOGETHER WITH THE ENGLISH AND ACHIEVEMENT TESTS, MUST ALSO BE TAKEN AS A PART OF MATRICULATION.**

4. The CLASSIFICATION, ENGLISH, and ACHIEVEMENT TESTS will be offered on June 16, 17 and 18, respectively, 2 P. M., Little Theater in the Administration Building.

5. LATE REGISTRATION—A fee of \$1.00 is charged for registration after 4:00 P. M. the regular day, June 14. This fee is also exacted of students who register after the final date for permanent registration. Students more than two days late will have their programs cut in proportion to the time they miss from recitations.

6. HEALTH EXAMINATION—A health examination is required of each student who is a candidate for graduation in the summer quarter.

7. ENGLISH 0 and 4 are required of all candidates for graduation, no matter what English courses they may have had elsewhere in high school or college, unless they are excused from taking English 0 or both after passing the English Exemption Test. This test is given at the opening of each quarter, time and place to be announced. Students who have been formally graduated from any accredited normal school or teachers college are exempt from all junior college core subjects, including English 0 and 4.

8. Students who may have been admitted formerly on a basis other than satisfactory scores in matriculation tests or graduation from an accredited high school should determine their status at the present time. Likewise, all college credits must conform to standards effective September 1, 1924, as announced in recent year books.

9. HALF QUARTER COURSES—Credit is not given for a full quarter course carried for only a half quarter.

10. Candidates for graduation should NOT take a required course for half credit.

11. GRADUATE STUDENTS—The theses courses are numbered 224 and 225 in each department. These courses do not appear in the time schedule. Students must arrange with the head of the department for convenient hours for conferences.

12. All students matriculating must have photograph made for the records. This will be taken in Room L12, and must be attended to during the first week.

## SCHEDULE OF CLASSES

KEY to room abbreviations: Ad—Administration Building; Con—Conservatory of Music; G—Guggenheim Hall; GH—Gunter Hall; HE—Home Economics; L—Library; T—Training School; LTH—Little Theatre.

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Qr. Hrs.	Teacher	Suggested Room
7:00—7:50						
Art 13	Industrial Art Methods for Primary Grades	MTThF	1st Hf. or Full Qr.	2-4	Moore	G-204
Art 16	Freehand Drawing II	MTThF	1st Hf. or Full Qr.	2-4	Baker	G-200
Art 116	Advanced Freehand Drawing	MTThF	1st Hf. or Full Qr.	2-4	Baker	G-200
Bot. 101	Systematic Botany (Field trips arranged)	MTWTh	Full Quarter	4	Arvidson	Ad-302
Bot. 201	Taxonomy (Field trips arranged)	MTWTh	Full Quarter	4	Arvidson	Ad-302
Chem. 110	Organic Chemistry (Lab. by appt.)	MW	Full Quarter	2-4	Bowers	Ad-1
Com. Ed. 4	Methods of Teaching Shorthand	MTThF	1st Half Quarter	2	Bedinger	Ad-212
Com. Ed. 36	Handwriting Methods (Freeman correlated)	MTWTh	1st Half Quarter	1	Hinds	Ad-214
Com. Ed. 36	Handwriting Methods (Palmer)	MTWTh	2nd Half Quarter	1	Judy	Ad-214
Com. Ed. 138	Commercial Law I	MTThF	1st Half Quarter	2	Bedinger	Ad-211
Ed. 1	Introduction to Education	TWThF	Full Quarter	4	McCauley	Ad-205
Ed. 3b	Social Arts—Primary Grades	TWThF	Full Quarter	4	Rosenquist	T-210
Ed. 4a	Language Arts—Intermediate Grades	TWThF	Full Quarter	4	McCowen	T-218
Ed. 24	The Rural Community	TWThF	Ei. Hf. or Full Qr.	2-4	Ogle	GH-201
Ed. 110b	Citizenship Education—Intermediate Grades	MTWTh	Second Half	2	Ogle	GH-201
Ed. 114	Primary Supervision	MTThF	1st Half Quarter	2	Lehr	T-215
Ed. 127	Special Rural School Methods	MTWTh	Ei. Hf. or Full Qr.	2-4	Turner	T-209
Ed. 130	Visual Education	MTWTh	First Half	2	Hargrove	GH-205
Ed. 142	School Administration. First Course	MTWTh	1st Half Quarter	2	Valentine	HE-106
Ed. 144	School Publicity	MTWTh	Ei. Hf. or Full Qr.	2-4	Stutsman-Hunt	T-219
*Ed. 209	Advanced Problems of Curriculum Making	MTWTh	First Half	2	Shaw-Risley	T-208
El. Sci. 1	Elementary Science (Field trips arranged)	TWThF	Ei. Hf. or Full Qr.	2-4	Rugg	Ad-203
Eng. 16	Contemporary Literature	MTThF	Full Quarter	4	Selberg	Ad-303
Eng. 31	The Short Story	TWThF	Full Quarter	4	Newman	Ad-207
Eng. 60	New Testament Literature	MTThF	Full Quarter	4	Hawes	Ad-202
			1st Hf. or Full Qr.	2-4	Wilson	T-206

\*Do not take Ed. 100g (units 1-4) with Ed. 209

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Qr. Hrs.	Teacher	Suggested Room
Eng. 112	Children's Theater	MTThF	1st Hf. or Full Qr.	2-4	Blackburn	LTh
Eng. 132	Development of the Novel	TWThF	Full Quarter	4	Pooley	T-207
Eng. 154	Political Geography	MTThF	Ei. Hf. or Full Qr.	2-4	West	GH-203
Hist. 203	The Reformation	TWThF	Ei. Hf. or Full Qr.	2-4	Zimmerman	L-1
H. E. 7a	Household Management (Theory)	MTWTh	Ei. Half Quarter	2	Newburn	HE-305
H. E. 7b	Household Management (Practical)	Daily	Full Quarter	2	Newburn	Cottage
H. E. 100	Millinery (Double period)	TWThF	1st Hf. or Full Qr.	2-4	Roudebush	HE-301
H. E. 124	Dietetics (Double period)	MTThF	Full Quarter	4	Pickett	HE-202
Ind. Ed. 1	Constructive Woodworking I (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Fouk	G-1
Ind. Ed. 8a	Art Metal (Lab. by appt.)	MWThF	Ei. Hf. or Full Qr.	2-4	Hadden	G-101
Ind. Ed. 31	Elements of Printing I (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Bishop	HE-102
Ind. Ed. 34	Intermediate Printing I (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Bishop	HE-102
Ind. Ed. 41a	Elementary Bookbinding and Leathercraft (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Schaefer	G-100
Ind. Ed. 42c	History of Bookbinding	MTWTh	Ei. Hf. or Full Qr.	2-4	Schaefer	G-100
Ind. Ed. 109b	Art Metal and Jewelry II (Lab. by appt.)	TWThF	Ei. Hf. or Full Qr.	2-4	Hadden	G-101
Ind. Ed. 125	Class Management in Woodworking	MTWTh	Ei. Hf. or Full Qr.	2-4	Fouk	G-1
Ind. Ed. 143c	Advanced Bookbinding (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Schaefer	G-100
Math. 9	Analytic Geometry	MTWTh	Ei. Hf. or Full Qr.	2-4	Mallory	T-205
Math. 106	Descriptive Astronomy	MTWTh	Ei. Hf. or Full Qr.	2-4	Finley	Ad-210
Mus. 110	Principles of Music Education	MTWTh	Full Quarter	4	Mohr	T-2
Mus. 114	Methods in Conducting	MTWTh	1st Half Quarter	2	Cline	Con. 14
P. E. 26	Swimming (Beginning)	TWThF	Ei. Half Quarter	1	Cave	Pool
P. E. 13	Tennis (Beginning)	TThF	Ei. Hf. or Full Qr.	½-1	Tenney	GH-107
Phys. 118	Photography (Listed as Physics 5 in 1929-30 Year Book)	MTWTh	2nd Half Quarter	2	Valentine	HE-106
Pol. Sci. 2	State Government	MTWTh	Full Quarter	4	Dickerson	Ad-104
Psych. 2a	Educational Psychology	TWThF	Full Quarter	4	Wait	T-13
Psych. 117	Elementary Statistical Methods	MTWTh	Full Quarter	4	Heilman	T-12
Science 1	Outlines of Science	MTWTh	Full Quarter	4	Herman	Ad-300
Zool. 3	Bird Study (Field trips arranged)	MTThF	Full Quarter	4	Harrah	Ad-304

Time and  
Catalogue No.

8:00—8:50

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Qr. Hrs.	Teacher	Suggested Room
Art 2a	Fine Arts Methods for Intermediate and Junior High School	MTWThF	1st Hf. or Full Qr.	2-4	Ogle	G-204
Art 3	Freehand Drawing I	MTWTh	1st Half Quarter	2	Reitzel	G-203
Art 5	Water Color Painting	TWThF	Ei. Hf. or Full Qr.	2-4	M. Thomas-Reitzel	G-105
Art 100	Supervision of Fine Arts Education	MTThF	1st Hf. or Full Qr.	2-4	Naber	G-202
Art 105	Water Color Painting	TWThF	Ei. Hf. or Full Qr.	2-4	M. Thomas-Reitzel	G-105
Art 108	Pottery	MTThF	1st Hf. or Full Qr.	2-4	Moore	G-
Ath. 36	Recreational Tennis	MTW	Ei. Hf. or Full Qr.	1½-1	Cooper	Courts
Ath. 169	Baseball Coaching	MTThF	1st Half Quarter	2	Brown	Field
Chem. 112	Food Chemistry (Lab. by appt.)	MW	Full Quarter	2-4	Bowers	Ad-1
Com. Ed. 13	Typewriting III	TWThF	1st Half Quarter	2	Knies	Ad-213
Com. Ed. 36	Handwriting Methods (Freeman Correlated)	MTWTh	1st Half Quarter	1	Hinds	Ad-214
Com. Ed. 36	Handwriting Methods (Palmer)	MTWTh	2nd Half Quarter	1	Judy	Ad-214
Com. Ed. 41	Materials and Methods for Junior Business Training	TWThF	2nd Half Quarter	2	Knies	Ad-213
Com. Ed. 140	Investments	MTWTh	1st Half Quarter	2	Colvin	Ad-212
Com. Ed. 165	Business Administration	MTWTh	2nd Half Quarter	2	Colvin	Ad-212
Ed. 10	Problems of Education	TWThF	Full Quarter	4	McCowen	T-215
Ed. 21	Rural School Problems	MTWTh	Ei. Hf. or Full Qr.	2-4	Ogle	Ad-300
Ed. 110	Extra-Curricular Activities	MTWTh	Ei. Hf. or Full Qr.	2-4	Schorling, Hamilton, Prunty	Ad-203
Ed. 111	Philosophy of Education	TWThF	Full Quarter	4	Mahan	Ad-103
Ed. 125	Rural Education	MTWTh	Ei. Hf. or Full Qr.	2-4	Hargrove	Ad-207
Ed. 244	Problems of Educational Administration (Third advanced course)	MTWTh	Ei. Hf. or Full Qr.	2-4	Troxel	Ad-205
El. Sci. 1	Elementary Science (Field trips arranged)	MTWTh	Full Quarter	4	Arvidson	Ad-301
Eng. 4	Speaking and Writing	TWThF	Full Quarter	4	Hawes	Ad-202
Eng. 12	Oral Expression	MTThF	2nd Half Quarter	2	Blackburn	LTh
Eng. 105	Oral English in the High School	MTThF	1st Half Quarter	2	Blackburn	LTh
Eng. 120	Lyric Poetry	MTThF	Ei. Hf. or Full Qr.	2-4	Tobey	T-211
Eng. 129	Shakespeare's Tragedies	TWThF	Ei. Hf. or Full Qr.	2-4	Lindou	HE-306
Eng. 161	Old Testament Literature	MTThF	Ei. Hf. or Full Qr.	2-4	Wilson	HE-207

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Qr. Hrs.	Teacher	Suggested Room
For. Lang. 53	Foreign Language (French)	TTh	Full Quarter	2	Muironey	L-6
Gen. Sci. 1	General Science (2 hrs. lab. 2 to 4 Wed.)	TWThF	Full Quarter	4	Selberg	Ad-303
Geog. 10	Methods and Materials in Geography for Intermediate Grades	MTThF	Full Quarter	4	West	GH-203
Geog. 152	Problems of South American Geography	MTThF	Ei. Hf. or Full Qr.	2-4	Barker	GH-103
Hist. 10	Social and Economic History of the U. S.	MTWTh	Full Quarter	4	Peake	Ad-104
Hist. 208	American Revolution	MTWTh	Ei. Hf. or Full Qr.	2-4	Dickerson	L-1
H. E. 107	Home Decoration	MTThF	Full Quarter	4	Wiebking	HE-301
Hyg. 1	Hygiene for Men	MTWTh	Full Quarter	4	Von den Steinen	GH-201
Ind. Ed. 33	Principles of Printing Design (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Bishop	HE-102
Ind. Ed. 100	Woodshop Problems (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Foulk	G-1
Ind. Ed. 132	Advanced Printing I (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Bishop	HE-102
Math. 1	College Algebra	MTWTh	Ei. Hf. or Full Qr.	2-4	Tobey	T-204
Math. 104	The Teaching of Arithmetic	MTWTh	Ei. Hf. or Full Qr.	2-4	Finley	Ad-210
Math. 107	Teaching Junior High Mathematics	MTWTh	Ei. Hf. or Full Qr.	2-4	Mallory	T-205
Mus. 25	Outline of Music	MTWTh	Full Quarter	2	Mohr	T-2
Mus. 45	Orchestral Instruments	MTWTh	Full Quarter	2	Thomas	Con-14
Mus. 105	Beginning Orchestration	MTWTh	1st Half Quarter	2	Cline	Con-6
Mus. 106	Advanced Orchestration	MTWTh	2nd Half Quarter	2	Cline	Con-6
P. E. 13	Tennis (Intermediate)	TThF	Ei. Hf. or Full Qr.	½-1	Tenney	GH-107
P. E. 122	Physiology	TWThF	Full Quarter	4	Cave	GH-205
Phys. 1	Elementary College Physics (Lab. Wed. or Fri. 8-10)	MTTh	Full Quarter	4	Valentine	HE-106
Psych. 100a	Unit Course—Mental Hygiene, July 21. to July 31, inclusive	Daily	2nd Half Quarter	1	Ebaugh	T-11
Psych. 104	Psychology Elementary School Subjects	MTWTh	Ei. Hf. or Full Qr.	2-4	Heilman	T-13
Psych. 115	Abnormal Psychology and Mental Hygiene	TWThF	Full Quarter	4	Wait	HE-304
Psych. 214	Advanced Educational Psychology	MTWTh	Full Quarter	4	Hertzberg	T-12
Soc. 105	Introduction to Science of Sociology	TWThF	Full Quarter	4	Binnewies	T-9
Soc. 150	Social Theory of Education	MTWTh	Ei. Hf. or Full Qr.	2-4	Howerth	Ad-208
Span. 1, 2, 3	Elementary Spanish (double period—Second recitation at 11 o'clock compulsory)	MTWThF	Full Quarter	12	Davis	T-216
Span. 150	Spanish Poetry	MW	Full Quarter	2	Muironey	L-6
Zool. 108	Embryology (Four hours lab. arranged)	MTThF	Full Quarter	4	Harrah	Ad-304

Time and Catalogue No.      Descriptive Title of Course      Days      May Be Taken for Credit      Qr. Hrs.      Teacher      Suggested Room

9:00—9:50

Art 1	Art Appreciation	MTThF	Full Quarter	2	Baker	G-200
Art 4	Design	MTThF	1st. Hf. or Full	2-4	Naber	G-204
Art 103	Art Structure III	TWTThF	1st Half Quarter	2	Thomas	G-105
Ath. 3	First Aid	MTWTh	2nd Hf. Quarter	2	Von den Steinen	Office
Ath. 40	Elementary Swimming	Daily	Ei. Hf. Quarter	1	Brown-Cooper	Pool
Ath. 165	Football Coaching	MTWTh	1st Hf. Quarter	2	Cooper	Gym
Ath. 166	Basketball Coaching	MTWTh	1st Half Quarter	2	Saunders	GH-103
Ath. 180	Athletic Training	MTWTh	1st Hf. Quarter	2	Von den Steinen	Office
Biol. 101	Genetics and Eugenics	MTWTh	Full Quarter	4	Jean	Ad-301
Chem. 7	Qualitative Analysis (Lab. by appt.)	MTWTh	Ei. Hf. or Full	2-4	Bowers	Ad-6
Chem. 7b	Qualitative Analysis (Lab. by appt.)	Arrange	Ei. Hf. or Full	2-4	Bowers	Ad-6
Chem. 114b	Quantitative Analysis (Lab. by appt.)	MTWTh	Ei. Hf. or Full	2-4	Bowers	Ad-6
Com. Ed. 11	Typewriting I	TWTThF	1st Hf. or Full	2-4	Knies	Ad-213
Com. Ed. 106	Secretarial Science	MTThF	1st Hf. or Full	2-4	Bedinger	Ad-212
Com. Ed. 151	Accounting II	MTWTh	Full Quarter	4	Colvin	Ad-214
Ed. 2a	Pre-Teaching Observation in the Elementary School	TWTThF	Full Quarter	2	Davis and Training Teachers	T-216
Ed. 28	School and Home Gardens	MTWTh	2nd Half Quarter	2	Hargrove	Ad-210
Ed. 100k	Unit Course in Guidance Problems in the Junior High School (August 4-14)	Daily	2nd Half Quarter	1	Hamilton	Ad-203
Ed. 100m	Unit Course in Citizenship Education, Junior High School (June 30-July 10)	Daily	1st Half Quarter	1	Hamilton	Ad-203
Ed. 116	Organization and Administration of the Senior High School	MTWTh	Full Quarter	4	Schloring, McClintock, Prunty	Ad-103
Ed. 134	History of Education in the United States	TWTThF	Full Quarter	4	Mahan	Ad-207
Ed. 145	Platoon School	MTWTh	1st Half Quarter	2	Risley	T-205
Ed. 192	Training School Problems	MTWTh	2nd Half Quarter	2	Armentrout	T-205
Ed. 213	Problems of the Junior High School (First advanced course)	MTWTh	Ei. Hf. or Full	2-4	Troxel	L-1
Ed. 259	Problems of Elementary Education (Soc. Sci., Problem Meth. Soc. Recit.)	MTWTh	Ei. Hf. or Full	2-4	McKee	T-215
Eng. 11	The English Language	TWTThF	Ei. Hf. or Full	2-4	Pooley	HE-306

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Gr. Hrs.	Teacher	Suggested Room
Eng. 100	Journalism	MTWTh	Full Quarter	4	Shaw	T-211
Eng. 108	Comparative Literature, Italian, Spanish and French	MTThF	Full Quarter	4	Tobey	Ad-202
Eng. 131	The International Note in Literature	MTThF	El. Hf. or Full Qr.	2-4	Newman	Ad-205
French 1	Elementary French	MTWTh	Full Quarter	4	Davis	T-202
Geog. 199	Conservation of National Resources	MTThF	El. Hf. or Full Qr.	2-4	Barker	GH-203
Hist. 216	Latin American History	TWThF	Full Quarter	4	Zimmerman	Ad-104
H. E. 1	Pattern Designing	MWThF	1st Hf. or Full Qr.	2-4	Roudebush	HE-301
H. E. 3	Garment Making (double pd.)	MWThF	Full Quarter	4	Roudebush	HE-301
H. E. 4	Elementary Dressmaking (double pd.)	MTThF	Full Quarter	4	Roudebush	HE-301
H. E. 24	Elementary Nutrition	MTWTh	Full Quarter	4	Newburn	HE-305
H. E. 125	Child Care and Child Welfare	MTThF	Full Quarter	4	Pickett	HE-207
Hyg. 1a	Personal Hygiene (for women)	MTWTh	Full Quarter	4	Bryson	GH-201
Ind. Ed. 2	Constructive Woodworking II (Lab. by appt.)	MTWTh	El. Hf. or Full Qr.	2-4	Fouk	G-1
Ind. Ed. 11	Projection, Shade and Shadow (Lab. by appt.)	TWThF	El. Hf. or Full Qr.	2-4	Hadden	G-104
Ind. Ed. 12	Principles of Architectural Drawing I (Lab. by appt.)	TWThF	El. Hf. or Full Qr.	2-4	Hadden	G-104
Ind. Ed. 33	Principles of Printing Design (Lab. by appt.)	MTWTh	El. Hf. or Full Qr.	2-4	Bishop	HE-102
Ind. Ed. 34	Intermediate Printing I (Lab. by appt.)	MTWTh	El. Hf. or Full Qr.	2-4	Bishop	HE-102
Ind. Ed. 41b	Elementary Bookbinding and Leathercraft (Lab. by appt.)	MTWTh	El. Hf. or Full Qr.	2-4	Schaefer	G-100
Ind. Ed. 125	Class Management in Woodworking	MTWTh	El. Hf. or Full Qr.	2-4	Fouk	G-1
Ind. Ed. 144b	Advanced Bookbinding	MTWTh	El. Hf. or Full Qr.	2-4	Schaefer	G-100
Lib. Sci. 106	Children's Literature and Juvenile Library Service	MTThF	Full Quarter	4	Schilpp	L-3
Math. 2	Plane Trigonometry	MTWTh	El. Hf. or Full Qr.	2-4	Tobey	T-204
Mus. 1a	Rudiments and Methods	MTWTh	Full Quarter	4	Mohr	T-2
Mus. 1b	Sight-singing	MTWTh	Full Quarter	4	Opp	Con-14
Mus. 103	Beginning Counterpoint	MTWTh	1st Half Quarter	2	Thomas	Con-6
Mus. 104	Advanced Counterpoint	MTWTh	2nd Half Quarter	2	Thomas	Con-6
P. E. 2	Natural Dancing (Beginning)	MTTh	1st Hf. or Full Qr.	1/2-1	Springer	GH-202
P. E. 120	Anatomy	TWThF	Full Quarter	4	Cave	GH-205



Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Gr. Hrs.	Teacher	Suggested Room
Phys. 103	Principles of Radio Reception	MTWTh	1st Half Quarter	2	Valentine	HE-106
Phys. 104	Principles of Radio Transmission	MTWTh	2nd Half Quarter	2	Valentine	HE-106
Psych. 2b	Educational Psychology	MTWTh	Full Quarter	4	Hertzberg	T-13
Psych. 100b	Unit Course-Personality Problems in School Children, July 21 to 31 inclusive	Daily	2nd Half Quarter	1	Ebaugh	T-11
Psych. 103	Psychology of Adolescence	MTWTh	1st Half Quarter	2	Merriman	T-11
Psych. 108a	Educational Measurements in Elementary Grades and Junior High School	TWThF	EI. Half or Full Quarter	2-4	Poole	T-12
Psych. 203	Conference Seminar and Lab. Course	Arrange	Full Quarter	4	Heilman	T-12
Psych. 222	Experimental Technic and Its Application	Arrange	Full Quarter	4	Whitney	Ad-102
Sci. 2	Outlines of Science	MTThF	Full Quarter	4	Harrah	Ad-300
Soc. 105	Introduction to Science of Sociology	MTWTh	Full Quarter	4	Howerth	Ad-208
Soc. 122	Comparative Religions	MTThF	1st Half or Full Quarter	2-4	Wilson	Ad-304
Span. 5	Intermediate Spanish	MTWTh	Full Quarter	4	Mulroney	L-6
<b>10:00-10:50</b>						
Art 14	Industrial Art Methods for Intermediate and Junior High	MTThF	1st Hf. or Full Qr.	2-4	Moore	G-204
Art 101	Drawing from the Figure	MTWTh	1st Hf. or Full Qr.	2-4	Reitzel	G-105
Art 106	Teaching of Art Appreciation	MTThF	EI. Half Quarter	2	Baker	G-200
Ath. 52	Mat Work and Tumbling	MTWTh	EI. Hf. or Full Qr.	½-1	Von den Steinen	GH-104
Ath. 60	Plays and Games	Daily	2nd Half Quarter	1	Cooper	GH-103
Ath. 170	Organization and Administration	MTWTh	1st Half Quarter	2	Cooper	GH-103
Chem. 1	General Chemistry (Lab. by appt.)	MW	Full Quarter	2-4	Bowers	Ad-1
Com. Ed. 1	Shorthand I	MTThF	1st Hf. or Full Qr.	2-4	Bedinger	Ad-214
Com. Ed. 138	Commercial Law I	MTWTh	1st Half Quarter	2	Hinds	Ad-211
Com. Ed. 212	Pre-Teaching Observation in the Secondary School (academic subjects)	MTWTh	Full Quarter	4	Colvin	Ad-212
Ed. 2c		MTWTh	Full Quarter	2	Wrinkle and Training Teachers	T-209
Ed. 3c	Kindergarten Primary Materials	MTWTh	1st Half Quarter	2	Lyford	T-216
Ed. 4a	Language Arts in Intermediate Grades	TWThF	EI. Hf. or Full Qr.	2-4	McCowen	T-9
Ed. 15	Educational Guidance	MTWTh	1st Half Quarter	2	Essert	T-11

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Qr. Hrs.	Teacher	Suggested Room
Ed. 20	Agricultural Education	MTWTh	Ei. Hf. or Full Qr.	2-4	Hargrove	Ad-205
Ed. 101	Methods of Teaching in the High School	MTWTh	1st Half Quarter	2	Stutsman	Ad-207
Ed. 113	Organization and Administration of the Junior High School	MTWTh	Full Quarter	4	Schorling, Hamilton, Prunty	Ad-203
Ed. 218	Problems of Secondary Education (Third advanced course)	MTWTh	Ei. Hf. or Full Qr.	2-4	Troxel	Ad-301
Ed. 260	Problems of Elementary Education (Handwriting, Composition, Arithmetic)	MTWTh	Ei. Hf. or Full Qr.	2-4	McKee	T-215
Eng. 0	Fundamentals in English	TWThF	Full Quarter	0	Lindou	T-204
Eng. 10	English Literature, 1798-1900	TWThF	Full Quarter	4	Hawes	Ad-202
Eng. 14	Dramatic Art	MTThF	Full Quarter	4	Blackburn	LTh
Eng. 21	An Outline of Literature to 1800	MTThF	Full Quarter	4	Newman	Ad-103
Eng. 210	Old English	TWThF	Full Quarter	4	Pooley	T-2
Geog. 7	Business Geography	MTThF	Ei. Hf. or Full Qr.	2-4	West	GH-205
Geog. 124	Zoogeography	MTThF	Ei. Hf. or Full Qr.	2-4	Barker	GH-203
Hist. 5	Early Modern Europe	MTWTh	Full Quarter	4	Peake	Ad-104
H. E. 25	Cookery and Table Service for Home-makers (double period)	MTWTh	1st Hf. or Full Qr.	2-4	Pickett	HE-204
Hyg. 1a	Personal Hygiene (for women)	MTWTh	Full Quarter	4	Bryson	GH-201
Ind. Ed. 104	Vocational Education (Lab. by appt.)	TWThF	Ei. Half or Full	2-4	Hadden	G-101
Ind. Ed. 132	Advanced Printing I (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Bishop	HE-102
Math. 104	The Teaching of Arithmetic	MTWTh	Ei. Hf. or Full Qr.	2-4	Finley	Ad-210
Math. 110	Geometry for Teachers	MTWTh	Ei. Hf. or Full Qr.	2-4	Mallory	HE-306
Mus. 2	Tone Thinking and Melody Writing	MTThF	2nd Half Quarter	2	Opp	Con-6
Mus. 22	Appreciation of Music	MTWTh	1st Half Quarter	2	Opp	Con-14
P. E. 1	Clog and Athletic Dancing	MTWTh	Ei. Hf. or Full Qr.	1/2-1	Cave	GH-107
P. E. 27	Intermediate Swimming	MTWTh	Ei. Half Quarter	1	Doubenmier	Pool
P. E. 103	Natural Dancing for Majors	MTWTh	1st Half Quarter	1	Springer	GH-202
P. E. 104	Natural Dancing for Majors	MTWTh	2nd Half Quarter	1	Springer	GH-202
Pol. Sci. 101	History of the Foreign Policy of the United States	MTWTh	Full Quarter	4	Dickerson	L-1
Psych. 3	Child Development	TWThF	Full Quarter	4	Wait	T-211
Psych. 107	Mental Tests and Measurements	MTWTh	Full Quarter	4	Hertzberg	T-13

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Qr. Hrs.	Teacher	Suggested Room
Science 100	Unit Courses Unit 1—The Teaching of Science, June 18-July 2 Unit 2—Evolution, July 7-18 Unit 3—The Marvels of Modern Physics, July 21-August 1 Unit 4—The Service of Science in Promoting Human Life, August 4-15	MTWThF MTWThF MTWThF	1st Half Quarter 1st Half Quarter 2nd Half Quarter	1 1 1	Powers Jean Valentine	Ad-300
Psych. 108c	Classroom Tests	MTWThF	2nd Half Quarter	1	Fitzpatrick	T-12
Soc. 5	The Family	MTWTh	Full Quarter	4	Heilman	L-3
Soc. 130	Sociological Aspects of Patriotism	TWThF	Ei. Hf. or Full Qr.	2-4	Binnewies	Ad-208
Span. 105	Advanced Spanish	MTWTh	Ei. Hf. or Full Qr.	2-4	Howorth	L-6
		MTThF	Full Quarter	4	Mulroney	
<b>11:00—11:50</b>						
Art 2	Fine Art Methods for Primary Grades	MTThF	1st Hf. or Full Qr.	2-4	Naber	G-200
Art 17	Lettering and Poster Composition	MTThF	Ei. Half Quarter	2	Moore	G-203
Art 117	Lettering and Design	MTThF	Ei. Half Quarter	2	Moore	G-203
Art 120	Oil Painting (Double period. Lab. by appt.)	MTWTh	1st Hf. or Full Qr.	2-4	Reitzel	G-105
Ath. 172	Officiating and Management	MTWTh	1st Half Quarter	2	Cooper	GH-103
Bact. 100	General Bacteriology (Three hrs. Lab. 2-5 Tuesday)	MTWTh	Full Quarter	4	Selberg	Ad-303
Chem. 2	General Chemistry (Lab. by appt.)	TWThF	Full Quarter	2-4	Bowers	Ad-1
Chem. 114	Quantitative Analysis (Lab. by appt.)	MW	Ei. Hf. or Full Qr.	2-4	Bowers	Ad-6
Chem. 117	Teaching of Chemistry	Arrange	Full Quarter	4	Bowers	Ad-1
Com. Ed. 2	Shorthand II	MTThF	Full Quarter	4	Bedinger	Ad-212
Com. Ed. 37	Business Mathematics	MTWTh	1st Half Quarter	2	Hinds	Ad-211
Com. Ed. 150	Accounting I	MTWTh	1st Hf. or Full Qr.	2-4	Colvin	Ad-214
Ed. 2c	Pre-Teaching Observation in the Secondary School (Special subjects)	MTWTh	Full Quarter	2	Wrinkle and Training Teachers	T-210
Ed. 3a	Language Arts—Primary	MTWTh	Full Qr. or 2nd Hf.	2-4	Dulin	T-9
Ed. 3b	Social Arts—Primary	TWThF	First Half	2	Rosenquist	T-6
Ed. 3c	Kindergarten-Primary Materials	MTWTh	Full Qr. or 2nd Hf.	2-4	Lyford	

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Qr. Hrs.	Teacher	Suggested Room
Ed. 23	Rural School Management	MTWTh	Ei. Hf. or Full Qr.	2-4	Hargrove	T-11
Ed. 107	Methods of Improving Reading	TWThF	Ei. Hf. or Full Qr.	2-4	Davis	T-217
Ed. 108	Educational Supervision	TWThF	Ei. Hf. or Full Qr.	2-4	McCowan	T-218
Ed. 111	Philosophy of Education	TWThF	Full Quarter	4	Mahan	Ad-103
Ed. 115	Organization and Administration of the Elementary School	MTWTh	Ei. Hf. or Full Qr.	2-4	Risley, McIntock	LTh
Ed. 118	Character Education	MTWTh	2nd Half Quarter	2	Rugg	Ad-205
Ed. 129	Current Educational Thought	MTWTh	Ei. Hf. or Full Qr.	2-4	Visiting Instructors	Ad-203
Ed. 143	School Administration—Second Course (School Bldgs., Educ. Finance)	MTWTh	Ei. Hf. or Full Qr.	2-4	Stutsman, Hunt	Ad-207
Ed. 152	The Child and the School	MTWTh	1st Half Quarter	2	Rugg	Ad-205
Ed. 230	History of Philosophy	MTWTh	Ei. Hf. or Full Qr.	2-4	Armentrout	T-219
Ed. 258	Problems of Elementary Education (Spelling, Reading, Literature)	MTWTh	Ei. Hf. or Full Qr.	2-4	McKee	T-215
El. Sci. 1	Elementary Science (Field trips arranged)	MTWTh	Full Quarter	4	Arvidson	Ad-301
Eng. 2	Literature for the Junior High School	MTWThF	Full Quarter	4	Tobey	Ad-202
Eng. 20	Advanced Composition	TWThF	Full Quarter	4	Lindou	T-204
Eng. 22	An Outline of Literature (19th Century)	MTThF	Full Quarter	4	Newman	Ad-300
Eng. 106	English in the High School	MTThF	Full Quarter	4	Carney	T-211
Eng. 130	Elizabethan Drama	TWThF	Full Quarter	4	Hawes	T-204
French 5	Intermediate French	MTWTh	Full Quarter	4	Mulroney	L-6
Geog. 15	Methods and Materials for Teaching Junior High School Geography	MTWTh	Ei. Hf. or Full Qr.	2-4	Hackman	GH-203
Geog. 103	Climatology	MTThF	Ei. Hf. or Full Qr.	2-4	West	Ad-304
Hist. 117	Teaching of History in Junior and Senior High Schools	MTWTh	Full Quarter	4	Dickerson	Ad-104
Hist. 221	History of the Far East	MTWTh	Ei. Hf. or Full Qr.	2-4	Peake	L-1
Hyg. 2	Materials and Methods for Teaching Health	MTWTh	1st Half Quarter	2	Bryson	GH-201
Ind. Ed. 19	Woodturning (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Fouk	G-1
Ind. Ed. 31	Elements of Printing I (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Bishop	HE-102
Ind. Ed. 36	Intermediate Printing III (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Bishop	HE-102
Ind. Ed. 42a	Intermediate Bookbinding and Leathercraft (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Schaefer	G-100
Ind. Ed. 117	Machine Drawing I (Lab. by appt.)	TWThF	Ei. Hf. or Full Qr.	2-4	Hadden	G-104.
Ind. Ed. 120	Advanced Woodturning (Lab. by appt.)	MTWTh	Ei. Hf. or Full Qr.	2-4	Fouk	G-1

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Gr. Hrs.	Teacher	Suggested Room
Ind. Ed. 143a	Advanced Bookbinding (Lab. by appt.)	MTWTh	Ei. Hf. or Full	Qr. 2-4	Schaefer	G-100
Ind. Ed. 144c	Advanced Bookbinding (Lab. by appt.)	MTWTh	Ei. Hf. or Full	Qr. 2-4	Schaefer	G-100
Math. 101	Differential Calculus	MTWTh	Ei. Hf. or Full	Qr. 2-4	Mallory	HE-207
Math. 102	Integral Calculus	MTWTh	Ei. Hf. or Full	Qr. 2-4	Mallory	HE-207
Math. 201	Differential Equations	MTWTh	Ei. Hf. or Full	Qr. 2-4	Finley	Ad-210
Mus. 3	Beginning Harmony	MTWTh	Full Quarter	4	Thomas	Con-14
Mus. 107	Form Analysis	MTWTh	1st Half Quarter	2	Opp	Con-6
Mus. 108	Form Analysis	MTWTh	2nd Half Quarter	2	Opp	Con-6
Nurs. Ed. 101	Methods of Supervision Applied in Nursing Education	Daily	1st Half Quarter	2	Kandel	GH-205
P. E. 11	Plays and Games	TThF	Ei. Hf. or Full	Qr. ½-1	Cave	GH-107
P. E. 26	Swimming (Beginning)	MTWTh	Ei. Half Quarter	1	Springer	Pool
Phys. 108	Methods of Teaching High School	MTWTh	1st Half Quarter	2	Valentine	HE-106
Psych. 2a	Educational Psychology	TWThF	Full Quarter	4	Poole	T-13
Psych. 105	Psychology Senior High School Subjects	TWThF	Ei. Hf. or Full	Qr. 2-4	Wait	HE-306
Psych. 119	Psychology and Measurements of Personality Traits	MTWTh	1st Half Quarter	2	Merriman	T-12
Soc. 110	Principles of Economics	TWThF	Full Quarter	4	Binnewies	L-3
Soc. 135	Races and Race Problems	MTWTh	Ei. Hf. or Full	Qr. 2-4	Howerth	Ad-208
Span. 1, 2, 3	Elementary Spanish (double period. First recitation at 8 o'clock compulsory)	MTWThF	Full Quarter	12	Davis	T-216
<b>12:00-12:50</b>						
Art 2	Fine Arts Methods for Primary Grades	MTThF	1st Hf. or Full	Qr. 2-4	Naber	G-200
Art 12	Color Theory and Composition	MTWTh	1st Hf. or Full	Qr. 2-4	Reitzel	G-105
Art 107	Constructive Design	MTWTh	1st Hf. or Full	Qr. 2-4	Ogle	G-204
Ath. 168	Track Coaching	MTWTh	1st Half Quarter	2	Saunders	GH-103
Com. Ed. 16	Methods of Teaching Filing	TWThF	1st Half Quarter	2	Knies	Ad-214
Com. Ed. 157	Methods of Teaching Bookkeeping	TWThF	2nd Half Quarter	2	Knies	Ad-214
Ed. 1	Introduction to Education	TWThF	Full Quarter	4	McCauley	T-210
Ed. 3a	Language Arts—Primary Grades	MTWTh	1st Half Quarter	2	Dulin	T-218
Ed. 100e	Unit Course—County Superintendents, No. 14 (School Records and Reports), June 16-26	Daily	1st Half Quarter	1	Troxel	Ad-103

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Qr. Hrs.	Teacher	Suggested Room
Ed. 100g (Do not take Ed. 209 with Ed. 100g)	Unit Courses in Major Classes of Knowledge Unit 1—Recreational Education (June 16-26) Unit 2—Economic Industrial Education (June 30-July 10) Unit 3—Home and Family Education (July 30-August 10) Unit 4—Citizenship Education (August 14-24)	Daily Daily Daily Daily	1st Half Quarter 1st Half Quarter 2nd Half Quarter	1 1 1	Stutsman Binnewies Roudebush	Ad-203
Ed. 117	School Discipline	Daily	2nd Half Quarter	1	Rugg	
Ed. 128	County School Administration	MTWTh	2nd Half Quarter	2	Hunt	T-217
Ed. 150	Foundations of Method	MTWTh	2nd Half Quarter	2	Ogle	AG-207
		MTWTh	Ei. Hf. or Full Qr.	2-4	Risley, McClintock	AG-205
Ed. 151	Pre-School Education	MTWTh	Ei. Hf. or Full Qr.	2-4	Lyford	T-216
Ed. 168	Problems of Religious Education	MTThF	Ei. Hf. or Full Qr.	2-4	Wilson	T-220
Eng. 1	Literature for the Elementary School	MTThF	Full Quarter	4	Tobey	Ad-202
Eng. 4	Speaking and Writing	MTThF	Full Quarter	4	Pooley	Ad-301
Eng. 6	American Literature	TWThF	Full Quarter	4	Lindou	Ad-210
Eng. 13	Story Telling	MTThF	Ei. Hf. or Full Qr.	2-4	Stewart	Ad-300
Geog. 50	Home Geography and Geography of Colo.	MTThF	Full Quarter	4	Barker	GH-203
Hist. 1	Origins of American Nationality	MTWTh	Full Quarter	4	Peake	Ad-104
H. E. 5	Dress Appreciation	MTThF	Full Quarter	4	Roudebush	HE-301
H. E. 27	Observation and Methods	Arrange	Full Quarter	4	Newburn	HE-305
H. E. 103	Costume Design	MTThF	Full Quarter	4	Roudebush	HE-301
Ind. Ed. 201	Seminar	MTThF	Full Quarter	4	Hadden	G-101
Mus. 10	Methods for Teaching Music Reading	MTWTh	Full Quarter	4	Mohr	T-2
Mus. 20	History of Ancient Music	MTWTh	1st Half Quarter	2	Cline	Con-14
Mus. 21	History of Modern Music	MTWTh	2nd Half Quarter	2	Cline	Con-14
Mus. 23	Music Literature	MTWTh	2nd Half Quarter	2	Opp	Con-6
Nurs. Educ. 100	Prin. of Teaching Applied to Nursing Education	Daily	1st Half Quarter	2	Kandel	GH-205
P. E. 5	Folk Dancing (Beginning)	TThF	Ei. Hf. or Full Qr.	1/2-1	Cave	GH-107
P. E. 26	Swimming (Beginning)	MTWTh	Ei. Half Quarter	1	Springer	Pool
Psych. 2b	Educational Psychology	TWThF	Full Quarter	4	Poole	T-13

Time and Catalog No.	Descriptive Title of Course	Days	May Be Taken for Credit	Qr. Hrs.	Teacher	Suggested Room
Psych. 108b	Educational Measurements in Senior High School	MTWTh	Ei. Hf. or Full Qr.	2-4	Hertzberg	T-12
Psych. 118	Graphic Methods	MTWTh	Ei. Hf. or Full Qr.	2-4	Bishop	G-106
Psych. 216	Psychology of Individual Differences	MTWTh	1st Half Quarter	2	Merriman	T-219
Soc. 3	Educational Sociology	TWThF	Ei. Hf. or Full Qr.	2-4	Binnewies	Ad-208
Zool. 107	Elementary Entomology (Three hrs. Lab. by arrangement)	MTThF	Full Quarter	4	Harrah	Ad-304
<b>2:00—2:50</b>						
Art 122	Etching and Printmaking (double period)	TTh	1st Half Quarter	2	Thomas	G-204
Ath. 70	Advanced Swimming	Daily	Ei. Half Quarter	1	Brown, Cooper	Pool
Ed. 16	Camp Fire Leadership	MTWTh	Ei. Half Quarter	2	Lee	Ad-103
Ed. 17	Boy Scoutmaster's Training Course	MTWTh	1st Half Quarter	2	Moore	Ad-104
Ed. 100e	Unit Course—County Superintendents, No. 15 (Supervised Study), June 16-26	Daily	1st Half Quarter	1	Mahan	Ad-203
Ed. 100L	Unit Course in Educational Values, June 16-26	Daily	1st Half Quarter	1	Counts	Ad-210
Ed. 223	Research in Education—1st quarter—Thesis course for graduate students	MTWTh	Full Quarter	4	Whitney	T-217
H. E. 21	Foods and Cookery (double period)	MTThF	Full Quarter	4	Pickett	HE-207
H. E. 201	Advanced Textiles	MTThF	Full Quarter	4	Wiebking	HE-304
H. E. 226	Research in Nutrition	MT	Full Quarter	2	Newburn	HE-305
H. E. 240	Problems and Methods of Home Economics Teaching	MTWTh	Full Quarter	4	Roudebush	HE-301
Mus. 34	Class Piano Methods	MW	Ei. Hf.	1	Hughes	Con-6
Mus. 122	Appreciation of Music for the Concertgoer	TTh	1st Half Quarter	1	Southard	T-2
P. E. 100	Coaching Methods	MTWThF	Ei. Hf. or Full Qr.	1-2	Tenney	GH-107
<b>3:00—3:50</b>						
Ed. 100e	Unit Course—County Superintendents, No. 16, Practical Supervisory Methods for Rural Schools, June 16-26	Daily	1st Half Quarter	1	Ogle	Ad-103

Time and Catalogue No.	Descriptive Title of Course	Days	May Be Taken for Credit	Gr. Hrs.	Teacher	Suggested Room
Ed. 100j	Unit Course—International Education, June 16-26	Daily	1st Half Quarter	1	Counts	AG-210
H. E. 204	Housing and Its Relation Problems	MTWTh	Full Quarter	4	Roudebush	HE-301
H. E. 221	Experimental Cookery	MTThF	Full Quarter	4	Pickett	HE-202
Mus. 43	Orchestra	MW	Full Quarter	1	Thomas	Con-14
Mus. 44	Band	TTh	Full Quarter	1	Thomas	Con-14
P. E. 13a	Intermediate Tennis	MTTh	El. Hf. or Full Qr.	½-1	Tenney	GH-107
P. E. 27	Intermediate Swimming	MTWTh	El. Half Quarter	1	Doubenmier	Pool
4:00—4:50						
P. E. 13	Beginning Tennis	MTTh	El. Hf. or Full Qr.	½-1	Tenney	GH-107
5:00—5:50						
Mus. 101	Chorus (Selected)	MW	Full Quarter	1	Mohr	LTh



## Special Unit Courses in Education

---

Ed. 100e—Unit Courses for County Superintendents—June 16-26

Unit 14—School Records and Reports—Dr. Troxel—12 o'clock

Unit 15—Supervised Study—Dr. Mahan—2 o'clock

Unit 16—Practical Supervisory Methods—Mr. Ogle—3 o'clock

Ed. 100g—Unit Courses in Major Fields of Knowledge—12 o'clock

Unit 1—Recreational Education—Mr. Stutsman—June 16-26

Unit 2—Economic-Industrial Education—Dr. Binnewies—June  
30-July 10

Unit 3—Home and Family Education—Miss Roudebush—July  
30-August 10

Unit 4—Citizenship Education—Dr. Rugg—August 14-24

Ed. 100j—Unit Course in International Education (June 16-26)—Dr.  
Counts—3 o'clock

Ed. 100k—Unit Course in Guidance Problems in the Junior High School—  
(August 4-14)—Miss Hamilton—9 o'clock

Ed. 100l—Unit Course in Educational Values (June 16-26)—Dr. Counts—  
2 o'clock

Ed. 100m—Unit Course in Citizenship Education in the Junior High  
School—(June 30-July 10)—Miss Hamilton—9 o'clock

Ed. 129 at 11 o'clock will be the Book Review course in strictly education  
courses. Will be taught largely by visiting teachers.



FIRST WEEK: JUNE 16 to JUNE 21

- MONDAY, 7:00 P. M. All College Assembly, Gunter Hall. *Key Problems of the Teaching Profession*, DR. ELLWOOD P. CUBBERLEY, Stanford University. (Required Attendance)
- TUESDAY, 4:00 P. M. Book Review, DR. JESSE NEWLON, Teachers College, Columbia University, George S. Counts' *The American Road to Culture*. Little Theater.
- WEDNESDAY, 4:00 P. M. Book Review, DR. MARGARET MULRONEY, Colorado Teachers College, Thornton Wilder's *Woman of Andros*. Little Theater.
- WEDNESDAY, 7:00 P. M. Open Lecture, *A Problem in Modern Education*, DR. JESSE NEWLON. Little Theater.
- THURSDAY, 4:00 P. M. Book Review, MISS CAROLYN TOBEY, Greeley High School, Sir James Jeans' *The Universe Around Us*. Little Theater.
- THURSDAY, 7:00 P. M. Open Lecture, *The Sacramento School Survey*, DR. J. B. SEARS, Stanford University, Little Theater.
- SATURDAY, 8:15 P. M. George Bernard Shaw's *Pygmalion*. Presented by THE FACULTY PLAYERS of Colorado Teachers College. Little Theater. Reserved seats, 50 cents.
- FRIDAY, SATURDAY, AND SUNDAY, JUNE 20-22. Excursion to Grand Lake. (For details see bulletin *Student Outdoor Life*. This bulletin can be obtained in the Department of Publications.)

SECOND WEEK: JUNE 23 to JUNE 28

- MONDAY, 4:00 P. M. Book Review, MR. LESLIE D. LINDOU, Colorado Teachers College, Thomas Mann's *The Magic Mountain*. Little Theater.
- MONDAY, 7:00 P. M. All College Assembly. Lecture, *Education and Social Planning in Soviet Russia*, DR. GEORGE F. COUNTS, Teachers College, Columbia University. Gunter Hall. (Required Attendance)

- MONDAY, 8:15 P. M. George Bernard Shaw's *Pygmalion*. Presented by THE FACULTY PLAYERS of Colorado Teachers College. Little Theater. Reserved seats, 50 cents.
- TUESDAY, 4:00 P. M. Book Review, DR. EARLE UNDERWOOD RUGG, Colorado Teachers College, James Truslow Adams' *The Adams Family*. Little Theater.
- TUESDAY, 7:00 P. M. Open Lecture, *The Old Testament Prophets*, RABBI SAMUEL MAYERBERG, Kansas City. Little Theater.
- TUESDAY, 8:15 P. M. George Bernard Shaw's *Pygmalion*. Presented by THE FACULTY PLAYERS of Colorado Teachers College. Little Theater. Reserved seats, 50 cents.
- WEDNESDAY, 4:00 P. M. Book Review, DR. GEORGE S. COUNTS, Teachers College, Columbia University, Walter Lippman's *Preface to Morals*. Little Theater.
- WEDNESDAY, 7:00 P. M. Open Lecture, *Jewish Ethics*, RABBI SAMUEL MAYERBERG, Kansas City. Little Theater.
- THURSDAY, 2:00 P. M. *The Platoon School*, a regional conference. All interested members of the summer session are invited. Little Theater.
- THURSDAY, 4:00 P. M. Book Review, DR. A. EVELYN NEWMAN, Colorado Teachers College, H. M. Tomlinson's *All Our Yesterdays*. Little Theater.
- THURSDAY, 7:00 P. M. Open Lecture, *The Geology and Paleontology of the Pawnee Buttes*, MR. GEORGE A. BARKER. Little Theater. Note: This lecture is given especially as preparation for the excursion to the Buttes to be made July 5th.
- FRIDAY, JUNE 27 Island Grove Park. Men's Picnic.
- FRIDAY AND SATURDAY, JUNE 27 AND 28. Estes Park, Fall River and High Drive Tour. (See *Student Outdoor Life* for details.)

THIRD WEEK: JUNE 30 to JULY 5

- MONDAY, 4:00 P. M. Book Review, REV. ALFRED W. SWAN, Park Congregational Church, Greeley, Reinhold Nieburh's *Leaves from the Notebook of a Tamed Cynic*. Little Theater.
- MONDAY, 7:00 P. M. All College Assembly. Lecture, *A Survey and Diagnosis of the Present Age*, DR. EDWARD HOWARD GRIGGS. Gunter Hall. (Required Attendance.)
- TUESDAY, 4:00 P. M. Book Review. R. C. Sheriff's war drama *Journey's End*. Reviewed with readings by DR. W. F. SPAULDING, Greeley. Little Theater.
- TUESDAY, 7:00 P. M. Open Lecture, *Literature and American Culture*, DR. EDWARD HOWARD GRIGGS. Little Theater.
- WEDNESDAY, 4:00 P. M. Open Lecture, *Training Citizenship for America*, DR. EDWARD HOWARD GRIGGS. Little Theater.
- WEDNESDAY, 7:00 P. M. Open Lecture, *The Significance and Cultivation of Leadership*, DR. EDWARD HOWARD GRIGGS. Little Theater.
- THURSDAY, 4:00 P. M. Book Review, DR. O. M. DICKERSON, Colorado Teachers College, Rupert Hughes' *Life of Washington*, Vol. III. Little Theater.
- THURSDAY, 7:00 P. M. Open Lecture, *A Philosophy of Life for the Present Age*, DR. EDWARD HOWARD GRIGGS. Little Theater.
- FRIDAY, JULY 4 Independence Day (Holiday)
- SATURDAY, JULY 5 Excursion to Pawnee Buttes. (See *Student Outdoor Life* for details.)

FOURTH WEEK: JULY 7 to JULY 11

- MONDAY, 12:00 noon PROFESSOR BURGES JOHNSON of Syracuse University will speak in the Little Theater to the class in Journalism on the subject of *The Art of Writing*. Visitors are welcome.
- MONDAY, 3:00 P. M. Open Lecture, *The Literary Shop*, PROFESSOR BURGES JOHNSON, Syracuse University. Little Theater.
- MONDAY, 4:00 P. M. Book Review, PRESIDENT CHARLES MCKENNY, State Normal College, Ypsilanti, Michigan. Clarence Cook Little's *The Awakening College*. Little Theater.
- MONDAY, 7:00 P. M. All College Assembly. Lecture, *A Talk to Teachers*, DR. CHARLES MCKENNY, President State Normal College, Ypsilanti, Michigan. Gunter Hall. (Required Attendance.)
- TUESDAY, 11:00 A. M. PROFESSOR BURGES JOHNSON will speak in English 20 on *The Art and Business of Writing*. Visitors to the class are welcome.
- TUESDAY, 3:00 P. M. Open Lecture, *Provincialism: Where Does the West Really Begin?* MR. BURGES JOHNSON, Syracuse University. Little Theater.
- TUESDAY, 4:00 P. M. Book Review, Mr. John Drinkwater's comedy *Bird in Hand*. Reviewed with readings by DR. E. A. CROSS, Colorado Teachers College. Little Theater.
- TUESDAY, 7:00 P. M. Open Lecture, *The Lost Art of Profanity*, MR. BURGES JOHNSON, Syracuse University. Little Theater.
- WEDNESDAY, 4:00 P. M. Book Review, MRS. GERTRUDE SPAULDING, Greeley High School, *The Literary Work of Katherine Mansfield*. Little Theater.
- THURSDAY, 4:00 P. M. Book Review, MR. F. E. MERRILL, Editor of the Greeley Tribune, *The Plays of Franz Molnar*. Little Theater.
- FRIDAY AND SATURDAY, JULY 11 AND 12. Excursion to Colorado Springs, Manitou, and the top of Pike's Peak. (See *Student Outdoor Life* for details.)

## FIFTH WEEK: JULY 14 to JULY 18

- MONDAY, 4:00 P. M. Book Review, DR. IRA W. HOWERTH, Colorado Teachers College, Lowie's *Are We Civilized?* Little Theater.
- MONDAY, 7:00 P. M. All College Assembly. Lecture, *Vergil's Life and Works*. An address commemorating the two thousandth anniversary of the birth of Vergil. By PROFESSOR WILLIAM OLDFATHER of the University of Illinois. Gunter Hall. (Required Attendance.)
- TUESDAY, 4:00 P. M. Book Review, MISS FRANCES TOBEY, Colorado Teachers College, John Balderson's *Berkeley Square*. Reviewed with readings. Little Theater.
- WEDNESDAY, 4:00 P. M. Book Review, DR. J. D. HELLMAN, Colorado Teachers College, Karl Meininger's *The Human Mind*. Little Theater.
- THURSDAY, 4:00 P. M. Book Review, MR. JAMES H. RISLEY, Superintendent of Schools, Pueblo Colorado, O. E. Rolvaag's *Pure Gold*. Little Theater.
- SATURDAY, 3:00 P. M. The Kindergarten-Primary Tea. Club House. (By invitation.)

## SIXTH WEEK: JULY 21 to JULY 25

- MONDAY, 3:00 P. M. Open Lecture, *The Work of the Junior Red Cross*, MISS JEANETTE RIEFLING. Little Theater.
- MONDAY, 4:00 P. M. Book Review, MISS MARGARET BLACKBURN, Colorado Teachers College, George Kelley's *Behold the Bridegroom*. Reviewed with readings. Little Theater.
- MONDAY, 7:00 P. M. All College Assembly. Lecture, *The New Patriotism*, HONORABLE WILLIAM E. SWEET, Denver. Gunter Hall. (Required Attendance.)
- TUESDAY, 3:00 P. M. Open Lecture, *The Junior Red Cross*, MISS JEANETTE RIEFLING. Little Theater.
- TUESDAY, 4:00 P. M. Book Review, DR. MERLE PRUNTY, Superintendent of Schools, Tulsa, Oklahoma, John Rathbone Oliver's *Foursquare and Victor and Victim*. Little Theater.

TUESDAY, JULY 22 TO SATURDAY, JULY 26. Excursions to Cheyenne Frontier Days. (See *Student Outdoor Life* for details.)

WEDNESDAY, 4:00 P. M. Book Review, MISS JOSEPHINE HAWES, Colorado Teachers College, Marc Connelly's *The Green Pastures*. Reviewed with readings. Little Theater.

THURSDAY, 4:00 P. M. Book Review, MR. ROBERT POOLEY, Colorado Teachers College, Susan Glaspell's *They Scooped to Folly*. Little Theater.

SATURDAY, JULY 26 Excursion to Lookout Mountain, Echo Lake, and the summit of Mount Evans. (See *Student Outdoor Life* for details.)

#### SEVENTH WEEK: JULY 28 to AUGUST 1

MONDAY, 4:00 P. M. Book Review, DR. FREDERICK L. WHITNEY, Colorado Teachers College, Robert and Helen Lynd's *Middletown*. Little Theater.

MONDAY, 7:00 P. M. All College Assembly. Lecture, *The United States and World Affairs*. DR. GEORGE EARLE RAIGUEL, Philadelphia, Pennsylvania. Gunter Hall. (Required Attendance.)

TUESDAY, 4:00 P. M. Book Review, DR. GEORGE EARLE RAIGUEL, Emil Ludwig's *July '14*. Little Theater.

TUESDAY, 7:00 P. M. Open Lecture, *Social and Economic Progress in the United States*, DR. GEORGE EARLE RAIGUEL. Little Theater.

WEDNESDAY, 4:00 P. M. Book Review, MR. GEORGE A. BARKER, Colorado Teachers College, Bernard Faye's *Benjamin Franklin*. Little Theater.

WEDNESDAY, 7:00 P. M. Open Lecture, *Politics in the New Europe*. DR. GEORGE EARLE RAIGUEL. Little Theater.

THURSDAY, 4:00 P. M. A Review of Recent American Poetry by JESSIE B. RITTENHOUSE, poet and editor.



THURSDAY, 7:00 P. M. Open Lecture, *Oriental Problems: Japan, China, India*, DR. GEORGE EARLE RAIGUEL. Little Theater.

FRIDAY, 4:00 P. M. An Informal lecture on Modern British Poets and Poetry, by JESSIE B. RITTENHOUSE.

FRIDAY, 7:00 P. M. Open Lecture, *Some Causes of Unrest in the World*, DR. GEORGE EARLE RAIGUEL. Little Theater.

SATURDAY, AUGUST 2 Excursion to Denver and Elitch Gardens. (See *Student Outdoor Life* for details.)

#### EIGHTH WEEK: AUGUST 4 to AUGUST 8

MONDAY, 4:00 P. M. Book Review, Elmer Rice's *Street Scene*. Reviewed with readings by MISS FRANCES TOBEY, Colorado Teachers College. Little Theater.

MONDAY, 7:00 P. M. All College Assembly, Musical Program. Conservatory of Music. Direction of MR. J. DE FOREST CLINE, Colorado Teachers College. Gunter Hall. (Required Attendance.)

TUESDAY, 4:00 P. M. Book Review, DR. W. D. ARMENTROUT, Colorado Teachers College, John Dewey's *Quest for Certainty*. Little Theater.

WEDNESDAY, 4:00 P. M. Book Review, MISS ANNE MAXVILLE, Colorado Teachers College, Hugh Walpole's *Rogue Herries*. Little Theater.

THURSDAY, 4:00 P. M. Book Review. St. John Irvine's *The First Mrs. Frasier*, reviewed by DR. E. A. CROSS, Greeley. Little Theater.

NINTH WEEK: AUGUST 11 to AUGUST 15

- MONDAY, 4:00 P. M. Open Lecture, *Irish Dramatic Literature\**, DR. JAMES MURPHY, Dublin. Little Theater.
- MONDAY, 7:00 P. M. All College Assembly. Lecture, *Social and Economic Problems in Europe*, DR. JAMES MURPHY. Gunter Hall. (Required Attendance.)
- TUESDAY, 4:00 P. M. Open Lecture, *Current Literature in Europe*, DR. JAMES MURPHY. Little Theater.
- TUESDAY, 7:00 P. M. Open Lecture, *Social and Economic Problems in Europe*, DR. JAMES MURPHY. Little Theater.
- TUESDAY, 8:15 P. M. Moliere's comedy, *The Nobody Who Apes Nobility* (Le Bourgeois Gentilhomme), THE COFFER-MILLER PLAYERS. Little Theater. Reserved seats, 50 cents.
- WEDNESDAY, 4:00 P. M. Open Lecture, *Current European Literature*, DR. JAMES MURPHY. Little Theater.
- WEDNESDAY, 7:00 P. M. Open Lecture, *Social and Economic Problems in Europe*, DR. JAMES MURPHY. Little Theater.
- WEDNESDAY, 8:15 P. M. A. E. Thomas' comedy, *Her Husband's Wife*. THE COFFER-MILLER PLAYERS. Little Theater. Reserved seats, 50 cents.
- THURSDAY, 4:00 P. M. Open Lecture, *Current European Literature*, DR. JAMES MURPHY. Little Theater.
- THURSDAY, 7:00 P. M. Open Lecture, *Social and Economic Problems in Europe*, DR. JAMES MURPHY. Little Theater.
- FRIDAY, 4:00 P. M. Open Lecture, *Current European Literature*, DR. JAMES MURPHY. Little Theater.

\*DR. JAMES MURPHY, foreign editor of *The Forum*, will give ten lectures in all. The series of five in the afternoons of the week will deal with current literature in Europe. The evening lectures will all deal with social and economic problems in Europe. This bulletin goes to press before Dr. Murphy's list could reach us. He has spent the year in Ireland, England, France, Italy, and Germany.

FRIDAY, 7:00 P. M. Open Lecture, *Social and Economic Problems in Europe*, DR. JAMES MURPHY. Little Theater.

TENTH WEEK: AUGUST 18 to AUGUST 23

MONDAY, 4:00 P. M. Book Review, MR. ALBERT F. CARTER, Colorado Teachers College, Francis Hackett's *Henry the Eighth*. Little Theater.

MONDAY, 7:00 P. M. All College Assembly. Gunter Hall. (Required Attendance.)

TUESDAY, 4:00 P. M. Book Review, MRS. W. E. ANDERSON, Greeley, *Galsworthy and Barrie—A Contrast*. Little Theater.

WEDNESDAY, 4:00 P. M. Book Review, MISS MADELINE WYER, Colorado Teachers College, Oliver Lafarge's *Laughing Boy*. Little Theater.

THURSDAY AND FRIDAY, AUGUST 21 AND 22. Final examinations for the quarter.

SATURDAY, AUGUST 23, 10:00 A. M. The Summer Quarter Convocation, College Campus.



**COLORADO STATE TEACHERS COLLEGE**

**BULLETIN**



**ANNOUNCEMENT**  
OF THE  
**GRADUATE SCHOOL**  
**1930-31**

**GREELEY, COLORADO**



**COLORADO STATE**  
**TEACHERS COLLEGE**  
Greeley, Colo.





**ANNOUNCEMENT  
OF THE  
GRADUATE SCHOOL  
1930-1931**

**Published by the College  
GREELEY, COLORADO**

# 1930—THE COLLEGE CALENDAR—1931

1930

## SPRING QUARTER

<i>Mar. 24,</i>	<i>Monday</i> .....	REGISTRATION OF NEW STUDENTS. CLASSES BEGIN
<i>May 2,</i>	<i>Friday</i> .....	INSIGNIA DAY
<i>May 30,</i>	<i>Friday</i> .....	MEMORIAL DAY (Holiday)
<i>June 5-6,</i>	<i>Thursday, Friday</i>	FINAL EXAMINATIONS
<i>June 7,</i>	<i>Saturday</i> .....	COMMENCEMENT DAY

## SUMMER QUARTER

<i>June 14,</i>	<i>Saturday</i> .....	REGISTRATION
<i>June 16,</i>	<i>Monday</i> .....	CLASSES BEGIN
<i>July 4,</i>	<i>Friday</i> .....	INDEPENDENCE DAY (Holiday)
<i>July 19,</i>	<i>Saturday</i> .....	FIRST HALF ENDS (Registration for second half quarter)
<i>July 21,</i>	<i>Monday</i> .....	SECOND HALF BEGINS
<i>Aug. 23,</i>	<i>Saturday</i> .....	SUMMER CONVOCATION

## FALL QUARTER

<i>Sept. 25,</i>	<i>Thursday</i> .....	FRESHMAN WEEK BEGINS; 10:30, LITTLE THEATRE
<i>Sept. 29,</i>	<i>Monday</i> .....	REGISTRATION OF FRESHMEN
<i>Sept. 30,</i>	<i>Tuesday</i> .....	REGISTRATION OF UPPER CLASSMEN
<i>Oct. 1,</i>	<i>Wednesday</i> .....	CLASSES BEGIN
<i>Nov. 11,</i>	<i>Tuesday</i> .....	ARMISTICE DAY (Holiday)
<i>Nov. 27-28,</i>	<i>Thursday, Friday</i>	THANKSGIVING (Holiday)
<i>Dec. 13,</i>	<i>Saturday</i> .....	ADVANCED REGISTRATION FOR WINTER QUARTER
<i>Dec. 18-19,</i>	<i>Thursday, Friday</i>	FINAL EXAMINATIONS
<i>Dec. 20,</i>	<i>Saturday</i> .....	CHRISTMAS VACATION BEGINS

## WINTER QUARTER

<i>Dec. 29,</i>	<i>Monday</i> .....	REGISTRATION OF NEW STUDENTS
<i>Dec. 30,</i>	<i>Tuesday</i> .....	CLASSES BEGIN
1931		
<i>Jan. 1,</i>	<i>Thursday</i> .....	NEW YEAR'S DAY (Holiday)
<i>Mar. 7,</i>	<i>Saturday</i> .....	ADVANCED REGISTRATION FOR SPRING QUARTER
<i>Mar. 13-14,</i>	<i>Friday, Saturday</i>	FINAL EXAMINATIONS
<i>Mar. 15,</i>	<i>Sunday</i> .....	SPRING VACATION BEGINS

## SPRING QUARTER

<i>Mar. 23,</i>	<i>Monday</i> .....	REGISTRATION OF NEW STUDENTS. CLASSES BEGIN
<i>May 1,</i>	<i>Friday</i> .....	INSIGNIA DAY
<i>June 4-5,</i>	<i>Thursday, Friday</i>	FINAL EXAMINATIONS
<i>June 6,</i>	<i>Saturday</i> .....	COMMENCEMENT

## SUMMER QUARTER

<i>June 13,</i>	<i>Saturday</i> .....	REGISTRATION
<i>June 15,</i>	<i>Monday</i> .....	CLASSES BEGIN
<i>July 4,</i>	<i>Saturday</i> .....	INDEPENDENCE DAY (Holiday)
<i>July 18,</i>	<i>Saturday</i> .....	FIRST HALF ENDS (Registration for second half quarter)
<i>July 20,</i>	<i>Monday</i> .....	SECOND HALF BEGINS
<i>Aug. 22,</i>	<i>Saturday</i> .....	SUMMER CONVOCATION

# TABLE OF CONTENTS

	Page
<b>GOVERNMENT</b>	
1. BOARD OF TRUSTEES.....	5
2. OFFICERS OF THE BOARD OF TRUSTEES.....	5
<b>ADMINISTRATION</b>	
1. OFFICERS OF ADMINISTRATION.....	6
2. THE GRADUATE COUNCIL.....	6
<b>FACULTY</b>	
1. RESIDENT GRADUATE SCHOOL FACULTY.....	7
2. VISITING FACULTY.....	10
<b>THE GRADUATE SCHOOL</b>	
1. LOCATION .....	13
2. HISTORICAL .....	13
3. PLANT .....	14
4. HISTORY AND ORGANIZATION.....	14
5. PURPOSE OF THE GRADUATE SCHOOL.....	15
6. DEGREE OF MASTER OF ARTS.....	16
7. ADMISSION TO THE GRADUATE SCHOOL.....	16
8. GRADUATE STUDY.....	17
9. ADDITIONAL COURSES WHICH MAY BE TAKEN FOR CREDIT.....	19
10. AUDITORS .....	19
11. SPECIAL STUDENTS.....	20
12. ADMISSION TO CANDIDACY.....	20
13. AD INTERIM WORK ON MASTER'S STUDY.....	21
14. TIME LIMIT FOR DEGREE.....	21
15. REQUIREMENTS FOR THE DEGREE.....	22
16. THESIS .....	23
17. TITLE OF THESIS.....	24
18. THE DEGREE OF DOCTOR OF PHILOSOPHY.....	25
19. LIFE CERTIFICATE.....	26
20. EXTENSION WORK.....	26
21. THE DEPARTMENT OF TRAINING SCHOOLS.....	28
22. LIBRARY .....	28
23. SCHOOL YEAR.....	29
24. FEES .....	29

25. LIVING EXPENSES.....	31
26. FELLOWSHIPS AND SCHOLARSHIPS.....	31
31. LOAN FUNDS.....	32
32. HONORARY FRATERNITIES.....	32
33. HEALTH SERVICE.....	33
34. MUSEUM OF NATURAL HISTORY.....	33
35. STENOGRAPHIC BUREAU.....	34
36. THE COLLEGE PLACEMENT BUREAU.....	34
37. STUDENTS' EMPLOYMENT BUREAU.....	34
38. RECREATIONAL AND SCENIC TOURS.....	35
39. THE COURSE OF STUDY.....	36
40. ENROLLMENT.....	50

# THE GRADUATE SCHOOL

HARRY V. KEPNER, Sc.D.

President of the Board of Trustees

GEORGE WILLARD FRASIER, Ph.D., LL.D.

President of the College

## BOARD OF TRUSTEES

*(Appointed by the Governor of the State of Colorado)*

EARL M. HEDRICK .....	Wray, Colo.
CHARLES N. JACKSON .....	Greeley, Colo.
HARRY V. KEPNER, Sc.D. ....	Denver, Colo.
T. W. MONELL .....	Montrose, Colo.
CLIFFORD P. REX, D.D.S. ....	Alamosa, Colo.
C. H. STEWART .....	Delta, Colo.
KATHERINE L. CRAIG .....	Denver, Colo.

(State Superintendent of Public Instruction, Ex-Officio)

## OFFICERS OF THE BOARD OF TRUSTEES

DR. KEPNER .....	President
DR. REX .....	Vice-President
MR. MCMURDO .....	Secretary
DR. KEPNER, MR. JACKSON, MR. HEDRICK .....	
.....	Executive Committee for Colorado State Teachers College

OFFICERS OF ADMINISTRATION  
OF THE  
GRADUATE SCHOOL

GEORGE WILLARD FRASIER, Ph.D., LL.D.....President  
FRANK COVERT JEAN, Ph.D.....Director

THE GRADUATE COUNCIL

Frank Covert Jean, Ph.D., Chairman; Paul McKee, Ph.D., Vice-chairman; J. D. Heilman, Ph.D., Secretary; Earle U. Rugg, Ph.D.; O. M. Dickerson, Ph.D.; W. G. Bowers, Ph.D.; F. L. Whitney, Ph.D.; Annie McCowen, Ph.D.; Vice-president of the College ex-officio.

# FACULTY OF THE GRADUATE SCHOOL

GEORGE WILLARD FRASIER, A.B., A.M., Ph.D., LL.D. *President*

MRS. LUCY HARTT ADAMS, A.B., A.M. *Dean of Women*

WINFIELD DOCKERY ARMENTROUT, A.B., A.M., Ed.D. *Director of Instruction;  
Director of Training Schools;  
Professor of Education*

GRACE M. BAKER, A.B., A.M. *Professor of Art;  
Head of Department*

GEORGE ALEXANDER BARKER, B.S., M.S. *Professor of Geography;  
Head of Department*

JOHN RANDOLPH BELL, Ph.B., A.M., Litt.D. *Professor of Education*

RALPH THOMAS BISHOP, A.B., A.M. *Professor of Industrial Education*

MARGARET BLACKBURN, A.B., A.M. *Assistant Professor of English*

HAROLD GRANVILLE BLUE, A.B., A.M. *Head of Department of Sociology*

WILLIAM GRAY BOWERS, B.S., A.M., Ph.D. *Professor of Chemistry;  
Head of Department*

MARGARET ELIZABETH BRYSON, A.B., A.M., M.D. *Professor of Physical  
Education for Women;  
Medical Adviser of Women*

ELIZABETH CARNEY, A.B., A.M. *Assistant Professor  
of Secondary English;  
Training Teacher, Teachers College High School*

ALBERT FRANK CARTER, A.B., M.S. *Professor of Library  
Administration;  
College Librarian*

JEAN CAVE, B.S., A.M. *Professor of Physical Education for Women;  
Head of Department*

AMBROSE OWEN COLVIN, B.C.S., A.M. *Professor of Commercial  
Education;  
Head of Department*

ETHAN ALLEN CROSS, A.B., A.M., Ph.D. *Vice-President of College;  
Professor of English;  
Head of Department*

GENEVIEVE DAVIS, A.B., A.M. *Assistant Professor  
of Secondary Foreign Languages;  
Training Teacher, Teachers College High School*

\*HELEN CALDWELL DAVIS, A.B., A.M. *Principal of Teachers College  
Elementary School;  
Professor of Elementary Education*

- OLIVER MORTON DICKERSON, A.B., A.M., Ph.D.      *Professor of History  
and Political Science;  
Head of Department*
- RICHARD GORDON ELLINGER, A.B.      *Associate Professor of Art*
- GEORGE WILLIAM FINLEY, B.S., M.S.      *Professor of Mathematics;  
Head of Department*
- CHESTER KIMES FLETCHER, A.B., A.M.      *Associate Professor  
of Extra-Mural Education*
- \*CATHERINE CRATES GIBERT, A.B., A.M.      *Associate Professor  
of Foreign Languages*
- SAMUEL MILO HADDEN, A.B., A.M.      *Professor of Industrial Education;  
Head of Department*
- WILLIAM HENRY HARGROVE, B.S., A.M.      *Professor of Rural Education*
- EZRA CLARENCE HARRAH, A.B., A.M., Ph.D.      *Associate Professor  
of Zoology*
- JOSEPHINE MARY HAWES, A.B., A.M.      *Associate Professor of English*
- JACOB DANIEL HEILMAN, A.B., A.M., Ph.D.      *Professor of Educational  
Psychology;  
Head of Department*
- FRED LOUIS HERMAN, B.S., A.M.      *Associate Professor of Science;  
Training Teacher, Teachers College High School*
- OSCAR EDWARD HERTZBERG, A.B., A.M., Ph.D.      *Professor of Educational  
Psychology*
- IRA WOODS HOWERTH, A.B., A.M., Ph.D.      *Professor of Sociology  
and Economics*
- FRANK COVERT JEAN, A.B., A.M., Ph.D.      *Director of the Graduate  
School;  
Professor of Biology;  
Head of Department*
- WINFIELD LEROY KNIES, A.B., A.M.      *Associate Professor  
of Commercial Education*
- GENEVIEVE LYFORD, B.S., A.M.      *Professor of Pre-School Education;  
Training Teacher, Teachers College Elementary School*
- ANNIE MARGARET McCOWEN, B.S., A.M., Ph.D.      *Professor of Elementary  
Education;  
Training Teacher, Teachers College Elementary School*
- PAUL MCKEE, A.B., A.M., Ph.D.      *Professor of Elementary Education*
- THOMAS JEFFERSON MAHAN, A.B., A.M., Ph.D.      *Dean of Men;  
Professor of Education*
- ARTHUR ERNEST MALLORY, A.B., A.M.      *Professor of Mathematics*
- \*ROBERT HUGH MORRISON, A.B., A.M.      *Director of Extension Service;  
Professor of Extra-Mural Education*



- MARGARET MULRONEY, A.B., A.M., Ph.D.      *Professor of Foreign Languages; Head of Department*
- VERA NEWBURN, B.S., M.S.      *Associate Professor of Home Economics; Training Teacher, Teachers College Elementary and Secondary Schools*
- A. EVELYN NEWMAN, Ph.B., A.M., Ph.D.      *Professor of English and Literature*
- ORA BROOKS PEAKE, A.B., A.M.      *Associate Professor of History*
- KENNETH FREDERICK PERRY, A.B., A.M.      *Assistant Professor of Industrial Education; Training Teacher, Teachers College Elementary and Secondary Schools*
- ETHEL BLANCHE PICKETT, B.S., A.M.      *Associate Professor of Home Economics*
- PAULINE CRAIG POGUE, A.B., A.M.      *Dean of High School Girls; Assistant Professor of Secondary History*
- ROBERT CECIL POOLEY, A.B., A.M.      *Assistant Professor of Secondary English*
- JAMES H. RISLEY, A.B., A.M.      *Professor of Extra-Mural Education*
- \*LUCY LYNDE ROSENQUIST, B.S., A.M.      *Associate Professor of Primary Education; Training Teacher, Teachers College Elementary School*
- EARLE UNDERWOOD RUGG, A.B., A.M., Ph.D.      *Professor of Education; Head of Department*
- CHARLES RICHARD SATTGAST, B.S., A.M.      *Associate Professor of Extra-Mural Education*
- EDITH MARIE SELBERG, A.B., A.M.      *Assistant Professor of Biology*
- A. L. THRELKELD, B.S., A.M.      *Professor of Extra-Mural Education*
- \*FRANCES TOBEY, A.B.      *Professor of English*
- OLIVER LEONARD TROXEL, B.S., A.B., A.M., Ph.D.      *Professor of Education*
- FLOSS ANN TURNER, Ph.B., A.M.      *Associate Professor of Primary Education*
- CHARLES FRANKLIN VALENTINE, A.B., A.M.      *Professor of Physics; Head of Department*
- SUSAN HART VAN METER, B.S., A.M.      *Associate Professor of Elementary Education*
- WALLACE THEODORE WAIT, B.S., A.M., Ph.D.      *Associate Professor of Educational Psychology*

LEE ROY WEST, A.B., A.M.	<i>Assistant Professor of Geography</i>
FREDERICK LAMSON WHITNEY, Ed.B., A.M., Ph.D.	<i>Director of Educational Research; Professor of Education</i>
EDITH GALE WIEBKING, A.B., A.M.	<i>Associate Professor of Household Arts</i>
*GRACE HANNAH WILSON, A.B., A.M.	<i>Director of Religious Activities; Associate Professor of Education</i>
WILLIAM LAWRENCE WRINKLE, A.B., A.M.	<i>Principal of Teachers College High School; Professor of Secondary Social Science</i>
ARTHUR FRANKLIN ZIMMERMAN, A.B., A.M., Ph.D.	<i>Assistant Professor of History</i>

## VISITING GRADUATE FACULTY

SUMMER 1930

ANN ARVIDSON, A.B., A.M.,	<i>Head of Biology Department, Iberia College, Iberia, Missouri</i>
GEORGE S. COUNTS, A.B., A.M., Ph.D.	<i>Assistant Director of International Institute, Columbia University</i>
ELWOOD PATTERSON CUBBERLY, A.B., A.M., Ph.D.	<i>Dean of School of Education Leland Stanford Junior University, Palo Alto, California</i>
FRANKLIN G. EBAUGH, A.B., A.M.	<i>Director of Psychopathic Hospital, Denver, Colorado</i>
FREDERICK LINDER FITZPATRICK, A.B., A.M., Ph.D.	<i>Head of Zoology Department, Coe College, Cedar Rapids, Iowa</i>
JESSIE HAMILTON, A.B., A.M.	<i>Principal, Morey Junior High School, Denver, Colorado</i>
R. L. HUNT, A.B., A.M.	<i>Director of Training Schools, South Dakota State Normal School, Madison, South Dakota</i>
ROBERT DAVID McCLINTOCK, A.B., A.M.	<i>Superintendent of Schools, Julesburg, Colorado</i>
CURTIS MERRIMAN, A.B., A.M., Ph.D.	<i>Professor of Psychology, University of Wisconsin, Madison, Wisconsin</i>
LOUISE NABER, A.B.	<i>Supervisor of Art Education, Phoenix, Arizona</i>

\*On leave school year 1930-31

- JESSE H. NEWLON, A.M., Ph.D.      *Principal of Lincoln School  
Teachers College, Columbia University*
- FLETCHER ANDREW OGLE, A.B., A.M.      *Superintendent of Public  
Instruction Weld County, Greeley, Colorado*
- GLADYS POOLE, A.B., A.M.      *Professor of Psychology  
State Teachers College, Trenton, New Jersey*
- SAMUEL R. POWERS, A.B., A.M., Ph.D.      *Professor of Natural Sciences,  
Columbia University*
- MERLE PRUNTY, A.B., A.M., Ph.D.      *Superintendent of Schools,  
Tulsa, Oklahoma*
- MARQUES E. REITZEL,      *Professor of Fine Arts,  
Rockford College, Rockford, Illinois*
- RALEIGH SCHORLING, A.B., A.M., Ph.D.      *Professor of Education  
and Supervisor of Directed Teaching and Instruction,  
University of Michigan, Ann Arbor, Michigan*
- DR. JESSE SEARS, A.M., Ph.D.      *Professor of Education,  
Leland Stanford Junior University,  
Palo Alto, California*
- ALBERT E. SHIRLING, A.B., A.M.      *Professor of Natural Sciences,  
Kansas City Teachers College,  
Kansas City, Missouri*
- ISAAC E. STUTSMAN, A.B., A.M.      *Superintendent of Schools,  
Greeley, Colorado*



# THE GRADUATE SCHOOL

## LOCATION

Colorado State Teachers College is located in Greeley, Colorado, fifty-five miles north of Denver. Greeley is a city of 14,000 population and is surrounded by the largest area of fertile irrigated land in the United States. It is located on the Union Pacific and Colorado & Southern railroads. The city is connected with Denver by a concrete pavement, and a splendid surfaced highway leads to the beautiful Estes Park region. The train schedule and three well established bus lines give almost hourly service to Denver and intermediate points. Greeley has an elevation of 4670 ft. and commands a view of the rugged Rockies for a stretch of over one hundred twenty-five miles. It is a city of modest but nicely kept homes. The main thoroughfares are paved, and its wide spacious streets in the residential district are lined with rows of magnificent trees. The elevation, mild climate, and nearness to the mountains make it a healthful and pleasant place in which to live and study.

## HISTORICAL

The State Normal School of Colorado was established by act of the legislature in 1889. The first school year began October 6, 1890. In 1911, the institution was raised to the rank of a college and its name changed to the State Teachers College of Colorado. Since the school's inception as a college, the administration has centered on one purpose only as the function of the school. That objective is to make it a teacher-training institution of the first rank. The college is considered by the president and Board of Trustees to be a technical school in the same sense that a college of engineering or a college of medicine is a technical institution. Its courses are organized and its requirements made with the object of giving the best academic and professional training possible to prospective teachers.

Students with different objectives are frankly advised to attend other institutions better suited to their needs.

### PLANT

The physical plant consists of twelve attractive buildings designated as follows: Administration Building, Library, Training School, Industrial Arts Building, Conservatory of Music, Home Economics Practice House, Students' Club House, Home Economics Building, Gunter Hall of Health, and three dormitories—Belford Hall, Decker Hall, and Gordon Hall. This group of buildings is to be supplanted in the summer of 1930 by the erection of a faculty club house to cost approximately \$65,000, which will be financed by the faculty members themselves.

Aside from the dormitories and club houses, each building is provided with a number of comfortable class rooms and laboratories.

Surrounding the buildings is a beautiful campus of sixty-five and one-half acres. It is covered with trees and a splendidly kept lawn and is dotted here and there with shrubs and flowers.

### HISTORY AND ORGANIZATION

By authority of the Board of Trustees provision for graduate study at Colorado State Teachers College was made in the spring of 1913, and in the beginning of the summer quarter of that year classes were organized and the work of graduate study begun under the direction of a special committee. At the time the college had a small number of resident graduates, who took advantage of the new offerings and thus constituted the first graduate class.

The first degrees were conferred in 1914 when there were two candidates. During the year 1928-1929, sixty-one candidates received the degree of Master of Arts.

The aim of this new organization was advanced study beyond the Bachelor of Arts degree and leading to the Master of Arts degree. The general requirements were

one year of study in residence in advance of the work required for the Bachelor of Arts degree, and research culminating in a written thesis on some vital problem of education.

Under the leadership of different men who served both as the head of the Department of Education and dean of the Graduate School, the work continued under much the same plan until the present administration. For two years thereafter, it was administered through a co-operative policy between the Department of Research and the heads of the other departments. In 1926, the graduate work was placed under the direction of a Graduate Council consisting of seven members appointed by the president together with the president and vice-president as members ex-officio.

In the course of three years, the rapidly increasing number of graduate students together with the additional work entailed demanded a different type of administrative organization. So, beginning with the summer session of 1930, the graduate work is to proceed under a new plan. By action of the Board of Trustees, the Graduate School will be organized as a separate and distinct administrative unit of the college. The legislative and advisory functions with reference to the school are to be vested in the Graduate Council appointed by the president. The executive functions are to be exercised by an administrative officer to be designated as the director of the Graduate School.

Recently steps have been taken to offer work in certain departments leading to the Doctor of Philosophy degree.

## PURPOSE OF THE GRADUATE SCHOOL

The purpose of the Graduate School is to increase the candidate's efficiency as a teacher and an independent worker in the field of education. To achieve these ends, three main phases of his training are emphasized: (1) To give the candidate a better background of academic

information in his major and related fields; (2) To enlarge his knowledge in the professional field of education and educational psychology to the end that he may better understand the learner's mind, its laws of growth, and the means to be employed in its development; (3) To acquaint the student with the elements of research technic in order to give him some degree of facility in attacking and solving problems similar to those that will later confront him in his professional life.

### DEGREE OF MASTER OF ARTS

On this level the Graduate School recognizes two classes of graduate students: (1) Regular students who wish to enter and become candidates for the degree, Master of Arts; (2) Special students who, having taken a Bachelor's degree, wish to broaden their education without reference to a higher degree.

### ADMISSION TO THE GRADUATE SCHOOL

1. Application for admission for either of the purposes named above shall be made to the registrar of the College. Formal blanks for this purpose will be furnished by his office.

2. The requirements for admission:

- a. The degree, Bachelor of Arts, Philosophy, Science or other four-year degree from a reputable institution authorized by law to confer these degrees and approved by this institution
- b. All undergraduates in Colorado State Teachers College who are within four hours of meeting the requirements for the A. B. degree may be admitted to the Graduate School, provided they carry twelve hours of graduate work



- c. Official credentials to be filed with the registrar giving
  - (1) A record of high school work
  - (2) Transcript of the undergraduate college or university grades. Students, if possible, should present these credentials two months before entrance. If the required credentials have not been filed previously with the registrar, the student's registration will be considered tentative until this requirement is met

Excess undergraduate work taken in Colorado State Teachers College may be applied toward the Master of Arts Degree, provided the student files with the registrar, prior to the time the work is done, a statement from the director of the Graduate School granting him the privilege to do this. Such credit will be granted only to students who in their fourth year do not need all of their time for the completion of their undergraduate work. The graduate class card (pink) must be used by students who wish credit for courses taken under this provision.

A student must take at least one course of graduate rank to be enrolled as a graduate student. Otherwise his status will be that of an undergraduate student.

The student's first quarter in the Graduate School is considered to be a test of his ability to do acceptable graduate work. Any student whose record or personal qualifications at the end of the first quarter are unsatisfactory will not be admitted to candidacy for the degree.

Admission to the Graduate School *does not guarantee admission to candidacy* for the Master of Arts Degree.

## GRADUATE STUDY

1. Students entering the Graduate School should realize that their status is different from that of the undergraduate. Administrative machinery cannot be wholly

dispensed with, so minimum requirements must be made. However, the aim of the graduate student should not be to meet requirements primarily. He should see in his graduate experience the opportunity to enlarge his knowledge and make himself an *independent* worker. To realize these ends, his interest and effort should carry him beyond the bounds of mere requirements. His achievement should be limited only by the time, energy, and ability at his command.

2. The department in which the student elects to do the greater part of his work is designated as his "major department". While no definite credit hour regulations as to majors and minors are set, nevertheless the graduate student's efforts should not be scattered and unrelated. Narrow specialization within a single field in most cases is not advised, but the candidate's work should be characterized by a certain definiteness and unity. To this end the student and his major professor are expected at the outset to formulate a tentative three quarter program of articulate courses to be approved by the director of the Graduate School.

3. No graduate credit will be given for courses numbered under 100, or for scattered and unrelated courses.

4. All courses numbered under 200 require additional work for graduate credit. The additional work consists of requirements such as special reports, term papers, or original research. The particular requirement made in each case must be indicated by the instructor on the back of the student's class card before it is filed with the registrar at the end of the quarter.

5. Fellows are required to reduce their student load in proportion to the amount of assistance given the college.

6. Sixteen quarter hours are recognized as constituting a full program for the graduate student. However, if

his classification tests are sufficiently high, on the recommendation of his major professor, he may be permitted by the director of the Graduate School to carry a *maximum* of seventeen or eighteen hours. Research upon the thesis must be included within the limit stated.

7. Not more than one-half (twenty-four quarter hours) of the student's graduate credit shall fall below the grade of "B". Otherwise, he will be required to do additional work to complete the requirement for the degree.

8. Graduate students will not be permitted to engage in more than one extra-curricular activity per quarter and then only when they reach a fifty percentile rank on the intelligence test and have made an average of "B" or more in their course work. Extra-curricular activities shall be construed to include athletics, debates, oratory, dramatics, student publications, student participation in government, and the Boosters Club.

#### COURSES NOT TAUGHT BY MEMBERS OF THE GRADUATE FACULTY WHICH MAY BE ACCEPTED FOR GRADUATE CREDIT

Certain theory and skill courses numbered 100 or above in special departments such as Industrial Arts and Men's Physical Education taught by instructors who are not regular members of the Graduate Faculty may be accepted for graduate credit with the consent of the student's major professor and the director of the Graduate School, provided the student is majoring or minoring in these fields.

#### AUDITORS

Graduate students carrying a full program with the consent of their major professor may audit one class without extra fee.

## SPECIAL STUDENTS

Special students must meet all graduate requirements of the courses for which they register. If they should decide later to become candidates for the advanced degree, they must meet all the requirements in the field of their chosen major.

Courses taken under the status of a special student may not be counted toward the Master's Degree unless they be approved by the director of the Graduate School on the recommendation of the student's major professor at the time of admission to candidacy.

## ADMISSION TO CANDIDACY

1. Not later than the tenth week of the student's first quarter, application for admission should be made to the registrar of the College. Formal blanks will be furnished by his office.

2. As soon as practicable, after grade reports for the first quarter's work are in the hands of the registrar and the student's application is filled out in satisfactory form, he will be considered for admission to candidacy by the director of the Graduate School.

3. Before a student can be admitted to candidacy, he must meet the following requirements:

- a. He must have demonstrated his ability to do a high grade of work in his field of specialization and must have shown promise of ability to do research
- b. The average of his first quarter's grades must be above the mean grade of "C"
- c. He must have given evidence to the director of the Training School of his ability to teach. This may have been done by either of the following ways:

- (1) Successful teaching experience; (2) Successful student teaching
- d. He must have established satisfactory classification test scores during the first quarter of his graduate work
  - e. He must have demonstrated during his first week in departmental Research 223 a proficiency in organizing and expressing thought in writing. If the student shows an inability to do this, he is required to take English 20 without credit during his first quarter of graduate work
  - f. He must have shown his personal fitness to become a candidate
  - g. The student's major professor must have filed with the registrar a statement endorsing the student for admission to candidacy and giving the subject of his thesis. Blanks for this purpose will be furnished by the registrar's office
4. A candidate may be required by his major professor or the director of the Graduate School to pass either a written or an oral preliminary examination before he is admitted to candidacy.

#### AD INTERIM WORK ON THE MASTER'S STUDY

Data for a thesis study may be collected in absentia without credit if approved in advance by the student's major professor. The thesis, however, must be written while the student is in residence.

#### TIME LIMIT FOR DEGREE

There are two main types of residence work—that carried on during the regular academic year (fall, winter, and spring quarters) and that carried on entirely in the summer quarter. Continuous systematic study so far as possible in either case is very essential. Hence the following regulations are made:

1. Students entering upon graduate work during any one of the regular academic quarters (fall, winter, or spring) must complete and have approved by the Graduate Council all graduate work including the thesis within two years from the time graduate work is begun, or additional requirements may be made by the Graduate Council
2. Students who restrict their graduate work entirely to the summer quarters must complete and have approved by the Graduate Council all requirements including the thesis within five summer quarters, or additional requirements may be made by the Graduate Council

### REQUIREMENTS FOR THE DEGREE

1. Beyond the four year undergraduate course, the student working for the degree, Master of Arts, must earn graduate credits amounting to forty-eight quarter hours. Three quarters of work in residence are required, but one quarter of approved graduate work may be transferred from another institution; or sixteen hours of approved graduate work may be done in extra-mural group classes conducted by instructors approved by the director of the Graduate School. In no case shall these provisions reduce the two full quarters of work (thirty-two hours) required to be done on the campus.

2. Research culminating in the writing of a thesis upon some selected problem shall be an integral part of the work required for the degree. A maximum of ten hours credit may be granted for this research.

3. Every student must register for Research 223 in his major field during his first full quarter of regular graduate work.

4. The student must have at least sixty-four quarter hours of under-graduate and graduate work in his major or closely related subjects.

5. He must have not less than thirty-two hours of undergraduate and graduate professional work in Education, Educational Psychology, and related fields, such as Educational Sociology, and Educational Biology. If the candidate majors in Education or Educational Psychology, sixty-four quarter hours will be required, but only work in Education or Educational Psychology will be accepted for such undergraduate and graduate work.

6. Before final approval for the degree, the student may be held for an examination by the student's major professor assisted by the director of the Graduate School.

7. The Master of Arts Degree shall be granted only by vote of the Graduate Council.

## THESIS

1. When the subject of the thesis study has been decided upon, the student's major professor shall notify the director of the Graduate School in writing, giving both the name of the student and the subject of the study. The director shall then appoint a member of the graduate faculty to serve with the major professor as a Thesis Advisory Committee. The advisory member shall have official relation to the major professor alone and not to the student.

The major professor shall, after consultation with the advisory professor, approve the whole plan of procedure as outlined in the agendum and they both shall constitute a reviewing committee for the thesis in its final form.

2. At least four weeks before the date upon which the degree is to be conferred two copies of the student's thesis shall be filed with the major professor for examination and criticism by the Thesis Advisory Committee.

3. At least two weeks before the date on which the degree is to be conferred, the complete thesis in final form must be approved, and two copies, properly signed, filed with the director of the Graduate School. One of these

must be an original copy. For the purpose of binding these copies, the student must deposit \$2.00 with the business agent of the College.

4. One week before graduation date, brief typewritten digests of the thesis must be filed, one with the student's major professor, one with the director of research, and two with the director of the Graduate School, the latter to be bound with the copies of the thesis prepared for the library.

5. The thesis must conform to definite standards. It must be typewritten on paper of good quality, size 8½x11 inches, and be properly bound. The arrangement of the title page is as follows:

## COLORADO STATE TEACHERS COLLEGE

Title of Thesis

A Thesis Submitted in Partial Fulfillment of the  
Requirements for the Degree of

Master of Arts

by

(Student's Name)

(Title of Major Department)

Date

6. The form of the approval sheet shall be as follows:

Approved by:

Major Professor .....

Department .....

Advisory Professor .....

Department .....

Director of the Graduate School

.....



## THE DEGREE OF DOCTOR OF PHILOSOPHY

A tentative plan has been developed for the granting of the Doctor's Degree in the departments of Education and Educational Psychology.

Since 1927, a few exceptionally well qualified administrators and teachers in the field have been admitted to candidacy for the Doctor's Degree. But the policy of the College is still in the formative stage. The above mentioned candidates have been encouraged by the departments of Education and Educational Psychology, as a result of their excellent qualifications for advanced graduate training.

The granting of the Doctor's Degree has been approved by the Board of Trustees of the College.

General standards for this degree have been tentatively established by the Graduate Council:

1. The candidate must complete the equivalent of two years of graduate work above the Master's Degree.

2. Great emphasis is placed upon practical research carried on by the candidate in the field. In fact, research of this nature is stressed as the significant feature of the Doctor's Degree in Colorado State Teachers College. All of the candidate's work is designed to give him specific help through courses and field studies in improving public education while he is in service. Instead of the conventional dissertation, three field studies are required. For each field study the candidate registers each quarter of a school year (fall, winter, and spring) in a research field course. For each study a maximum of twelve quarter hours of credit may be earned or a total of thirty-six hours for the three studies. An oral examination on each field study is held by the Graduate Council, and each study must be published in acceptable summary form before credit is granted for it. In no case will the degree be conferred in less than three years from the date of admission to work for the Doctor's Degree.

3. Residence work is required in the summer quarters while the candidate is free from his administrative or teach-

ing duties to pursue course work. During the summer quarters, the candidate completes his course work and secures help from his major professor on his field studies.

4. The Graduate Council may approve residence graduate work in other graduate schools, particularly where special course work may be pursued.

5. The candidacy of each student thus far has been treated as an individual case. Only superior students who have successful records as administrators or teachers will be considered by the council for admission to candidacy for the Doctor's Degree. For students without previous graduate work in Colorado State Teachers College, the council will require at least one quarter of graduate work before such students will be considered for candidacy. This requirement is necessary in order to secure personal evaluation of the qualifications of the student for admission to candidacy.

6. No candidate will be considered who is not at the time of his admission actually holding an administrative or teaching position in the field.

### LIFE CERTIFICATE

All graduate degrees entitle the holder to a Life Certificate in the State of Colorado. These certificates are accepted, also, without question by practically all other state departments.

### EXTENSION WORK

No graduate credit is given for correspondence work. With the approval of the director of the Graduate School, a maximum of sixteen quarter hours of graduate credit may be earned by completing graduate courses offered in extension classes. In order to register for graduate credit in extra-mural classes, the following procedure should be observed:

1. The student shall file with the registrar proof of having received a Bachelor's Degree from a reputable institution, together with a transcript of his work in such institution and the preparatory credits upon which he was originally admitted.

2. The director of the Graduate School may not approve an extra-mural course for graduate credit unless the instructor holds a Master's or Doctor's Degree with minimum specialized training as follows:

- a. Thirty-two quarter hours in Education and Educational Psychology
- b. Twenty quarter hours in the special field in which he wishes to teach

3. Not more than six quarter hours of credit may be earned by study in extension classes until the student has been admitted to candidacy for the Master's Degree. Graduate credit earned before admission to candidacy will be recorded but not validated until admission to candidacy has been completed. On the basis of his residence record, credit for extra-mural work will be subject to revision.

4. A student may not be admitted to candidacy until after sixteen quarter hours have been completed in residence study.

5. Extra-mural students expecting to become candidates for the Master's Degree should plan their program for their entire Master's Degree work with their major professor before enrolling for the second extra-mural course.

6. A graduate student enrolled in an extension course numbered below 200 must prepare, under the direction of the instructor, a special paper dealing with some phase of the course. This paper must be of such a standard that for each quarter hour of credit a minimum of four clock hours will be required in preparation. For illustration, a course carrying three quarter hours of credit will require a special paper which will occupy the student, in the judg-

ment of the instructor, a minimum of twelve clock hours in preparation period. At the conclusion of the course, the instructor must send his paper to the director of the Extension Department for filing in order that it may be available for inspection by the student's major professor.

7. The Master's Degree will not be conferred upon students who meet their residence requirements by attending summer sessions only, until twelve months after the date upon which the student was admitted to candidacy for the Master of Arts Degree.

### THE DEPARTMENT OF TRAINING SCHOOLS

The department of Training Schools comprises a complete elementary and secondary school system from the pre-school and kindergarten to the twelfth year inclusive. The building is equipped with the most modern furniture and apparatus for teaching. The laboratories, auditorium, gymnasium, and library represent the best to be had.

Graduate students especially interested in the supervision of student teaching will find excellent opportunities and facilities for systematic courses in training school supervision under the guidance of expert training teachers. For this work the Training Schools provide an excellent teaching, testing, and research laboratory.

There is a real demand for professionally equipped training school supervisors who have a Master's Degree. To help meet this demand, Colorado State Teachers College is offering a year of graduate work in training school supervision.

Graduate students interested in rural education will find excellent opportunities for research work in the extra-mural training centers.

### LIBRARY

The library contains sixty-seven thousand volumes, a large illustrative picture collection, and several thousand

pamphlets. The building has two floors, both of which are used for library purposes. The main floor is a reading and general reference room, where are shelved many of the periodical and reference books. On this floor, also, are kept reserved books, which are for special use within the building. The basement floor contains the general book collection stacks, government publications, and unbound volumes of magazines. The volumes in the library have been selected with special reference to the needs of students in education, for teachers, and for educational research work.

### SCHOOL YEAR

The school year is divided into four quarters, designated as the fall, winter, spring, and summer quarters. The work of the summer quarter is on a par with that done during the regular year in respect to both quantity and quality. Because of the large enrollment very few members of the resident teaching staff take their leaves of absence during the summer quarter. Moreover, the regular faculty is always supplemented by a large number of visiting instructors.

### FEES

#### MATRICULATION—

\$5.00 is paid by all students entering the college for the first time. It is paid but once by the student and cannot be refunded.

#### QUARTERLY FEES—FALL, WINTER, AND SPRING QUARTERS

Incidental .....	\$ 8.00
Library .....	2.00
Physical Educa- tion and Health.....	2.00
<b>Total .....</b>	<b>\$12.00</b>

#### Student Association—\$5.00—

Must be paid by all students taking more than four hours of work.

**Non-residence Fee—\$5.00—**

Paid quarterly by students who are not residents of Colorado. To establish residence in Colorado, one must live in the State for one year with the intention of making it his permanent residence.

**Laboratory Fee—**

Certain courses require small laboratory fees.

**Part Time Fees—**

Students carrying four hours or under will be charged \$6.00 plus any laboratory fee that may be attached to the course. Five hours or above carries all the regular fees.

**QUARTERLY FEES—SUMMER QUARTER****Incidental—**

Full Quarter.....	\$32.00
Half Quarter....	16.00
Library Fee .....	2.00

**Non-Residence Fee—**

Full Quarter.....	\$5.00
Half Quarter.....	2.50

Laboratory fees to be added to above

**FEES FOR LESS THAN A FULL PROGRAM**

Laboratory, non-residence, and library fees as listed above to be added to the following:

1 or 2	Quarter Hours	\$5.00
3	Quarter Hours	\$7.50
4	Quarter Hours	\$10.00
5, 6, 7, 8	Quarter Hours	\$16.00
9	Quarter Hours	\$16.00
	(If taken during one-half)	
9	Quarter Hours	\$20.00
	(If taken during whole quarter)	
10 or 11	Quarter Hours	\$25.00

12 hours or above, considered a full program and carries the regular fees.

## LIVING EXPENSES

Living expenses for graduate students are as reasonable as is compatible with health, congenial surroundings, and comfort. Single rooms rent for from \$36.00 to \$54.00 a quarter. Rooms that accommodate two people range in price from \$27.00 to \$54.00 a quarter per person.

Board ranges in price from \$5.00 to \$7.00 a week in regular boarding houses. Many students eat at tea rooms and restaurants adjacent to the campus where good board may be obtained at the same or slightly higher prices.

Married students who wish small apartments or light housekeeping accommodations can usually secure them either in apartment houses or private homes at popular prices.

Women students who wish more specific information regarding these matters should write the dean of women; men students, the dean of men.

## FELLOWSHIPS AND SCHOLARSHIPS

1. TEACHING FELLOWSHIPS—Under this provision ten fellowships are open. Each carries a stipend of \$450.00 paid in nine equal installments. Fellows are required to teach at least six hours per week and may not register for more than twelve hours of courses per quarter. Application for these fellowships should be made to the vice-president of the College and should be accompanied by such credentials and references as the student may wish to submit.

2. BOARD OF TRUSTEES SCHOLARSHIP—Two of these scholarships are open each year and are known as the "State Superintendent of Public Instruction Scholarships." Each covers the *regular college fee* for one year of graduate work. Application for these should also be made to the vice-president of the College.

## LOAN FUNDS

The college administers numerous loan funds which are open to graduate students. At present, the total aggregate of these is over \$20,000. They are designed to assist worthy, promising students who for various unexpected causes find themselves without sufficient funds to continue their work.

Applications for loans are made to the treasurer of the College, who investigates the record of each applicant carefully. To obtain a loan, the record of each student must show that he is worthy and that he will be in a position to repay the loan within a reasonable time.

## HONORARY FRATERNITIES

### PHI DELTA KAPPA

This is a national, honorary, professional fraternity open to men from all departments who plan to pursue any phase of education. The chapter at Colorado State Teachers College was the thirty-seventh to be established and holds the first charter granted to a state teachers college. Membership is by invitation to those who possess the requisite qualifications.

### KAPPA DELTA PI

Kappa Delta Pi is a national, honorary, educational fraternity open by invitation to both men and women. The eighth chapter to be organized is located at Greeley and it, also, holds the first charter granted to a state teachers college.

### PI KAPPA DELTA

Pi Kappa Delta is a national debating fraternity open by invitation to all students who have taken part in intercollegiate debates, oratorical contests, or who may be pursuing that type of work.



## OTHER FRATERNITIES

In addition to these more general honorary fraternities, several departments have chapters of national fraternities in their respective fields. These are open by invitation to both graduate and undergraduate students.

## HEALTH SERVICE

A thorough health examination is required of each student as soon as practical after registration and thereafter once each year. Matriculation is not completed until this examination has been made and recorded, and students are not graduated unless the examinations are attended to regularly and promptly. The medical advisers keep regular office hours for free consultation concerning personal health problems. These examinations and conferences have for their purpose the prevention of illness and the promotion of the vigorous health of students.

## MUSEUM OF NATURAL HISTORY

The Museum of Natural History has been built up so far as possible as an aid in the training of teachers of science. It includes more than one thousand birds. Many of these are Colorado species. One collection of humming birds of more than 500 specimens from the Tropics, shows the highest degree of variation and adaptation that may occur among a single family of birds.

Specimens of many mammals, both beneficial and harmful, add to the interest and usefulness of the museum as an aid in the teaching of science.

Habitat studies are being added and should prove to be an attractive feature.

Collections of insects, including butterflies from the tropical climates, furnish concrete illustrations of the great variety and uniqueness of biological adaptations.

The museum presents an opportunity for teachers to become familiar with the fauna of the region. This cannot

be done out of doors without miles of travel and hours, sometimes days, lying in concealment in order to see even a single species.

### STENOGRAPHIC BUREAU

The College maintains a Stenographic Bureau for the convenience of graduate students. This bureau furnishes the supplies and prepares typewritten copies of term papers, term outlines, and theses. The charge for such service is very reasonable, consisting usually of the cost of the supplies and the stenographer's time. The bureau, however, does not obligate itself to take care of all the theses which may be turned in near the close of the quarter.

### THE COLLEGE PLACEMENT BUREAU

The College maintains a Placement Bureau to assist students in finding the right teaching position. During the college year, October 1, 1928, to September 30, 1929, there were 549 students placed in thirty-six states, Hawaii, and the Philippine Islands. These placements were distributed as follows: college teachers, 24; school superintendents, 13; high school principals, 5; elementary school principals, 14; junior high school classroom teachers, 47; senior high school classroom teachers, 145; elementary classroom teachers, 301. The average salary for all placements is \$1280.75. The highest salary is \$5200. The cost to the student for Placement Bureau Service is an annual registration fee of \$3.00 and the actual cost of telephone calls and telegrams.

### STUDENTS' EMPLOYMENT BUREAU

As one of its special activities, the Extension Department of the College conducts a Student Employment Bureau which is organized for the purpose of assisting worthy students to obtain part time employment to help defray a

part of their college expenses. Students who plan to attend the summer session and who wish to secure part time employment should file their names at the earliest possible moment with the Student Employment Bureau, Extension Department, Colorado State Teachers College.

## RECREATIONAL AND SCENIC TOURS

While the object of graduate students is study rather than pleasure, yet no student can work all the time. The more studious he is and the harder he applies himself, the greater the need of periodic rest and relaxation.

In order to accommodate students who need diversion or who wish to combine recreation with study, the college will conduct special tours on several week-ends during the summer session. These trips require from one to three days depending upon the points visited and cover from one hundred to three hundred miles. They are run on a non-profit basis insofar as the College is concerned and offer the student an excellent opportunity to visit America's most beautiful playground at an exceptionally low cost.

Among the many interesting places visited by the large sight-seeing cars are Grand Lake, Moffat Tunnel, Estes Park, Lookout Mountain and Buffalo Bill's Grave, Devil's Gulch, the famous Pawnee Buttes fossil beds, Pike's Peak, and the Colorado Springs region, the Garden of the Gods, Cheyenne Frontier Days celebration, and the Denver mountain parks. Special fishing, hunting, and mountain climbing excursions are easily arranged.

## THE COURSE OF STUDY

## ART

100. SUPERVISION OF ART EDUCATION—Fall and summer quarters. Two hours.
101. FIGURE DRAWING—Winter and summer quarters. Four hours.
103. ART STRUCTURE II—Fall and summer quarters. Four hours.
- 103a. ART STRUCTURE—Winter quarter. On request. Four hours.
104. DESIGN—Spring quarter. Four hours.
- 104a. TEXTILE DESIGN AND PROCESSES—Fall and summer quarters. Two hours.
105. WATER COLOR PAINTING—Fall, spring and summer quarters. Four hours.
106. TEACHING ART APPRECIATION—Fall and summer quarters. Two hours.
107. CONSTRUCTIVE DESIGN—Winter, spring and summer quarters. Four hours.
108. POTTERY—Fall quarter. Two hours.
109. HISTORY OF ART—Fall and summer quarters. Four hours.
112. COLOR THEORY AND COMPOSITION—Winter and summer quarters. Four hours.
115. FREEHAND DRAWING II—Spring quarter. Four hours.
116. FREEHAND DRAWING III—Fall, winter and summer quarters. Four hours.
117. LETTERING II—Fall, spring and summer quarters. Four hours.
118. STAGECRAFT AND PAGEANTRY—Spring and summer quarters. Two hours.
119. ADVANCED POSTER COMPOSITION—Fall and summer quarters. Two hours.
120. OIL PAINTING—Every quarter. Four hours.
121. MODELING—Spring and summer quarters. On request. Two hours.
122. TESTS IN ART EDUCATION—Spring quarter. Two hours. Not given 1930.
212. COLOR THEORY AND COMPOSITION—Winter quarter. Four hours.
220. ADVANCED OIL PAINTING—Given on request.
223. RESEARCH IN ART EDUCATION—Every quarter. Four hours.
224. RESEARCH IN ART EDUCATION—Every quarter. Four hours.
225. RESEARCH IN ART EDUCATION—Every quarter. Two hours.

## BIOLOGY

100. EVOLUTION—Fall and summer quarter. Four hours.
101. GENETICS AND EUGENICS—Winter and summer quarters. Four hours.
201. GENETICS AND EUGENICS—Winter and summer quarters. Four hours.
103. BIOLOGY SEMINAR—Every quarter. Two hours.
102. TEACHING OF BIOLOGY—Spring quarter. Four hours.
203. BIOLOGY SEMINAR—Every quarter. Two hours.
223. BIOLOGICAL RESEARCH—Every quarter. Four hours.
224. BIOLOGICAL RESEARCH—Every quarter. Four hours.
225. BIOLOGICAL RESEARCH—Every quarter. Two hours.

## BACTERIOLOGY

100. GENERAL BACTERIOLOGY—Winter and summer quarters. Four hours.

## BOTANY

101. SYSTEMATIC BOTANY—Summer quarter. Four hours.
102. BOTANICAL TECHNIC AND HISTOLOGY—Fall quarter. Four hours.
103. PLANT PHYSIOLOGY—Winter quarter. Four hours.
201. TAXONOMY—Summer quarter. Four hours.
223. BOTANICAL RESEARCH—Every quarter. Four hours.
224. BOTANICAL RESEARCH—Every quarter. Four hours.
225. BOTANICAL RESEARCH—Every quarter. Two hours.

## ZOOLOGY

101. INVERTEBRATE ZOOLOGY—Spring quarter. Four hours.
102. VERTEBRATE ZOOLOGY—Spring quarter. (Not given 1929-30.) Four hours.
103. ZOOLOGICAL TECHNIC AND ANIMAL HISTOLOGY—Winter quarter. Four hours.
107. ELEMENTARY ENTOMOLOGY—Fall quarter. Four hours.
108. EMBRYOLOGY—Summer quarter 1930. Four hours.
201. MORPHOLOGY OF THE VERTEBRATES—Winter quarter. Four hours.
223. ZOOLOGICAL RESEARCH—Every quarter. Four hours.
224. ZOOLOGICAL RESEARCH—Every quarter. Four hours.
225. ZOOLOGICAL RESEARCH—Every quarter. Two hours.

## CHEMISTRY

216. AGRICULTURAL CHEMISTRY—Fall quarter. Four hours.
217. THE TEACHING OF CHEMISTRY—Fall quarter. Four hours.
212. FOOD ANALYSIS—Every quarter. Two or four hours.

215. INDUSTRIAL CHEMISTRY—Every quarter. Two or four hours.
221. ADVANCED INORGANIC CHEMISTRY—Winter quarter. Two or four hours.
222. ADVANCED INORGANIC CHEMISTRY—Spring quarter. Two or four hours.
223. RESEARCH IN CHEMISTRY—Every quarter. Four hours.
224. RESEARCH IN THE TEACHING OF CHEMISTRY—Four hours.
225. RESEARCH IN THE TEACHING OF CHEMISTRY—Two hours.

## COMMERCIAL EDUCATION

101. APPLIED ECONOMICS—Winter quarter. Four hours.
106. SECRETARIAL SCIENCE I—Spring and summer quarters. Four hours.
144. COMMERCIAL LAW II—Winter quarter (Not given 1930-1931.) Four hours.
155. THE ECONOMICS OF RETAILING—Spring quarter. (Not given 1930-1931.) Four hours.
157. METHODS OF TEACHING BOOKKEEPING—Spring and summer quarters. Four hours.
160. BANKING PRACTICE—Fall quarter. Four hours.
161. COST ACCOUNTING—Winter quarter. Four hours.
201. ADVANCED ACCOUNTING I—Fall quarter. Four hours.
202. ADVANCED ACCOUNTING II—Winter quarter. Four hours.
203. ADVANCED ACCOUNTING III—Spring quarter. Four hours.
204. AUDITING—Spring quarter. Four hours.
212. PROBLEMS IN COMMERCIAL EDUCATION—Fall quarter. Four hours.
213. SUPERVISION AND ADMINISTRATION OF COMMERCIAL EDUCATION—Winter and summer quarters. Four hours.
223. RESEARCH IN COMMERCIAL EDUCATION—Every quarter. (Taken in the first quarter of graduate work.) Four hours.
224. RESEARCH IN COMMERCIAL EDUCATION—Every quarter. Four hours.
225. RESEARCH IN COMMERCIAL EDUCATION—Every quarter. Two hours.

## EDUCATION

- 102a. STUDENT SUPERVISION IN ELEMENTARY TRAINING SCHOOL—Every quarter. Four hours.
- 103a. STUDENT SUPERVISION IN THE SECONDARY TRAINING SCHOOL—Every quarter. Four hours.

108. EDUCATIONAL SUPERVISION—Spring and summer quarters. Four hours.

110. EXTRA-CURRICULAR ACTIVITIES AND EDUCATIONAL GUIDANCE—Fall, winter, and summer quarters. Four hours.

110c. CITIZENSHIP EDUCATION IN THE SCHOOLS—Fall quarter. Two hours.

111. HISTORY AND PHILOSOPHY OF EDUCATION—Fall, spring, and summer quarters. Four hours.

114. PRIMARY SUPERVISION—Summer quarter. Four hours.

115. ORGANIZATION AND ADMINISTRATION OF THE ELEMENTARY SCHOOL—Summer quarter. Four hours.

117. PROBLEMS IN SCHOOL DISCIPLINE—Summer quarter. Two hours.

118. PROBLEMS IN CHARACTER AND MORAL EDUCATION—Winter and summer quarters. Two hours.

120. ELEMENTARY RURAL SCHOOL EDUCATION—Fall and summer quarters. Four hours.

125. MODERN TRENDS IN RURAL SCHOOL EDUCATION—Spring and summer quarters. Four hours.

127. SPECIAL RURAL SCHOOL METHODS—Fall and summer quarters. Four hours.

134. HISTORY OF EDUCATION IN THE UNITED STATES—Winter and summer quarters. Four hours.

150. FOUNDATIONS OF METHOD—Fall and summer quarters. Four hours.

151. THE PRE-SCHOOL—Winter and summer quarters. Four hours.

155. RECENT INVESTIGATIONS IN KINDERGARTEN EDUCATION—Summer quarter. Four hours.

156. CREATIVE EDUCATION—Fall and summer quarters. Four hours.

190. THE ADMINISTRATION OF NORMAL SCHOOLS AND TEACHERS COLLEGES—Winter and summer quarters. Two hours.

192. TRAINING SCHOOL PROBLEMS IN THE PROFESSIONAL EDUCATION OF TEACHERS—Winter and summer quarters. Two hours.

208. PROBLEMS OF THE SCHOOL CURRICULUM—Fall and summer quarters. Four hours.

(A student may earn up to 12 hours in the curriculum field by taking Ed. 208, 209, and 210.)

209. SEMINAR IN ADVANCED CURRICULUM CONSTRUCTION—Winter quarter. Four hours.

210. SEMINAR IN EDUCATIONAL VALUES—Spring quarter. Four hours.

211. CONCEPTIONS OF MIND IN EDUCATIONAL THEORY—Winter quarter. Four hours.

213. PROBLEMS OF JUNIOR HIGH SCHOOL ADMINISTRATION—Summer quarter. Two or four hours.

(Given successive summers as Ed. 213, 214, and 215. Students may earn up to 12 hours in this field.)

214. PROBLEMS OF JUNIOR HIGH SCHOOL SUPERVISION—Summer quarter. Two or four hours.
215. PROBLEMS OF JUNIOR HIGH SCHOOL CURRICULUM—Spring and summer quarter. Two or four hours.
216. PROBLEMS OF HIGH SCHOOL ADMINISTRATION—Summer quarter. Four hours.  
(Given successive summers as Ed. 216, 217, and 218. Students may earn up to twelve hours.)
217. PROBLEMS OF HIGH SCHOOL SUPERVISION—Summer quarter. Four hours.
218. PROBLEMS OF HIGH SCHOOL CURRICULUM—Summer quarter. Four hours.
219. PROBLEMS OF STUDY AND DISCIPLINE—Spring and summer quarters. Four hours.
223. RESEARCH IN EDUCATION—Every quarter. Four hours.  
(To be taken in first quarter of graduate work.)
224. RESEARCH IN EDUCATION—Every quarter. Four hours.
225. RESEARCH IN EDUCATION—Every quarter. Two hours.
230. A HISTORY OF PHILOSOPHY—Winter and summer quarters. Four hours.
242. PROBLEMS OF SCHOOL ADMINISTRATION (*First Course*)—Fall and summer quarters. Four hours.  
(Administration majors may earn up to 12 hours in this field by taking Ed. 242, 243, and 244.)
243. PROBLEMS OF SCHOOL ADMINISTRATION (*Second Course*)—Winter and summer quarters. Four hours.
244. PROBLEMS OF SCHOOL ADMINISTRATION (*Third Course*)—Spring and summer quarters. Four hours.
258. PROBLEMS OF ELEMENTARY EDUCATION (*First Course*)—Spelling and Reading—Fall and summer quarters. Four hours.  
(A student may earn up to 12 hours in Elementary Education by taking Ed. 258, 259, and 260.)
259. PROBLEMS OF ELEMENTARY EDUCATION (*Second Course*)—Content Subjects—Winter and summer quarters. Four hours.
260. PROBLEMS OF ELEMENTARY EDUCATION (*Third Course*)—Handwriting, Composition, Arithmetic—Spring and summer quarters. Four hours.

## EDUCATIONAL PSYCHOLOGY

103. PSYCHOLOGY OF ADOLESCENCE—Third or fourth year. Spring quarter. Four hours.
104. PSYCHOLOGY OF ELEMENTARY SCHOOL SUBJECTS—Spring and summer quarters. Four hours.
105. THE PSYCHOLOGY OF SENIOR HIGH SCHOOL SUBJECTS—Third Year. Winter and summer quarters. Four hours.



106. CLINICAL PSYCHOLOGY—Winter quarter. Four hours.
107. MENTAL TESTS AND MEASUREMENTS—Winter and summer quarters. Four hours.
- 108a. EDUCATIONAL MEASUREMENT IN THE ELEMENTARY GRADES AND JUNIOR HIGH SCHOOL—Fall and summer quarters. Four hours.
- 108b. EDUCATIONAL MEASUREMENT IN THE SENIOR HIGH SCHOOL—Fourth year. Spring and summer quarters. Four hours.
- 108c. TEACHERS' CLASSROOM TESTS—Spring quarter. Four hours.
109. CLINICAL PRACTICE—On request. Two or four hours.
110. GENERAL PSYCHOLOGY—Fall quarter. Four hours.
111. THE PSYCHOLOGY AND PATHOLOGY OF SPEECH—Fall quarter. Four hours.
112. PSYCHOLOGY OF MUSIC—Winter quarter. Four hours.
113. PSYCHOLOGY OF INDUSTRIAL ARTS, HOME ECONOMICS, AND FINE ARTS—Third year. (On request.) Four hours.
114. PSYCHOLOGY OF DELINQUENCY—Fall quarter. Four hours.
115. ABNORMAL PSYCHOLOGY AND MENTAL HYGIENE—Spring quarter. Four hours.
116. PSYCHOLOGY OF COMMERCIAL SUBJECTS—Winter and summer quarters. Four hours.
117. ELEMENTARY STATISTICAL METHODS—Fall and summer quarters. Four hours.
213. CONFERENCE, SEMINAR, AND LABORATORY COURSES—Any quarter.
214. ADVANCED EDUCATIONAL PSYCHOLOGY—Spring quarter. (Not given 1929-30.) Four hours.
217. INTERMEDIATE STATISTICAL METHODS—Four hours. Given on demand.
222. EXPERIMENTAL TECHNIC AND ITS APPLICATION—Fall and summer quarters. Two or four hours.
223. RESEARCH IN EDUCATIONAL PSYCHOLOGY—Every quarter. Four hours.
224. RESEARCH IN EDUCATIONAL PSYCHOLOGY—Every quarter. Four hours.
225. RESEARCH IN EDUCATIONAL PSYCHOLOGY—Every quarter. Two hours.

## ENGLISH

105. ORAL ENGLISH IN THE HIGH SCHOOL—Spring and summer quarters. Two hours.
106. THE TEACHING OF ENGLISH IN THE HIGH SCHOOL—Winter and summer quarters. Four hours.

123. PLANT GEOGRAPHY—Fall quarter. Four hours.
130. PHYSIOGRAPHY—Fall quarter. Four hours.
131. GEOLOGY—Spring quarter. Four hours.
150. GEOGRAPHY OF COLORADO—Fall quarter. Four hours.
162. TROPICAL COUNTRIES—Winter quarter. Four hours.
170. POLAR LANDS—Spring quarter. Four hours.
190. RACIAL GEOGRAPHY OF THE UNITED STATES—Spring quarter. Four hours.
192. POLITICAL GEOGRAPHY—Fall quarter. Four hours.
194. GEOGRAPHIC INFLUENCES IN AMERICAN HISTORY—Fall quarter. Four hours.
199. CONSERVATIONS OF NATIONAL RESOURCES—Winter quarter. Four hours.
- 210, 211, 212. SPECIAL PROBLEMS IN GEOGRAPHY—Every quarter. Four hours.
223. RESEARCH IN GEOGRAPHY—Every quarter. Four hours.
224. RESEARCH IN GEOGRAPHY—Every quarter. Four hours.
225. RESEARCH IN GEOGRAPHY—Every quarter. Two hours.

## HISTORY

101. COMMERCIAL AND FINANCIAL HISTORY OF THE UNITED STATES—(Not given 1930-31.) Four hours.
102. ANCIENT SOCIAL HISTORY, GREECE AND THE ORIENT—Fall quarter. Four hours.
103. THE LITERATURE OF AMERICAN HISTORY—Summer quarter. Two hours.
107. THE BRITISH EMPIRE—(Not given 1930-31.) Four hours.
117. THE TEACHING OF HISTORY AND CIVICS IN JUNIOR AND SENIOR HIGH SCHOOLS—Fall quarter. Four hours.
203. THE REFORMATION—Summer quarter. Four hours.
205. MEDIEVAL LIFE AND INSTITUTIONS—Summer quarter. Four hours.
206. THE FRENCH REVOLUTION—Spring quarter. Four hours.
208. THE AMERICAN REVOLUTION—Fall and summer quarters. Four hours.
209. SLAVERY, SECESSION, CIVIL WAR, AND RECONSTRUCTION, 1850-1870—Winter quarter. Four hours.
216. LATIN-AMERICAN HISTORY—Spring and summer quarters. Four hours.
221. HISTORY OF THE FAR EAST—Winter quarter. Four hours.

223. RESEARCH IN HISTORY—Every quarter. Four hours.
224. RESEARCH IN HISTORY—Every quarter. Four hours.
225. RESEARCH IN HISTORY—A continuation of 224. Two hours.
300. SEMINAR IN THE TEACHING OF HISTORY—Offered on Request. Two to four hours.

#### POLITICAL SCIENCE

101. HISTORY OF THE FOREIGN POLICIES OF THE UNITED STATES—Winter and summer quarter. Four hours.
102. INTERNATIONAL RELATIONS—Summer and spring quarters. Four hours.
203. POLITICAL SCIENCE THEORY—Summer quarter. (Not given 1931). Four hours.

#### HOME ECONOMICS

101. ADVANCED TEXTILES—Winter and summer quarters. Four hours.
102. CHILDREN'S CLOTHES AND APPLIED DESIGN—Fall and summer quarters. Four hours.
103. COSTUME DESIGN—Fall and summer quarters. Four hours. Fee, 50 cents.
104. HOUSING AND HOUSE SANITATION—Winter and summer quarters. Two or four hours.
106. HOME CARE OF THE SICK—Fall and summer quarters. Four hours. Fee, \$1.00.
107. HOME DECORATION—Spring and summer quarters. Four hours.
121. EXPERIMENTAL COOKERY—Fall quarter. Four hours. Students pay expense of materials used.
123. DEMONSTRATION COOKERY—Winter quarter. Four hours. Fee, \$3.50.  
Prerequisite: A year's course in college cookery.
124. DIETETICS—Spring quarter. Occasionally in summer. Four hours. Fee, \$3.50.
125. CHILD CARE AND CHILD WELFARE—Spring and summer quarters. Four hours.
126. THE SCHOOL LUNCH AND CATERING—Fall and summer quarters. Four hours. Fee, \$3.50.
132. THE HOME—Winter quarter. Four hours.
140. METHODS OF TEACHING HIGH SCHOOL HOME ECONOMICS—Winter and summer quarters. Four hours.
201. TEXTILES AND CLOTHING ECONOMICS I—Fall and summer quarters. Four hours.

202. TEXTILE AND CLOTHING ECONOMICS II—Winter quarter and summer quarter (1931). Four hours.

A continuation of I.

203. TEXTILE AND CLOTHING ECONOMICS III—Spring quarter Four hours.

A continuation of II.

204. HOUSING AND PROBLEMS RELATING TO HOUSING—Summer quarter. Four hours.

By arrangement this course may be had other quarters.

208. NUTRITION WORK WITH CHILDREN—Summer quarter. (Not given 1930.) Two hours.

209. EXPERIMENTAL STUDY IN NUTRITION—Summer quarters. Two or four hours.

210. EXPERIMENTAL COOKERY—Spring and summer quarters. Four hours.

Cost of materials used paid by research student.

223. RESEARCH IN HOME ECONOMICS—Every quarter. Four hours.

224. RESEARCH IN HOME ECONOMICS—Every quarter. Four hours.

225. RESEARCH IN HOME ECONOMICS—Every quarter. Two hours.

## INDUSTRIAL EDUCATION

104. DEVELOPMENT OF VOCATIONAL EDUCATION—Not given in 1930-31. Fall quarter 1931-32. Two hours.

105. PRINCIPLES OF ARCHITECTURAL DRAWING—Fall quarter. Four hours.

108. TEACHING VOCATIONAL SUBJECTS—Winter quarter 1931-32. Two hours.

117. MACHINE DESIGN I—Winter quarter. Four hours.

118. MACHINE DESIGN II—Spring quarter. Four hours.

119. APPLIED ORNAMENT—Spring quarter 1931-32. Two hours.

126. HISTORY OF ARCHITECTURE—Spring quarter. Two hours.

133. ADVANCED PRINTING I—Fall and spring quarters. Four hours.

133. ADVANCED PRINTING II—Winter quarter. Four hours.

134. PRACTICAL NEWSPAPER WORK IN PRINTING—On request. Four hours.

135. COST ACCOUNTING IN PRINTING—On request. Two hours.

136. SHOP MANAGEMENT IN PRINTING—On request. Two hours.

137. PRINT SHOP PROBLEMS—On request. Four hours.

138. SUPERVISORY PRINTING—On request. Four hours.

201. SEMINAR IN INDUSTRIAL EDUCATION—On request. Summer quarter. Four hours.

204. DEVELOPMENT OF VOCATIONAL EDUCATION—Spring quarter. Two hours.

- 208. TEACHING VOCATIONAL SUBJECTS—Spring quarter. Two hours.
- 223. RESEARCH IN INDUSTRIAL EDUCATION—Every quarter. Four hours.
- 224. RESEARCH IN INDUSTRIAL EDUCATION—Every quarter. Four hours.
- 225. RESEARCH IN INDUSTRIAL EDUCATION—Every quarter. Two hours.

## MATHEMATICS

- 101. DIFFERENTIAL CALCULUS—Winter and summer quarters. Four hours.
- 102. INTEGRAL CALCULUS—Spring and summer quarters. Four hours.
- 103. THEORY OF EQUATIONS—Spring quarter. Four hours.
- 104. THE TEACHING OF PRIMARY ARITHMETIC—Winter, spring and summer quarters. Two hours.
- 105. THE TEACHING OF INTERMEDIATE ARITHMETIC—Winter, spring and summer quarters. Two hours.
- 106. DESCRIPTIVE ASTRONOMY—Winter and summer quarters. Four hours.
- 107. TEACHING JUNIOR HIGH SCHOOL MATHEMATICS—Fall and summer quarters. Four hours.
- 108. TEACHING JUNIOR HIGH SCHOOL MATHEMATICS—Winter quarter. Four hours.
- 109. TEACHING ALGEBRA—Fall and summer quarters. Four hours.
- 110. GEOMETRY FOR TEACHERS—Winter and summer quarters. Four hours.
- 200. ADVANCED CALCULUS—Winter quarter. Four hours.
- 201. DIFFERENTIAL EQUATIONS—Fall and summer quarters. Four hours.
- 223. RESEARCH IN MATHEMATICS—Every quarter. Four hours.
- 224. RESEARCH IN MATHEMATICS—Four hours.
- 225. RESEARCH IN MATHEMATICS—Two hours.

## PHYSICAL EDUCATION FOR WOMEN

- 100. JUNIOR PRACTICE—Fall quarter. Two hours.
- 102. JUNIOR PRACTICE—Spring quarter. Two years.
- 103. SENIOR PRACTICE—Fall quarter. Two hours.
- 104. SENIOR PRACTICE—Winter quarter. Two hours.
- 110. ADVANCED NATURAL DANCING—Spring quarter. Two hours.  
(Not given 1930-31.)
- 120. APPLIED ANATOMY AND PHYSIOLOGY—Fall quarter. Four hours.

121. APPLIED ANATOMY AND PHYSIOLOGY—Winter quarter. Four hours.
122. KINESIOLOGY—Spring quarter. Two hours.
123. PHYSICAL EXAMINATION AND NORMAL DIAGNOSES—Spring quarter. Two hours.  
Not given in 1930-31.
129. COACHING METHODS—Fall quarter. Two hours.
130. COACHING METHODS—Spring quarter. Two hours.
131. PAGEANTRY—Spring quarter. Two hours.
132. THEORY OF INDIVIDUAL GYMNASTICS—Spring quarter. Four hours.
133. INDIVIDUAL GYMNASTICS APPLIED—Every quarter. Two hours.
135. HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION—Spring quarter. Four hours.
136. PLAYGROUND SUPERVISION—Every quarter. Two hours.
137. MATERIALS AND METHODS IN PHYSICAL EDUCATION—Fall quarter. Four hours.
223. RESEARCH IN PHYSICAL EDUCATION—Every quarter. Four hours.
224. RESEARCH IN PHYSICAL EDUCATION—Every quarter. Four hours.
225. RESEARCH IN PHYSICAL EDUCATION—Every quarter. Two hours.

## PHYSICS

103. THE PRINCIPLES OF RADIO RECEPTION—Fall quarter. Four hours.
104. THE PRINCIPLES OF RADIO TRANSMISSION—Winter quarter. Four hours.
105. HIGH FREQUENCY PHENOMENA—Fall quarter. Two hours.  
Not given in 1930-31.
107. MODERN PHYSICS—Fall quarter. Two hours.
108. METHODS OF TEACHING HIGH SCHOOL PHYSICS—Winter quarter. Four hours.  
Not given in 1930-31.
111. PHYSICS OF THE AUTOMOBILE—Spring quarter. Four hours.
114. PHYSICS OF MUSICAL INSTRUMENTS—Winter quarter. Four hours.
115. LIGHT AND COLOR—Fall quarter. Four hours.
118. PHOTOGRAPHY—Winter quarter. Four hours. Fee \$3.00.
121. DIRECT AND ALTERNATING CURRENTS—Fall quarter. Four hours.
201. PHYSICS SEMINAR—Every quarter. Two hours.

- 223. RESEARCH IN PHYSICS—Every quarter. Four hours.
- 224. RESEARCH IN PHYSICS—Every quarter. Two hours. Fee, \$3.00.
- 225. RESEARCH IN PHYSICS—Two hours. Fee, \$3.00.

## SOCIOLOGY

- 100. EARLY CIVILIZATION IN EUROPE AND AMERICA—Spring quarter. Four hours.
- 105. GENERAL SOCIOLOGY—Every quarter. Four hours.
- 110. PROBLEMS OF TEACHING SOCIOLOGY—Spring quarter. Four hours.
- 115. COMPARATIVE RELIGION—Winter quarter. Four hours.
- 120. SOCIAL MEASUREMENTS, STATISTICS, AND SURVEYS—Four hours.  
Not offered in 1930-31.
- 125. SOCIAL PROBLEMS—Fall and spring quarters. Four hours.
- 130. THE SOCIOLOGICAL ASPECTS OF PATRIOTISM, PEACE, AND WAR—Summer quarter. Four hours.
- 135. RACES, RACE CONTACT, AND RACE PROBLEMS—Fall, spring, and summer quarters. Four hours.
- 140. SOCIAL PSYCHOLOGY—Fall and spring quarters. Four hours.
- 145. THE HISTORY OF SOCIAL THEORY—Winter quarter. Four hours.
- 150. THE SOCIAL THEORY OF EDUCATION—Winter and summer quarters. Four hours.
- 200. SEMINAR—When requested by six or more students. Four hours.
- 205. ADVANCED SOCIOLOGICAL THEORY—Winter and summer quarters. Four hours.
- 223. RESEARCH IN SOCIOLOGY—Every quarter. Four hours.
- 224. RESEARCH IN SOCIOLOGY—Every quarter. Four hours.
- 225. RESEARCH IN SOCIOLOGY—Every quarter. Two hours.

**GRADUATE STUDENTS ENROLLED IN COLORADO STATE TEACHERS COLLEGE  
FOR THE FOUR QUARTERS OF 1928-29 WHO WERE WORKING  
ON THEIR MASTER'S RESEARCH STUDY**

NAME AND HOME OR TEACHING ADDRESS	MAJOR DEPARTMENT	TITLE OF RESEARCH STUDY
ADOLPH, JACOB Greeley, Colorado	Industrial Arts	A Study of the Types of Industrial Work for Boys in the Junior High Schools of Arizona and Its Relation to Industry
ALBRECHT, CHRISTINE M. Weldona, Colorado	History	A History of the Development of Irrigation in Morgan County
ALLISON, FLORA A. Sterling, Colorado	Education	Relationship of Pupil Achievement to Teacher Qualifications in Two Types of Rural Schools in Logan County, Colo.
ANDERSON, MRS. FRANCES R. R. No. 6, Box 214 Greeley, Colorado	Education	English Errors in Spontaneous Letters of Sixth Grade Pupils
ANDREWS, KATE CLARK 850 E. Craig Place San Antonio, Texas	Home Economics	Is Green Japanese Tea a Source of Vitamin C?
ANTONIO, SYLVESTRE M. Santa Maria, Ilocos Sur, Philippine Is.	Education	Hypotheses in the Administration and Supervision of Teacher-Training Schools and Their Application in the Philippine Islands
ARMENTROUT, P. C. Erie, Colorado	English	High School Journalism as an Aid in Teaching English Composition
BAGBY, MRS. ALMA Walden, Colorado	Commercial Education	An Analysis of Transcription Errors in Shorthand for the Diagnosis of Difficulties
BALL, JULIA MOORE 442 Barrett Place, San Antonio, Texas	Education	Tolerance and Openmindedness as Character Studies
BARBEE, WILLIAM T. Weslaco, Texas	Education	Relation between Training Received and Subjects Taught of Colorado State Teachers College Graduates
BARNES, CARL B. Bowling Green, Ky.	Industrial Arts	The Logical Organization of Mechanical Drawing Content in High School Courses
BARTLEY, DAISY Supervisor, Council Bluffs and Omaha	Educational Psychology	A Test in Government and Civics for Use in Teachers' Colleges
BASHAW, STANLEY J. Ovid, Colorado	Education	Problems of the Small High School
BASHOR, ESTA M. Greeley, Colorado	History	Relative Value of Various Methods of Presentation of Junior High School History Measured in Terms of Retention
BERG, MATILDA 405 W. 12th Street Pueblo, Colorado	Commercial Education	An Analysis and Comparison of Texts in Business Arithmetic
BERNARD, TED B. 707 S. Walnut Sherman, Texas	Education	Reactions of High School Students and Teachers Toward the Curricula in Texas High Schools
BLAKELEY, MRS. ELSIE J. Norman, Oklahoma	Education	A study of the Camp Fire Girls Organization



NAME AND HOME OR TEACHING ADDRESS	MAJOR DEPARTMENT	TITLE OF RESEARCH STUDY
BLUE, HAROLD GRANVILLE University of Chicago	Education	A Study of Electives Embodied in the Training of Two-Year and Four-Year Graduates of Colorado State Teachers College
BOATMAN, MYRTLE O. Spickard, Missouri	Commercial Educational	Specialized Fields in Salesmanship and Content Material Appropriate for the Secondary Schools of Colorado
BONSEY, W. EDWIN Lorain, Ohio	Education	The Development of a Scientific Habit of Mind in the Layman
BOONE, EILEEN Kirk, Colorado	Home Economics	The Place Home Economics Takes in the Preparation of Teachers of Pre-School Education in Teacher-Training Institutions
BOYCE, MRS. MABEL D. 2805 E. 16th Ave. Denver, Colorado	Educational Psychology	The Social Program of 500 Families of Colorado Children
BRANNAMAN, RAY H. Gilcrest, Colorado	Education	Factors in Teacherages Influencing Rural Education
BRICKEL, B. STELLA Denver, Colorado	Education	An Investigation of School Theme Vocabularies in the Fourth Grades of the Denver Public Schools
BROOKSHIER, RUTH L. 212 Elati, Denver, Colorado	Education	A Study of the Extent, Amount and Character of the Reading of Young People and Adults
BROWN, FRANK Chadron, Nebraska	Mathematics	The Prognosis of Ability in Teachers College Mathematics on the Basis of English, Intelligence, and General Achievement
BRYAN, F. K. K.S.T.C. Pittsburg, Kansas	Industrial Arts	Trade and Industrial Education in Colorado
BUSTER, N. E. Fort Worth, Texas	Education	Practices in the Junior High Schools
CALDWELL, J. C. Gill, Colorado	Education	A Comparative Study of the Practices of Teaching Thrift in the Junior and Senior High School
CARSON, W. H. Ogbomoso, Nigeria, South Africa	Education	The Principal Difficulties in Teaching English to the Nigerian West African Native
CHRISTIAN, CHARLOTTE R. 2811 Gaylord St., Denver, Colorado	Education	A Study of Certain Types of Errors Found in Spontaneous Letters of Fifth and Sixth Grade Children
CLOYD, VELMA East Tennessee State Teachers College, Johnson City, Tennessee	Mathematics	A Quantitative and Qualitative Analysis of Ninth Grade Algebra Tests
COCHRAN, JOHN I. Merino, Colorado	Education	Educational Leadership in Community Activities
COLBURN, ELIZABETH 3144 10th Ave. So., Minneapolis, Minn.	Geography	The Geography of Fort Dodge, Iowa, and Vicinity
COLEMAN, SARA Tulsa, Oklahoma	History and Political Science	The Relation of Personal Qualities to the Successful Teaching of Social Science
COLVIN, AMBROSE O. Greeley, Colorado	Sociology	Commercial Education in the Secondary Schools of Colorado

NAME AND HOME OR TEACHING ADDRESS	MAJOR DEPARTMENT	TITLE OF RESEARCH STUDY
CONDIT, PHILIP M. 1608 No. Cincinnati Tulsa, Oklahoma	Educational Psychology	An Entrance and Classification Examination in World History for Teachers Colleges
COOMBS, P. H. Hecla, South Dakota	Education	Prediction of Teaching Success
COOPER, LOIS E. Mancos, Colorado	English	A Study of the Letter Writing of Junior High School Pupils
COX, MARIAN A. (Mrs. HOWARD MCKINLEY) Washington, D. C.	Education	The Vocabulary of Third Grade Children's Letters
DAY, FRANK S. Flagler, Colorado	Education	An Analysis of the Duties and Difficulties of Superintendents of Small Town High Schools in Colorado
DENNEY, EARL C. Tulsa, Oklahoma	Educational Psychology	An Entrance and Classification Examination in Physics and Chemistry for Teachers Colleges
DICKERSON, ELEANOR SIMMONS Greeley, Colorado	History and Political Science	What is Known about the Teaching of History in Grades One to Six
DICKSON, W. WALLACE R.R. No. 1, Box 94 Amarillo, Texas	Education	Status of Elementary School Principals of Texas
DIDDEL, NORMA L. 852 Cook St., Denver, Colorado	Art	Results of Teaching Design by Formal and by Free Methods
DITMARS, MARY Elizabeth, Colorado	History and Political Science	A History of Douglas County, Colorado
DOBSON, W. B. Fort Worth, Texas	Education	A Study of Time Allotments in the Elementary School Subjects
DOTSON, EDNA Arizona State Teachers College Flagstaff, Arizona	Commercial Education	The Status of Shorthand in Teacher-Training Institutions
DOTSON, RUTH Flagstaff, Arizona	Educational Psychology	Tests Versus Practice as a Teaching Device
DOUBENMIER, J. S. Greeley, Colorado	History and Political Science	A History of the Teaching of Physical Education and Athletics in the United States of America
DURLINGER, GLENN W. Sterling, Colorado	Physics	What Material from the Realm of Modern Physics Should be Taught in the High School Physics Course
EMANUEL, MARY A. Douglas, Arizona	English and Literature	The Standards of Usage in Punctuation and Spelling
ESSERT, PAUL L. Sterling, Colorado	Education	Analysis of the Specific Situations Involved in the Teaching of Obedience
FLAGLER, MORNA E. Pueblo, Colorado	Education	Discipline Children in Special Rooms in the Elementary School
FOSTER, C. A. Snyder, Colorado	Chemistry	High School Chemistry Examinations
FOSTER, H. L. 212 N. 3rd Street Longview, Texas	Education	A Comparison of the Educational Abilities and Achievements of the White and Colored Pupils in the Longview City Schools

NAME AND HOME OR TEACHING ADDRESS	MAJOR DEPARTMENT	TITLE OF RESEARCH STUDY
FRUTCHEY, FRED P. 147 N. 11th, Allentown, Pennsylvania	Education	Some Factors in Determining High School Success
GAIL, W. A. 3449 Monroe, Denver, Colorado	Education	Problems of Labor and Industry
GANT, N. A. Ft. Worth, Texas	History and Political Science	Texas on the Eve of the Compromise of 1850
GARRISON, LLOYD A. Ault, Colorado	Education	A Study of the Aims, Activities, and Organization of the Home Room in Selected Secondary Schools
GIESING, MRS. EDNA 2725 W. Kiowa St., Colorado Springs, Colo.	Mathematics	The Influence of the Initial-Error Theory on Education
GILLIS, MAY E. 1420 Logan St., Denver, Colorado	History and Political Science	A History of the Civic Center of Denver
GISH, LEE NASH Little River, Kansas	Education	A Further Analysis of the Duties and Difficulties of Citizenship
GOOD, LEONARD F. Chappell, Nebraska	Education	Administration of the Finances of Extra-Curricular Activities
GREENAMYRE, KATHERINE LaJunta, Colorado	English and Literature	Minimum Essentials in Written English for Secondary Schools
GROVE, CHARLOTTE 1716 Belmont Fort Worth, Texas	Education	A Comparison of the Number of Facts Learned by Children from Factual Material and from Story-Factual Material
HAMILTON, DWIGHT R.R. No. 1 Johnstown, Colorado	Education	An Experiment to Determine the Relative Efficiency of Teaching Spelling in the Sixth Grade by the Horn-Ashbaugh Method and an Individual Technique
HARBALL, MRS. HELEN R.R. No. 5 La Junta, Colorado	Home Economics	The Preparation of Teachers of Adult Education for Homemakers
HARDY, RUTH Texarkana, Texas	History and Political Science	A Proposed Manual for High School History Teachers in the State of Oklahoma
HARGROVE, WILLIAM HENRY Greeley, Colorado	Education	The Status of Extra-Mural Student Teaching in State Teachers Colleges and Normal Schools in the United States
HARMER, MRS. BLANCHE 1925 Tenth Ave., Greeley, Colorado	Geography	Geographic Relationship of the Products of Greeley and Vicinity
HARMER, RALPH L. 1925 Tenth Ave., Greeley, Colorado	Education	An Analysis of the Present Status of Band Work in Those Schools that have Placed in National and State Contests
HARRISON, POLLY 2001 Washington Ave., Ft. Worth, Texas	Art	An Analysis of Art Literature to Determine the High School Art Curriculum
HAWKINS, EDWIN CURTIS Antonito, Colorado	Education	The Situations of Good Sportsmanship
HEILIG, IRMA R. San Antonio, Texas	Education	The Persistence of Initial Errors in Spelling

NAME AND HOME OR TEACHING ADDRESS	MAJOR DEPARTMENT	TITLE OF RESEARCH STUDY
HIGHBERGER, HARRIET Pueblo, Colorado	Education	A Comparison of Mental Abilities of Children of Foreign Born Parentage
HILEMAN, MARY L. Peru, Nebraska	Geography	The Bean Industry of Weld County
HINTON, JESSE MERCER 5329 Collinwood Ft. Worth, Texas	Education	A Study of Some Factors Relating to Achievement in High School Industrial Arts
HODGE, MAY MOTT Barry, Texas	History and Political Science	The Relation of Methods of Presentation to Retention of Facts in Teaching History on the High School Level
HORNER, CHESTER W. Colorado Springs, Colorado	Commercial Education	The Objectives of a Course in Advertising on the High School Level as Based on a Study of Colorado Springs, Colorado
HOUSE, HAZELLE L. Pasadena, Calif.	Sociology	The Americanization of the Japanese
HUDSON, EVA M. Tempe, Arizona	Education	A Study of the Voluntary Reading of Children in the Intermediate Grades, Junior High School, and Senior High School
HUNTER, EULA F. 1324 E. Morphy St., Ft. Worth, Texas	Education	The Teacher's Extra Curricular Load
HURD, PAUL D. Greeley, Colorado	Biology	A Study of the Ability of Children to Learn to Think Scientifically from Science Instruction
HUTCHERSON, IRENE Elida, New Mexico	Education	The Vocabulary of Third Grade Children's School Themes
JAMES, MINNIE B. Maryville, Missouri	English and Literature	The Educational Theories of H. G. Wells Compared with Those of Modern Practices
JOHNSON, IRVING W. Park City, Montana	Sociology	The Social Significance of the Extra Curricular Magazine Reading of High School Pupils
JOHNSTON, CHARLES T. Pueblo, Colorado	Education	A Study of the Boy Scout Organization
KANE, CLAUDE A. LaJunta, Colorado	Education	The Need of a State School Architect for the State of Colorado
KAUFMANN, MYRTLE L. 416 E. 27th St., Cheyenne, Wyoming	History and Political Science	A Survey of the History Teaching Situation in the Public Elementary Schools of Spokane, Washington, in 1927-1928
KEETH, A. M. Morley, Colorado	Education	Routine Duties in Classroom Management
KEEVER, J. C. Greeley, Colorado	Education	State Aid, and the Evils of the Present Plan of State Aid in Colorado
KESSLER, LEOLA E. Haxtun, Colorado	Home Economics	A Standard Practice House Kitchen for Teacher Training in Efficient Home-making
LANE, JESSIE I. Lewiston, Montana	Education	A Study of the Language of Pre-School Children
LAWRENCE, HAROLD S. 2540 Main St., Canon City, Colorado	Mathematics	The Re-Organization of Senior High School Mathematics

NAME AND HOME OR TEACHING ADDRESS	MAJOR DEPARTMENT	TITLE OF RESEARCH STUDY
LIEBERMAN, MYER H. White Plains, New York City	Sociology	An Entrance and Classification Examination in Sociology and Economics for Teachers Colleges
MACKEY, DONALD Raton, New Mexico	Education	Report of a Survey of the Raton Public Schools
MCCAIN, L. P. Spearfish, South Dakota	Education	The Professional Preparation of Teachers of Grade Geography
MCCAULEY, G. KENT Las Animas, Colorado	Education	Spelling Errors
MCCLARY, HELEN M. Berwind, Colorado	Home Economics	Rayon, a Flower of the Sciences
MCCLURE, RUTH Oregon State Normal School, Monmouth, Oregon	Education	An Analysis of the Vocabulary of Fourth, Fifth, and Sixth Grade Children's Letters
MCCONE, PERCY V. Wood, South Dakota	Sociology	A Study of the Factors Contributing to the Delinquency of Certain Classes of Juvenile Delinquents
MCCULLOUGH, ADAH Calhan, Colorado	English and Literature	A Comparative Study of the Value of Supplementary Reading Courses, in Secondary Schools, as Prescribed by the Representative States of California, Wisconsin, North Carolina, Illinois, New York, Massachusetts, and Missouri
MCGREW, HELEN G. Greeley, Colorado	English and Literature	Effect of Compulsory Outside Reading in High Schools Upon Students' Voluntary Reading
McMILLIN, LESTER B. 231 E. Georgia, Gunnison, Colorado	Education	The General Qualities or Traits Necessary for Occupational or Vocational Success in the Life of a Good Citizen
MAHAN, HARRIET S. 1214 18th St., Greeley, Colorado	Educational Psychology	The Validity and Reliability of Four Teaching Aptitude Tests
MICHAEL, M. BELLE Route A, Calhan, Colorado	Education	A Study in Reading Vocabulary
MILLER, ERLE W. 612 19th St., Greeley, Colorado	Education	Minimum Enrollment of High Schools in Colorado on the Basis of Financial and Educational Efficiency
MILLEY, HARRIET M. Windsor, Colorado	Commercial Education	Content of a Course in Business English for Secondary Schools
MOHR, E. E. Greeley, Colorado	Education	Organization of Reading Materials in Music for High Schools
MOORE, RUTH E. 1224 E. Randolph, Enid, Oklahoma	Mathematics	An Experiment in Two Methods of Teaching Geometry
MOORE, T. E. 216 E. 35th St., Kansas City, Missouri	Education	The Relation Between High School Attendance and Free Tuition in Colorado
MORELAND, JERRE FLOYD Milliken, Colorado	Education	A Study of Some Educational Inequalities in Weld County
NICHOLSON, PAUL H. Frederick, Colorado	Education	Financial Accounting Systems in Public Schools

NAME AND HOME OR TEACHING ADDRESS	MAJOR DEPARTMENT	TITLE OF RESEARCH STUDY
NOWLIN, E. W. Webster Groves, Missouri	Education	The Vocabulary of Sixth Grade Children's School Themes
OGLE, J. MAX Galeton, Colorado	Education	The Saturday Evening Post as a Source of Social Science Concepts
PARIS, LILLIAN HOSFORD Lake Arthur, New Mexico	Education	A Study of Achievement of Junior High School Boys to Discover a Reason for Dropping out of School in the Upper Grades
PAYE, PAUL 1020 P Street Wilmington, California	Sociology	The Religious Beliefs of College Students
PECK, HOMER N. Denver, Colorado	Education	The Relationship Between the Participation in Extra Curricular Activities in High School and Success in Adult Life
PITTMAN, BERTHA Tandy School, Ft. Worth, Texas	Education	An Analysis of Topics for Elementary School Children's Theme Subjects Through Investigation of Their Spontaneous Correspondence
PRATT, HARRY D. Ault, Colorado	Education	An Investigation of the School Writing Vocabulary of Fifth Grade Pupils
PRUEHS, CLARA M. Webster Groves, Missouri	Commercial Education	A Study to Determine What the Course in Commercial Arithmetic in Secondary Schools Should Include
PURDY, LUCY LaJunta, Colorado	Commercial Education	Results of Annual Commercial Contests Compared with the Training of Commercial Teachers Participating
RAMSEY, CARRIE B. Eads, Colorado	Mathematics	Diagnostic Tests in the Teaching of Plane Geometry
RATLIFF, LAVADA Seymour, Texas	Educational Psychology	A High School Mathematics Examination for Use in Teachers Colleges
REEVES, LUELLE SALE Box 518, Canyon, Texas	Education	The Activities of Extension Departments in State Teachers Colleges
REID, BENETA Dearborn, Missouri	Home Economics	The Present Status of the Organization for Teaching Home Economics Courses in Secondary Schools
REINI, GERTRUDE H. Parshall, Colorado	History and Political Science	History of the National Forest in Colorado
REYNARD, MARY L. Ft. Morgan, Colorado	History and Political Science	Social and Economic Conditions as Revealed by the New York Colonial Documents
RIDDLE, C. C. Pueblo, Colorado	Education	The Vocabulary of Fifth Grade Children's Letters
ROADARMER, HELEN Chadron, Nebraska	English and Literature	A Study of the Need of Prospective Teachers of Junior High School English for Training in Modern Literature
ROBERTS, ELMER C. Nampa, Idaho	Commercial Education	The Status of Typewriting in Teacher-Training Institutions
ROBINSON, CLARK S. Owensboro, Kentucky	Education	A Curriculum Study in Government
ROBINSON, R. T. San Antonio, Texas	Education	Inarticulation or Lack of Continuity of Subject Matter and Teaching Methods of Junior-Senior High Schools of San Antonio, Texas

NAME AND HOME OR TEACHING ADDRESS	MAJOR DEPARTMENT	TITLE OF RESEARCH STUDY
ROSE, LOIS L. Englewood, Colorado	English and Literature	The Cultural Background Needed for the Teaching of Literature in the Senior High School
ROUSE, LAURANCE T. Bisbee, Arizona	Education	An Analysis of the Difficulty of Concepts in Elementary Science Textbooks
RUSSELL, J. C. Dewar, Oklahoma	History and Political Science	To Write an Account which will Portray Accurately the Reputation of the Plains Indians among Those who Were in a Position to Know Them Best
RUSSELL, MRS. J. C. Dewar, Oklahoma	Home Economics	A Short Unit in a High School Course in Clothing Justified by the Consumers' Increasing Demand for Fur
SAATHOFF, W. H. Brookings, South Dakota	Commercial Education	The Problem of Developing Direct Application of Business Subjects in School Work
SCHAEFER, MILDRED Ft. Morgan, Colorado	Education	The Professional Preparation of Teachers of Elementary School Music
SCHILLINGER, ESTHER K. 538 W. Glen Oaks, Burbank, California	Sociology	Social Contacts of the Immigrant Mexicans of Weld County
SHANE, JESSIE 111 Sandoval, San Antonio, Texas	Education	An Analysis of the Problems Discussed, Names and Events Mentioned, and Allusions Made in Magazine Articles that have been Selected on the Basis of Their Lasting Interest
SHAVER, MRS. MOREY Maysville, Missouri	Education	The Personal and Environmental Factors of Mortality in the Small High School
SHOEMAKER, LOTTIE Lusk, Wyoming	History and Political Science	History Objectives for the Intermediate Grades
SHREVES, MRS. ANNE E. Berthoud, Colorado	Education	Poetic Values and Children's Choices in Poetry
SIMMONS, JESSIE J. 813 Wabash, Carthage, Illinois	English and Literature	A Practical Course in Business and Vocational English for the Carthage, Illinois, High School
SIMPSON, MARY IONE Ellensburg, Washington	Education	The Vocabulary of Children's Letters
SKINNER, BLANCHE La Grange, Missouri	Education	A Comparison of the Character Traits Shown in History Textbook Biographies with the Traits of Good Citizenship
SKIPPING, WILLIAM R. 119 McCullough, San Benito, Texas	Education	A Study of the Inequalities of Educational Opportunity in Cameron County, Texas
SMITH, PEARL GAULT Kimball, Nebraska	History and Political Science	An Investigation of the Effect of Retesting on the Learning Process in the Field of Social Science
SONGER, MYRTLE Chadron, Nebraska	Education	Some Problems of Health Supervision of Schools with Special Reference to the Rural Schools of Jefferson County, Colorado
SPARKS, HELEN Raton, New Mexico	Education	Grade Placement of Children's Reading Materials
STEPHENS, ELEANOR 1507 15th Ave., Greeley, Colorado	English and Literature	The Social Background for the Study of English Literature

NAME AND HOME OR TEACHING ADDRESS	MAJOR DEPARTMENT	TITLE OF RESEARCH STUDY
STEPHENS, REID Oak Park, Illinois	History and Political Science	Trade of the South Colonies With the West Indies, 1606-1783
SULLIVAN, SISTER SCHOLASTICA 622 West Sixth, Denver, Colorado	English and Literature	Historical Background Conducive to the Enrichment of American Literature in Senior High School
TALBOT, DEVERYLE K. (MRS. CURTIS RILEY) 1044 Acoma, Apt. No. 106, Denver, Colorado	Sociology	Contributions of American Sociologists to the Theory and Practice of Education
TAYLOR, RACHEL 412 13th Ave., Greeley, Colorado	Mathematics	The Reality of Ninth Grade Algebra Problems
TAYLOR, SHIRLEY R. West High School, Denver, Colorado	Chemistry	A Survey of the Visual Aids Used in Teaching High School Chemistry
TERRELL, C. W. 1006 E. Wilamette, Colorado Springs, Colo.	Education	Economics Used by Frontier Thinkers Concerning Contemporary Life as a Basis for Junior High School Curriculum
THOMPSON, CLARA REBECCA 801 N. Caddo, Weatherford, Oklahoma	Education	The Relative Value of Factual Material as such and the Value of Factual Ma- terial Told in Story Form in Its Effect Upon Permanency and Extent of Learn- ing, Under the Conditions of Student Teaching
THOMPSON, EDWARD MERLE Rock Springs, Wyoming	Education	Educational Inequalities in the Distribu- tion of Federal and State School Aid in Wyoming
THOMPSON, HARRY G. Bisbee, Arizona	Education	State and National Standards for the Certification of Industrial Arts Teachers
TOLIN, CHARLES MELVIN 1303 N. Wahsatch, Colorado Springs, Colo.	Education	What a Layman Needs to Know About Life Insurance
TOZER, GEORGE EDWARD Windsor, Colorado	Education	A Statistical Prediction of High School Success for Purposes of Educational Guidance
UDICK, BERNICE School of the Sacred Heart, Clifton, Cincinnati, Ohio	Romance Languages	Gabriela Mistral: A Study of One of the Great Women of Today
WAITT, RUSSELL E. 1901 Vilas Ave., Madison, Wisconsin	Sociology	The Significance of Sociology for Moral Education
WALKER, LILLIAN O. Denton, Texas	English and Literature	Mechanical Errors Made in English Composition by College Freshmen
WALKER, MYRTH OWSTON Norwood, Colorado	English and Literature	The Educational Implications of the Poetry of William Wordsworth
WALKER, T. WENDELL Norwood, Colorado	History and Political Science	The Epic of the Dry Lands
WALSH, JOHN E. 507 Sixth Ave., Nampa, Idaho	Education	A Tentative List of Objectives for the Teaching of Social Science in the Senior High School



NAME AND HOME OR TEACHING ADDRESS	MAJOR DEPARTMENT	TITLE OF RESEARCH STUDY
WALSH, S. S. Caldwell, Idaho	History and Political Science	The Relation of Methods of Presentation to the Retention of Facts in History in Grades Four to Nine
WATSON, ALBERT M. R.R. No. 2, Burlington, Colorado	Education	Activities of Junior and Senior High School Pupils Outside of the School
WELLS, CLAUDE L. Atwood, Colorado	Education	A Study of Student Elimination from Colorado State Teachers College
WILSON, ALBERT V. Paonia, Colorado	Education	Newspaper Publicity in the Schools of Colorado
WOOD, HOWARD W. Florence, Alabama	Chemistry	The Status of Laboratory Work in the High Schools of the United States
WRIGHT, CHATT G. Fleming, Colorado	Education	An Analysis of Honesty as a Funda- mental Human Trait
WYATT, OSCAR D. 3311 Avenue L Ft. Worth, Texas	Education	An Analysis of Leisure Time Activities of Adults in Fort Worth, Texas
YOUNG, DELLA R. Mont. State College, Bozeman, Montana	Commercial Education	A Survey of Commercial Education in Secondary Schools of Montana
ZIEGLER, T. F. Scottsbluff, Nebraska	Education	Study of the Correlation Between the Content of High School Physics Courses in Electricity and the Actual Knowledge of Electricity needed by High School Graduates











COLORADO STATE TEACHERS COLLEGE



Miss Ruth Judy



Mr. A. M. Hinds

# Commercial Education

SUMMER SCHOOL  
1930

GREELEY, COLORADO

# Offerings in the Department of Commercial Education for the Summer, 1930



In preparing the program of courses to be offered in the Summer Quarter, the Commercial Education Department has in addition to its regular curriculum placed extraordinary emphasis on handwriting because of a widespread interest and demand on the part of teachers of penmanship. As a part of this plan, the department has engaged the services of two outstanding teachers of penmanship, namely:

MR. A. M. HINDS—Supervisor of Penmanship in the Louisville (Kentucky) Public Schools.

Mr. Hinds was for a time associated with Dr. Frank N. Freeman in conducting summer school courses in the Freeman correlated handwriting methods. For a number of years he was with the Cass Technical High School in Detroit.

MISS RUTH JUDY—Representative of the A. M. Palmer Company.

Miss Judy is the traveling representative of the Palmer Company, and a demonstrator of the Palmer method of handwriting. She conducted special classes during the summer school at Colorado State Teachers College last year, and made such an impression that she was urged to return.

## I. SPECIAL METHODS COURSES

The department will offer an unusual number of special methods courses during the coming summer quarter. These courses emphasize methods and material and are not content courses. The following separate and distinct courses will be offered, each of which will run for a period of five weeks:

- Methods of Teaching Shorthand, 2 hours credit.
- Handwriting Methods (Palmer), 1 hour credit.
- Handwriting Methods (Freeman Correlated), 1 hour credit.
- Material and Methods for Teaching Junior Business Training, 2 hours credit.
- Material and Methods for Teaching Filing, 2 hours credit.
- Methods of Teaching Bookkeeping, 2 hours credit.



## II. SHORT COURSES

A special effort has been made to accommodate the program to the student who can attend summer school for only five weeks during the year. The courses are so arranged that it is possible for the student to plan a program for either the first five weeks of the summer quarter, or for the last five weeks if he prefers to attend for the second half only.

The following courses are offered for the first half only:

Methods of Teaching Shorthand  
Handwriting Methods (Freeman Correlated)  
Typewriting III  
Investments  
Commercial Education in Secondary Schools  
Business Mathematics  
Methods of Teaching Filing

The following courses are offered for the second half only:

Handwriting Methods (Palmer)  
Material and Methods for Teaching Junior Business Training  
Business Administration  
Methods of Teaching Bookkeeping

The following courses are offered for the first half or for the full quarter:

Typewriting I  
Secretarial Science  
Shorthand I  
Commercial Law I  
Accounting I

The following courses are offered for the full quarter only:

Accounting II  
Theses in Commercial Education  
Shorthand II

## III. THE FACULTY

All of the regular members of the faculty of the department will conduct classes during the summer school and two specialists in commercial education will be added to the regular staff. Mr. A. M. Hinds, supervisor of penmanship in the public schools of Louisville, Ky., and Miss Judy of the A. N. Palmer Co. of Chicago, will both be included in the summer faculty.

**FIRST HALF BEGINS JUNE 14, ENDS JULY 19**  
**SECOND HALF BEGINS JULY 21, ENDS AUGUST 23**

For Year Book of the College or detailed information concerning the work offered in any of the departments, write to the President, George Willard Frasier, Greeley, Colorado.



COLORADO STATE TEACHERS COLLEGE



COURSES AND SPECIAL FEATURES

IN

*Elementary Education*



SUMMER SCHOOL

~ 1930 ~

GREELEY, COLORADO

**T**HE EDUCATION DEPARTMENT has made special preparations for the Elementary School Teacher desirous of advancing professionally by attending the 1930 summer school at Greeley. The work of the department has been so arranged and divided as to emphasize the courses for those engaged in elementary education.

In addition to the regular faculty of the department several specialists in their particular fields have been brought in to conduct courses, including among others, R. L. Hunt; Superintendent of Schools, Madison, South Dakota; R. D. McClintock, Superintendent of Schools, Julesburg, Colorado; J. H. Risley, Superintendent of Schools, Pueblo, Colorado; I. E. Stutsman, Superintendent of Schools, Greeley, Colorado; Dr. George S. Counts, International Institute, Teachers College, Columbia University; Dr. Elwood P. Cubberley, Dean, School of Education, Leland Stanford, Jr., University; Dr. Jesse H. Newlon, Director, Lincoln School of Teachers College, Columbia; Dr. Jesses Sears, School of Education, Leland Stanford, Jr., University; Miss Jessie Hamilton, Principal, Morey Junior High School, Denver, Colorado; Dr. Merle Prunty, Superintendent of Schools, Tulsa, Oklahoma; Dr. Raleigh Schorling, School of Education, University of Michigan, Ann Arbor, Michigan; F. A. Ogle, County Superintendent of Schools, Weld County, Greeley, Colorado; Paul Essert, Principal of the Junior High School, Sterling, Colorado; G. K. McCauley, Superintendent of Schools, Las Animas, Colorado; Mr. Earl B. Moore, Scout Executive, Weld-Morgan Counties, Colorado; Mrs. Spencer Turner, Camp Fire Guardian, Greeley, Colorado.

## THE COURSES

Courses primarily of interest to those engaged in elementary education are:

3a. LANGUAGE ARTS IN THE PRIMARY GRADES—Either half or full quarter. Two or four hours.

3b. SOCIAL ARTS IN THE PRIMARY GRADES—Either half or full quarter. Two or four hours.

3c. KINDERGARTEN-PRIMARY MATERIALS—Either half or full quarter. Two or four hours.

4a. LANGUAGE ARTS IN THE INTERMEDIATE GRADES—Either half or full quarter. Two or four hours.

10. PROBLEMS OF EDUCATION—Full quarter. Four hours.

Prerequisites, Ed. 1 and Sophomore standing.

100g. UNIT COURSES IN MAJOR CLASSES OF KNOWLEDGE—Each course for two weeks. Each carries one hour's credit. Any one or more may be taken.

The following units will be given: Unit 1—Recreational Education, June 16-26; Unit 2—Economic-Industrial Education, June 30 to July 10; Unit 3—Home and Family Education, July 30 to August 10; Unit 4—Citizenship Education, August 14 to 24.

100j. UNIT COURSE IN INTERNATIONAL EDUCATION, June 16-26. One hour's credit.

100k. UNIT COURSES IN GUIDANCE—Each course for two weeks. Each carries one hour's credit. The following units will be given this summer: Unit 1—Problems of Personality Adjustment, June 16-26; Unit 2—Counselling Methods

and Techniques, June 30 to July 10; Unit 3—Guidance Problems in the Junior High School, August 4-14.

100L. UNIT COURSE IN EDUCATIONAL VALUES, June 15-26—One hour's credit.

107. METHODS OF IMPROVING READING AND STUDY HABITS OF ELEMENTARY SCHOOL CHILDREN—Either half or full quarter. Two or four hours.

108. EDUCATIONAL SUPERVISION—Either half or full quarter. Two or four hours.

First half—SUPERVISION OF SKILL SUBJECTS; Second half—SUPERVISION OF CONTENT SUBJECTS.

110. EXTRA-CURRICULAR ACTIVITIES—Either half or full quarter. Two or four hours.

110b. CITIZENSHIP EDUCATION IN THE GRADES—First half quarter. Two hours.

111. PHILOSOPHY OF EDUCATION—Full quarter. Four hours. Required fourth year.

115. ORGANIZATION AND ADMINISTRATION OF THE ELEMENTARY SCHOOL—Either half or full quarter. Two or four hours.

117. PROBLEMS OF SCHOOL DISCIPLINE—Second half. Two hours.

118. PROBLEMS OF CHARACTER AND MORAL EDUCATION—Second half. Two hours.

129. CURRENT EDUCATIONAL THOUGHT, Formerly Ed. 229—Either half or full quarter. Two or four hours.

134. HISTORY OF EDUCATION IN THE UNITED STATES—Full quarter. Four hours.

150. FOUNDATIONS OF METHOD—Either half or full quarter. Two or four hours.

151. THE PRE-SCHOOL—Either half or full quarter. Two or four hours.

152. THE CHILD AND HIS SCHOOL—Second half quarter. Two hours.

192. TRAINING SCHOOL PROBLEMS IN THE PROFESSIONAL EDUCATION OF TEACHERS—Second half quarter. Two hours.

209. ADVANCED PROBLEMS OF THE CURRICULUM—Either half or full quarter. Two or four hours.

211. CONCEPTIONS OF MIND IN EDUCATIONAL THEORY—Either half or full quarter. Two or four hours.

230. HISTORY OF PHILOSOPHY—First half. Two hours.

258. PROBLEMS OF ELEMENTARY EDUCATION (Spelling, Reading, and Literature)—Either half or full quarter. Two or four hours.

259. PROBLEMS OF ELEMENTARY EDUCATION (Social Science, Problem Method, Socialized Recitation)—Either half or full quarter. Two or four hours.

260. PROBLEMS OF ELEMENTARY EDUCATION (Handwriting, Composition, Arithmetic)—Either half or full quarter. Two or four hours.

**FIRST HALF OF THE SUMMER QUARTER STARTS JUNE 15, ENDS JULY 19—SECOND HALF BEGINS JULY 21, ENDS AUGUST 23**

For catalog and detailed information concerning the College or any of the courses offered in the various departments, write for literature. Address the president, George Willard Frasier, Greeley, Colorado.



COLORADO STATE TEACHERS COLLEGE



COURSES AND SPECIAL FEATURES

IN

*Secondary Education  
and Administration*

SUMMER SCHOOL

~1930~

GREELEY, COLORADO

**T**HE EDUCATION DEPARTMENT has made special preparations for the administrator, the supervisor, and the secondary school teacher desirous of advancing professionally by attending the 1930 summer school at Greeley. The work of the department has been so arranged and divided as to emphasize the courses for those engaged in secondary education.

In addition to the regular faculty of the department several specialists in their particular fields have been brought in to conduct courses including among others: Mr. R. L. Hunt, Superintendent of Schools, Madison, South Dakota; Mr. R. D. McClintock, Superintendent of Schools, Julesburg, Colorado; Mr. J. H. Risley, Superintendent of Schools, Pueblo, Colorado; Mr. I. E. Stutsman, Superintendent of Schools, Greeley, Colorado; Dr. George S. Counts, International Institute, Teachers College, Columbia University; Dr. Elwood P. Cubberley, Dean, School of Education, Leland Stanford, Jr., University; Dr. Jesse H. Newlon, Director, Lincoln School of Teachers College, Columbia; Dr. Jesse Sears, School of Education, Leland Stanford, Jr., University; Miss Jessie Hamilton, Principal, Morey Junior High School, Denver, Colorado; Dr. Merle Prunty, Superintendent of Schools, Tulsa, Oklahoma; Dr. Raleigh Schorling, School of Education, University of Michigan, Ann Arbor, Michigan; Mr. F. A. Ogle, County Superintendent of Schools, Weld County, Greeley, Colorado; Mr. Paul Essert, Principal of the Junior High School, Sterling, Colorado; Mr. G. K. McCauley, Superintendent of Schools, Las Animas, Colorado; Mr. Earl B. Moore, Scout Executive, Weld-Morgan Counties, Colorado; Mrs. Spencer Turner, Camp Fire Guardian, Greeley, Colorado.

## THE COURSES

Courses primarily of interest to those engaged in secondary education and administration are:

15. EDUCATIONAL GUIDANCE—First half quarter. Two hours.

100g. UNIT COURSES IN MAJOR CLASSES OF KNOWLEDGE—Each course for two weeks. Each carries one hour's credit. Any one or more may be taken.

The following units will be given: Unit 1—Recreational Education, June 16-26; Unit 2—Economic-Industrial Education, June 30-July 10; Unit 3—Home and Family Education, July 30-August 10; Unit 4—Citizenship Education, August 14-24.

100j. UNIT COURSE IN INTERNATIONAL EDUCATION, June 16-26—One hour's credit.

100k. UNIT COURSES IN GUIDANCE—Each course for two weeks. Each carries one hour's credit.

The following units will be given this summer: Unit 1—Problems of Personality Adjustment, June 16-26; Unit 2—Counselling Methods and Techniques, June 30-July 10; Unit 3—Guidance Problems in the Junior High School, August 4-14.

100L. UNIT COURSE IN EDUCATIONAL VALUES, June 16-26—One hour's credit.



101. PRINCIPLES OF HIGH SCHOOL TEACHING—First half quarter. Two hours.

110. EXTRA-CURRICULAR ACTIVITIES—Either half or full quarter. Two or four hours.

110a. CITIZENSHIP EDUCATION IN THE JUNIOR HIGH SCHOOL—First half quarter. Two hours.

111. PHILOSOPHY OF EDUCATION—Full quarter. Four hours. Required fourth year.

113. ORGANIZATION AND ADMINISTRATION OF THE JUNIOR HIGH SCHOOL—Full quarter. Four hours.

(Primarily for Junior High School Majors. Senior College and graduate students take Ed. 213.)

115. ORGANIZATION AND ADMINISTRATION OF THE ELEMENTARY SCHOOL—Either half or full quarter. Two or four hours.

116. ORGANIZATION AND ADMINISTRATION OF THE SENIOR HIGH SCHOOL—Full quarter. Four hours.

117. PROBLEMS OF SCHOOL DISCIPLINE—Second half quarter. Two hours.  
This course will consider recent investigations of actual concrete situations in which discipline is involved and suggested principles for promoting good discipline in the school.

118. PROBLEMS OF CHARACTER AND MORAL EDUCATION—Second half quarter. Two hours.

This course is planned to give the teacher a practical method of attacking the problem in the classroom. Approval of the present program will be made, investigations in the field canvassed, and specific techniques discussed.

128. COUNTY ADMINISTRATION—Second half quarter. Two hours.

129. CURRENT EDUCATIONAL THOUGHT, Formerly Ed. 229—Either half or full quarter. Two or four hours.

130. VISUAL EDUCATION—First half quarter. Two hours.

134. HISTORY OF EDUCATION IN THE UNITED STATES—Full quarter. Four hours.

140. GUIDANCE PROBLEMS OF DEANS OF GIRLS—First half quarter. Two hours.

142. SCHOOL ADMINISTRATION—Either half or full quarter. Two or four hours.

143. SCHOOL ADMINISTRATION—Either half or full quarter. Two or four hours. (Replaces Ed. 112 and Ed. 120.)

144. SCHOOL PUBLICITY—First half quarter. Two hours.

145. PLATOON SCHOOL—First half quarter. Two hours.

150. FOUNDATIONS OF METHOD—Either half or full quarter. Two or four hours.

209. ADVANCED PROBLEMS OF THE CURRICULUM—Either half or full quarter. Two or four hours.

211. CONCEPTIONS OF MIND IN EDUCATIONAL THEORY—Either half or full quarter. Two or four hours.

213. PROBLEMS OF THE JUNIOR HIGH SCHOOL WITH SPECIAL REFERENCE TO THE CURRICULUM—Either half or full quarter. Two or four hours.

(Given in successive summers as Ed. 213, 214, and 215. Students may earn up to 12 hours.)

218. PROBLEMS OF SECONDARY EDUCATION—Either half or full quarter. Two or four hours.

(Given in successive summers as Ed. 242, 243, and 244. Students may earn up to 12 hours.)

230. HISTORY OF PHILOSOPHY—First half quarter. Two hours.

244. PROBLEMS IN EDUCATIONAL ADMINISTRATION—Either half or full quarter. Two or four hours.

(Given in successive summers as Ed. 242, 243, and 244. Students may earn up to twelve hours.)

258. PROBLEMS OF ELEMENTARY EDUCATION (Spelling, Reading, and Literature)—Either half or full quarter. Two or four hours.

259. PROBLEMS OF ELEMENTARY EDUCATION (Social Science, Problem Method, Socialized Recitation)—Either half or full quarter. Two or four hours.

260. PROBLEMS OF ELEMENTARY EDUCATION (Handwriting, Composition, Arithmetic)—Either half or full quarter. Two or four hours.

**FIRST HALF OF THE SUMMER QUARTER BEGINS JUNE 14, ENDS  
JULY 19—SECOND HALF BEGINS JULY 21, ENDS AUGUST 23**

For Year Book of the College or specific information concerning the work offered in any of the departments, write to the President, George Willard Frasier, Greeley, Colorado.

COLORADO STATE TEACHERS COLLEGE

COURSES AND SPECIAL FEATURES

*for*

*History Teachers*



The American Revolution

History of the Far East

Latin America



SUMMER SCHOOL

~1930~

GREELEY, COLORADO

# Extraordinary Offerings *for* The History Teacher



IN ADDITION to a very full and complete course of study prepared especially with the view to serving the needs of history teachers attending the Summer School, 1930, the History Department of Colorado State Teachers College offers for the first time in the summer quarter, 1930, three outstanding courses based on the latest research and study by the head of the department and two of his department faculty members.

Dr. Oliver Morton Dickerson, head of the department, has spent the past year in the Congressional Library and a number of the libraries in the historic cities of the east, gathering papers and data on the American Revolution. This material is to be used in a course to be given by Dr. Dickerson—History 208—and should prove of extreme interest.

Miss Ora B. Peake, associate professor of history, has recently returned from a year at University of Chicago and a diligent search and study of the History of the Far East, the results of which she will offer in the course designated History 221.

Dr. A. F. Zimmerman, associate professor of history and for the past year acting head of the department, will conduct a course in Latin-American History. Dr. Zimmerman is an acknowledged authority on Latin-American History. He was a resident of South America for several years and for a time was director of Santiago College, at Santiago, Chile.

Added interest to the Latin-American course will be correlated courses offered in the Geography Department by Professor George A. Barker and in the Foreign Language Department by Dr. Margaret Mulroney.

Other courses offered by the History Department in the summer quarter, 1930, are:

1. FOUNDATIONS OF AMERICAN NATIONALITY—Full Quarter. Four hours.

The early years of American history from Colonial beginnings to the Constitutional Convention comprise the scope of this course.

5. 5. EARLY MODERN EUROPE—Full Quarter. Four hours.

The history of Europe from 1500 to 1815 with special emphasis on The Reformation, the rise of nationalism, the French Revolution, and the Napoleonic Era.

10. SOCIAL AND ECONOMIC HISTORY OF THE UNITED STATES—Full Quarter. Four hours.

A survey course of American History, emphasizing the social and economic factors.

117. TEACHING OF HISTORY IN THE JUNIOR AND SENIOR HIGH SCHOOLS—Full Quarter. Four hours.

A course in methods of teaching history and civics.

203. THE REFORMATION—Full Quarter. Four hours.

The conditions in the Medieval Church, the rise of Protestantism and the Counter-Reformation are topics discussed in this course.

224. RESEARCH IN HISTORY—Full Quarter. Four hours.

225. RESEARCH IN HISTORY—Full Quarter. Two hours.

#### POLITICAL SCIENCE

2. STATE GOVERNMENT—Full Quarter. Four hours.

A thorough study of state government, discussing the recent innovations in taxation, state supervision of local government as well as the regular phase of governmental operation.

101. HISTORY OF THE FOREIGN POLICY OF THE UNITED STATES—Full Quarter. Four hours.

A thorough discussion of the main phases of the foreign policy of our government.

#### CORRELATED COURSES

Hist. 216. LATIN AMERICAN HISTORY. Full Quarter. Four Hours.

Geog. 152. PROBLEMS OF SOUTH AMERICAN GEOGRAPHY. Either half or full quarter. Two or four hours.

Spanish 150. SPANISH POETRY. Full Quarter. Two Hours.

**FIRST HALF OF THE SUMMER QUARTER STARTS JUNE 14, ENDS JULY 19—SECOND HALF BEGINS JULY 21, ENDS AUGUST 23**

For detailed information concerning the College or any of the courses offered in the various departments, write for literature. Address the president, George Willard Frasier, Greeley, Colorado.





