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1914-1915

CATALOGUE

OF THE

AGRICULTURAL COLLEGE

OF UTAH

FOR

1914-1915

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With List of Students for 1913-1914

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LOGAN, UTAH

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Published by the College  
July, 1914

COLLEGE BULLETINS

*Issued Quarterly*

*Vol. 14, No. 1, July, 1914*

COMPLETE.

UNIV. OF MO.

JUL 16 1914

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CATALOGUE

OF THE

AGRICULTURAL COLLEGE

OF UTAH

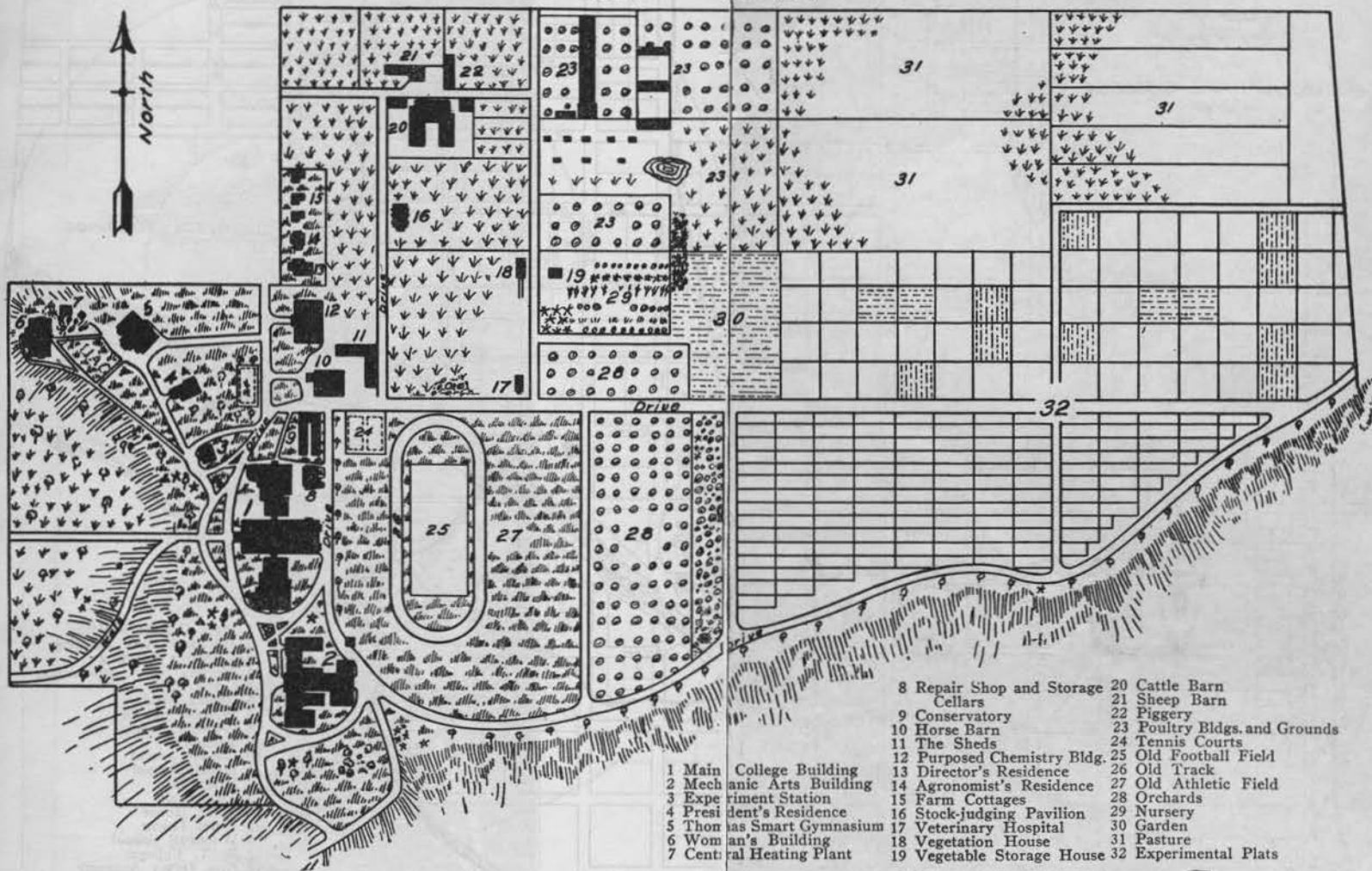
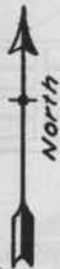
FOR

1914-1915

*Entered as second class matter  
July 8, 1901, at P.O. at Logan, Utah  
under act of July 16, 1894*

# PLAN of COLLEGE CAMPUS

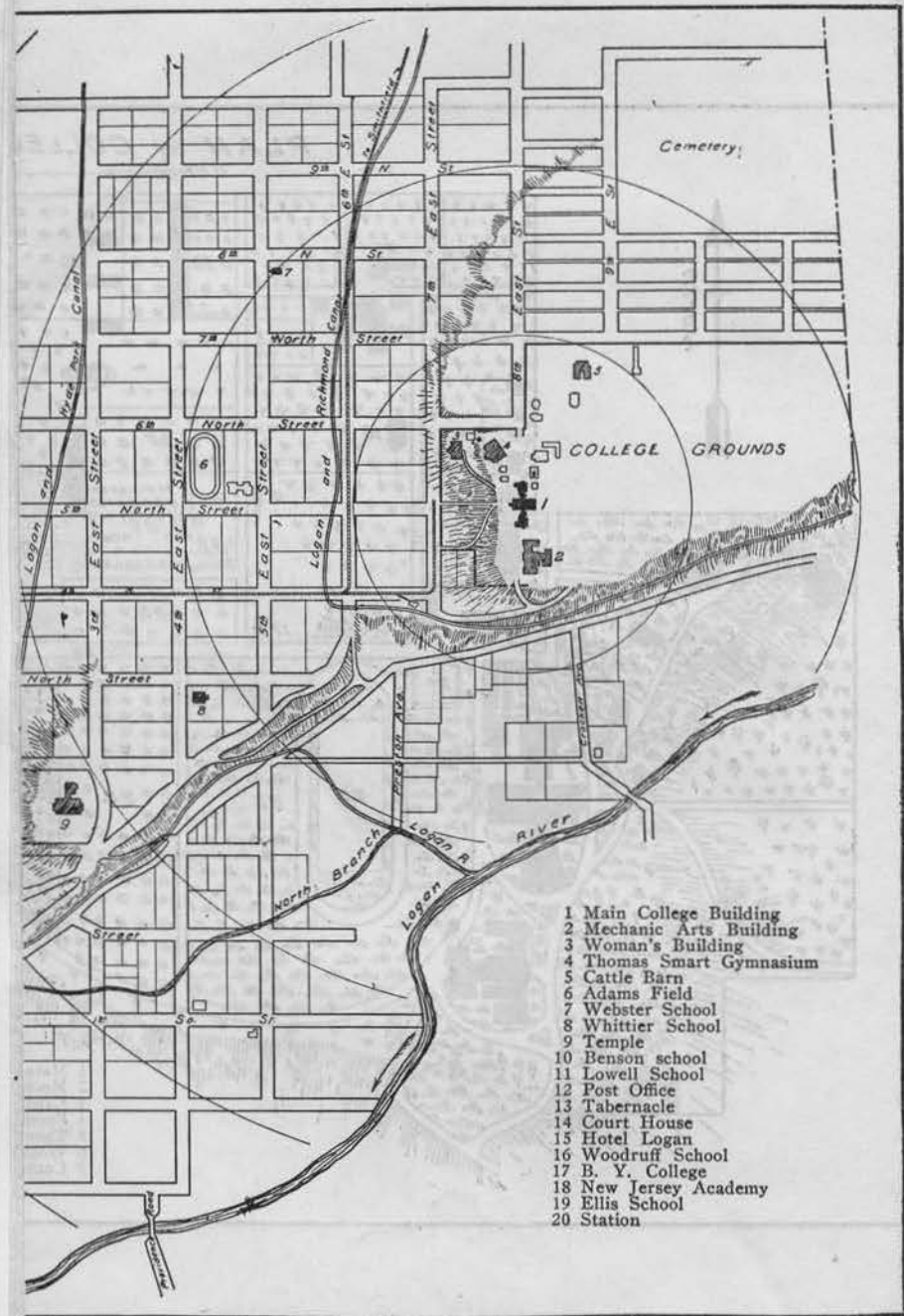
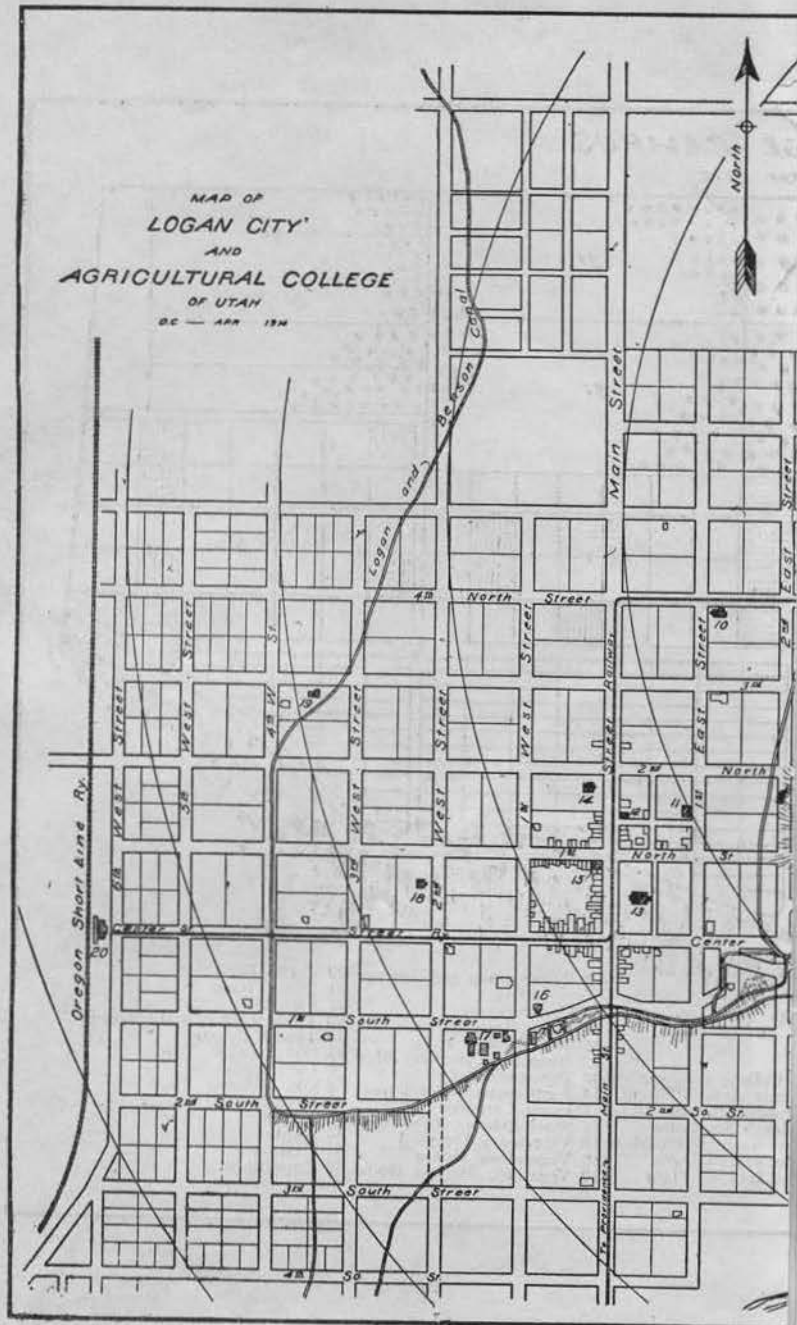
O. Christensen — Apr. 1914



- 1 Main College Building
- 2 Mechanic Arts Building
- 3 Experiment Station
- 4 President's Residence
- 5 Thomas Smart Gymnasium
- 6 Woman's Building
- 7 Central Heating Plant

- 8 Repair Shop and Storage Cellars
- 9 Conservatory
- 10 Horse Barn
- 11 The Sheds
- 12 Purposed Chemistry Bldg.
- 13 Director's Residence
- 14 Agronomist's Residence
- 15 Farm Cottages
- 16 Stock-judging Pavilion
- 17 Veterinary Hospital
- 18 Vegetation House
- 19 Vegetable Storage House
- 20 Cattle Barn
- 21 Sheep Barn
- 22 Piggery
- 23 Poultry Bldgs. and Grounds
- 24 Tennis Courts
- 25 Old Football Field
- 26 Old Track
- 27 Old Athletic Field
- 28 Orchards
- 29 Nursery
- 30 Garden
- 31 Pasture
- 32 Experimental Plats

MAP OF  
LOGAN CITY'  
AND  
AGRICULTURAL COLLEGE  
OF UTAH  
DC - APR 1924

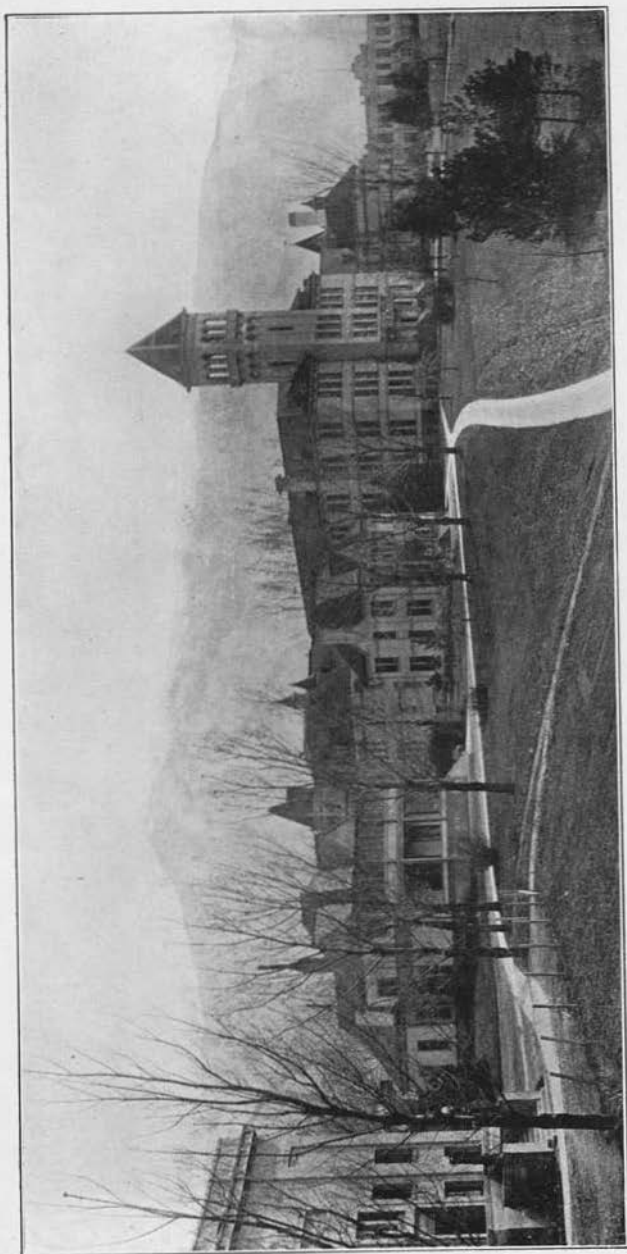


- 1 Main College Building
- 2 Mechanic Arts Building
- 3 Woman's Building
- 4 Thomas Smart Gymnasium
- 5 Cattle Barn
- 6 Adams Field
- 7 Webster School
- 8 Whittier School
- 9 Temple
- 10 Benson school
- 11 Lowell School
- 12 Post Office
- 13 Tabernacle
- 14 Court House
- 15 Hotel Logan
- 16 Woodruff School
- 17 B. Y. College
- 18 New Jersey Academy
- 19 Ellis School
- 20 Station

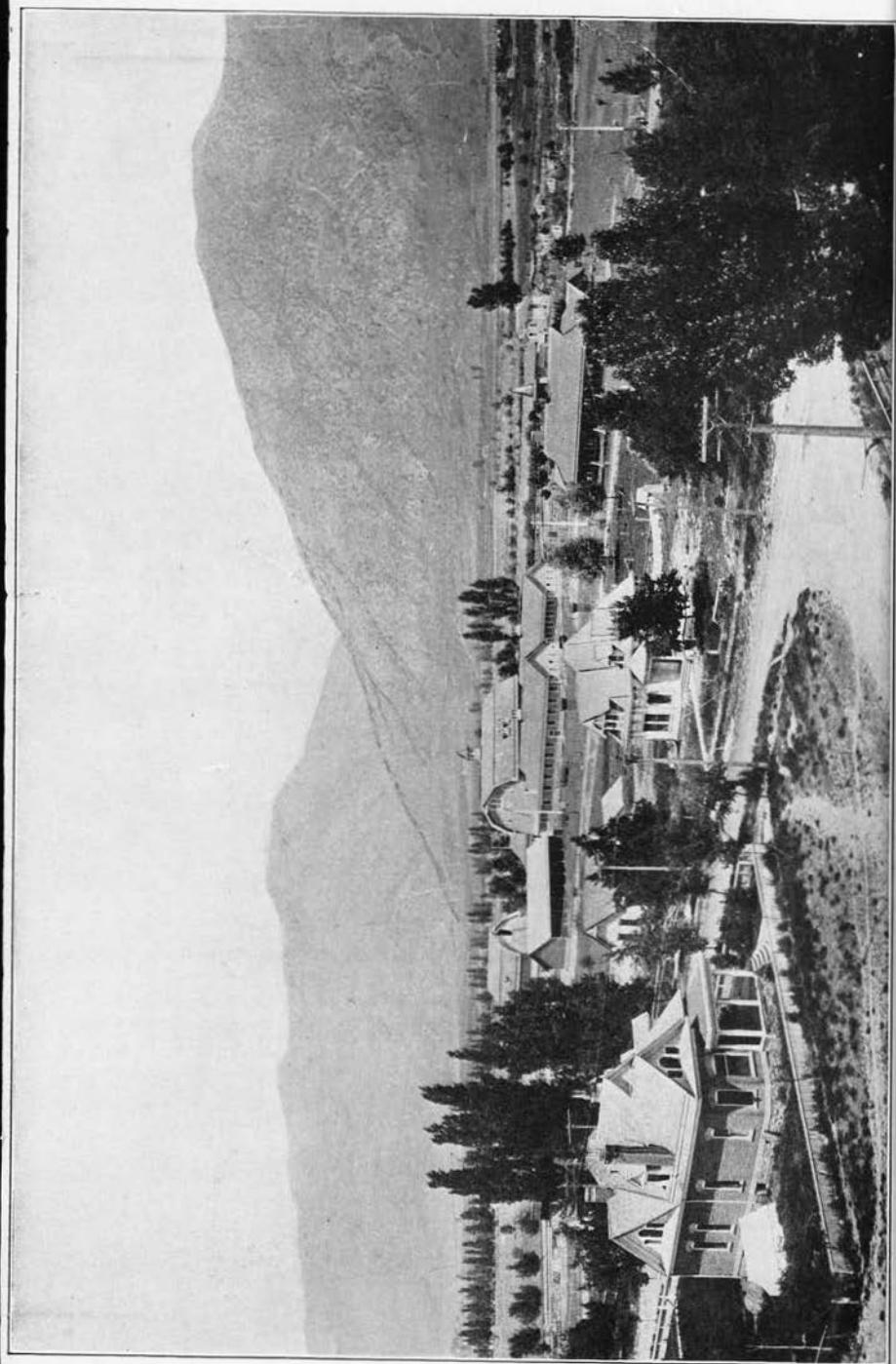
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1914-15 to 1916-17



MAIN BUILDINGS



## 1914

JANUARY							APRIL							JULY							OCTOBER						
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11	12	13	14	15	16	17	12	13	14	15	16	17	18	12	13	14	15	16	17	18	11	12	13	14	15	16	17
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8	9	10	11	12	13	14	3	4	5	6	7	8	9	2	3	4	5	6	7	8	8	9	10	11	12	13	14
15	16	17	18	19	20	21	10	11	12	13	14	15	16	9	10	11	12	13	14	15	15	16	17	18	19	20	21
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MARCH							JUNE							SEPTEMBER							DECEMBER						
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## 1915

JANUARY							APRIL							JULY							OCTOBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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17	18	19	20	21	22	23	18	19	20	21	22	23	24	18	19	20	21	22	23	24	17	18	19	20	21	22	23
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31	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	31	..	..	..	..	..	..
FEBRUARY							MAY							AUGUST							NOVEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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7	8	9	10	11	12	13	2	3	4	5	6	7	8	8	9	10	11	12	13	14	7	8	9	10	11	12	13
14	15	16	17	18	19	20	9	10	11	12	13	14	15	15	16	17	18	19	20	21	14	15	16	17	18	19	20
21	22	23	24	25	26	27	16	17	18	19	20	21	22	22	23	24	25	26	27	28	21	22	23	24	25	26	27
28	..	..	..	..	..	..	23	24	25	26	27	28	29	29	30	31	..	..	..	..	28	29	30	..	..	..	..
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MARCH							JUNE							SEPTEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
..	1	2	3	4	5	6	..	..	1	2	3	4	5	..	..	..	1	2	3	4	..	..	..	1	2	3	4
7	8	9	10	11	12	13	6	7	8	9	10	11	12	5	6	7	8	9	10	11	5	6	7	8	9	10	11
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28	29	30	31	..	..	..	27	28	29	30	..	..	..	26	27	28	29	30	..	..	26	27	28	29	30	31	..
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## CONTENTS

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COLLEGE CALENDAR .....	5
BOARD OF TRUSTEES.....	6
OFFICERS OF ADMINISTRATION AND INSTRUCTION	
College Faculty .....	7
Experiment Station Staff.....	14
Extension Division Staff.....	16
Standing Committees .....	17
Branch of the Agricultural College.....	18
POLICY .....	19
HISTORY .....	20
GOVERNMENT .....	21
ADMISSION AND GRADUATION.....	23
ORGANIZATION	
Departments of Instruction and Administration.....	26
Student Body Organization and Student Clubs.....	27
Student Expenses .....	29
BUILDINGS AND EQUIPMENT .....	31
Equipment .....	35
AGRICULTURAL EXPERIMENT STATION.....	39
EXTENSION DIVISION .....	41
COLLEGE PROPER	
Organization .....	44
School of Agriculture .....	46
School of Home Economics.....	47
School of Agricultural Engineering.....	47
School of Commerce.....	49
School of Mechanic Arts.....	49
School of General Science.....	51
Summer School .....	51

SCHEDULE OF REQUIRED WORK FOR GRADUATION.....	52
PRACTICAL COURSES	
Full Year Courses .....	56
Winter Courses .....	57
SPECIAL STUDENTS .....	58
RELATION BETWEEN U. OF U. AND U. A. C.....	58
DEPARTMENTS OF INSTRUCTION.....	61
RECITATION TABLE .....	61
SCHEDULE OF HOURS .....	138
ALUMNI ASSOCIATION .....	140
TWENTY-FIRST ANNUAL COMMENCEMENT .....	150
HONORS, 1913-1914.....	153
LIST OF STUDENTS, 1913-1914.....	156
SUMMARY OF ATTENDANCE.....	176
INDEX .....	177

# College Calendar, 1914-1915

## FIRST TERM

1914

September 22, Tuesday

Entrance examinations. Registration of former students, and of new students admitted on certificates.

September 23, Wednesday

Classes organized.

November 16, Monday

Agricultural Club Ball.

November 26, Thursday

Thanksgiving Day.

December 7, Monday

Commercial Club Ball.

December 19, Saturday

Christmas recess begins.

1915

January 5, Tuesday

Second term begins.

January 11, Monday

Alumni Ball.

January 25, Monday

College Play.

January 25 to February 13

Exhibition of Arts and Crafts by Utah Artists.

January 30, Saturday

First term ends.

## SECOND TERM

February 2, Tuesday

Second term begins.

February 12, Friday

Lincoln's Birthday.

February 19, Friday

Oratorical Contest for the Hendricks medal.

February 22, Monday

Washington's Birthday.

February 22, Monday

Military Ball.

March 1, Monday

Oratorical Contest for the medal given by The Sons of the American Revolution.

April 5, Monday

Junior Promenade.

April 15, Thursday

Arbor Day.

April 21, Wednesday

"A" Day.

May 10, Monday

May Festival.

May 18, Tuesday

Senior Chapel.

May 25, Tuesday

Conferring of scholarship and other honors.

June 6, Sunday

Baccalaureate Sermon.

June 7, Monday

Summer School begins.

June 7, Monday

Class Day.

June 8, Tuesday

Commencement and Alumni Ball.

## ANNUAL FARMERS' ROUND-UP

U. A. C., LOGAN

Monday, January 18, to Saturday, January 30, 1915

AT RICHFIELD

Monday, January 4, to Saturday, January 16, 1915

AT CEDAR CITY

Monday, February 1, to Saturday, February 13, 1915

## Board of Trustees

LORENZO N. STOHL.....	Salt Lake City
THOMAS SMART .....	Logan
JOHN Q. ADAMS.....	Logan
ELIZABETH C. McCUNE.....	Salt Lake City
J. W. N. WHITECOTTON.....	Provo
JOHN DERN.....	Salt Lake City
JOHN C. SHARP.....	Salt Lake City
ANGUS T. WRIGHT.....	Ogden
J. M. PETERSON.....	Richfield
HAZEL L. DUNFORD.....	Logan
GEORGE T. ODELL.....	Salt Lake City
JOSEPH QUINNEY, JR.....	Logan
DAVID MATTSON, Secretary of State, <i>Ex-officio</i> .....	Salt Lake City

### OFFICERS OF THE BOARD OF TRUSTEES

LORENZO N. STOHL.....	President
ELIZABETH C. McCUNE.....	Vice-President
JOHN L. COBURN.....	Secretary
HYRUM E. CROCKETT.....	Treasurer

### STANDING COMMITTEES OF THE BOARD OF TRUSTEES

<i>Executive Committee,</i>	
Lorenzo N. Stohl, Mrs. Elizabeth C. McCune, Thomas Smart.	
<i>Committee on Agriculture,</i>	
John Q. Adams, John C. Sharp, Angus T. Wright.	
<i>Committee on Mechanic Arts,</i>	
John Dern, J. W. N. Whitecotton, Angus T. Wright.	
<i>Committee on Agricultural Engineering,</i>	
George T. Odell, Thomas Smart, J. M. Peterson.	
<i>Committee on Home Economics,</i>	
Mrs. Elizabeth C. McCune, John Dern, Hazel L. Dunford.	
<i>Committee on Commerce,</i>	
Angus T. Wright, J. W. N. Whitecotton, Mrs. Elizabeth C. McCune.	
<i>Committee on Experiment Station,</i>	
Joseph Quinney, Jr., John Q. Adams, J. M. Peterson.	
<i>Committee on Faculty and Courses of Study,</i>	
J. W. N. Whitecotton, Hazel L. Dunford, Mrs. Elizabeth C. McCune.	
<i>Committee on Livestock,</i>	
John C. Sharp, Thomas Smart, Joseph Quinney, Jr.	
<i>Committee on Extension Work,</i>	
Hazel L. Dunford, John Q. Adams, George T. Odell.	
<i>Committee on Buildings and Grounds,</i>	
Thomas Smart, John Q. Adams, John Dern, Joseph Quinney, Jr.	
<i>Committee on Branch at Cedar City,</i>	
J. M. Peterson, Joseph Quinney, Jr., Hazel L. Dunford.	
<i>Committee on Legislation and Finance,</i>	
David Mattson, John Dern, John C. Sharp, George T. Odell.	
<i>Auditor,</i>	
J. W. N. Whitecotton.	

# Officers of Administration and Instruction\*

---

## The College Faculty

(Arranged in Groups in the Order of Seniority of Appointment)

---

JOHN ANDREAS WIDTSOE, A. M., Ph. D., LL. D.

PRESIDENT

WILLARD SAMUEL LANGTON, A. M.†

*Professor of Mathematics*

ELMER DARWIN BALL, M. Sc., Ph. D.

DIRECTOR, EXPERIMENT STATION AND DIRECTOR, SCHOOL OF  
AGRICULTURE

GEORGE WASHINGTON THATCHER, B. S.

*Professor of Music*

GEORGE THOMAS, A. M., Ph. D.

DIRECTOR, SCHOOL OF COMMERCE; REGISTRAR

*Professor of Economics*

WILLIAM PETERSON, B. S.

*Professor of Geology*

HYRUM JOHN FREDERICK, D. V. M.

*Professor of Veterinary Science*

FRANK RUSSELL ARNOLD, A. M.

*Professor of Modern Languages*

---

\*The College Council consists of the President, the Registrar, (*ex-officio*), all members of the Faculty of the rank of Professor, Associate Professor or Assistant Professor.

†On leave of absence.

## AGRICULTURAL COLLEGE OF UTAH

JAMES CHRISTIAN HOGENSON, M. S. A.  
*Agronomist, Extension Division*

JOHN THOMAS CAINE, B. S.  
AUDITOR

EDWARD GAIGE TITUS, M. S., Sc. D.  
*Professor of Zoology and Entomology*

ROBERT STEWART, Ph. D.  
ASSISTANT DIRECTOR, EXPERIMENT STATION  
*Professor of Chemistry*

JOHN THOMAS CAINE III, M. S. A.  
ASSISTANT DIRECTOR, EXTENSION DIVISION  
*Professor of Animal Husbandry*

FRANKLIN LORENZO WEST, Ph. D.  
DIRECTOR, SCHOOL OF GENERAL SCIENCE  
*Professor of Physics*

CLAYTON TRYON TEETZEL, LL. B.  
*Professor of Physical Education*

LEON D. BATCHELOR, M. S., Ph. D.  
*Professor of Horticulture*

ELMER GEORGE PETERSON, A. M., Ph. D.  
DIRECTOR, EXTENSION DIVISION

FRANKLIN STEWART HARRIS, Ph. D.  
DIRECTOR, SCHOOL OF AGRICULTURAL ENGINEERING  
*Professor of Agronomy*

BLANCHE COOPER, B. S.\*  
*Professor of Home Construction and Sanitation*

JOSEPH EAMES GREAVES, M. S., Ph. D.  
*Professor of Bacteriology and Physiological Chemistry*

CALVIN FLETCHER, B. Pd.  
*Professor of Applied Art*

---

\*On leave of absence.

RAY BENEDICT WEST, C. E.  
*Professor of Agricultural Engineering*

ROBERT JAMES EVANS, Ph. D.  
*State Leader in Farm Management*

GEORGE RICHARD HILL, Ph. D.  
*Professor of Botany*

JAMES HENRY LINFORD, D. Did.  
DIRECTOR OF SUMMER SCHOOL  
*Superintendent, Correspondence Study Department*

ARTHUR HERBERT SAXER, M. S.  
*Professor of Mathematics*

N. ALVIN PEDERSEN, A. M.  
*Professor of English*

WILLIAM E. CARROLL, M. S., Ph. D.  
ASSISTANT DIRECTOR, SCHOOL OF AGRICULTURE  
*Professor of Animal Husbandry*

CHARLES WALTER PORTER, A. M.\*  
DIRECTOR, SCHOOL OF HOME ECONOMICS  
*Professor of Chemistry*

GEORGE B. HENDRICKS, A. M.  
*Professor of Finance and Banking*

PARLEY ERASTUS PETERSON, A. B.  
*Professor of Accounting*

FRANKLIN D. DAINES, A. M.  
*Professor of History*

EUGENE SANTSCHI, JR., B. S., First Lieutenant, U. S. A.  
*Professor of Military Science and Tactics*

JONATHAN SOCKWELL POWELL  
*Associate Professor of Fine Art*

---

\*On leave of absence.

## AGRICULTURAL COLLEGE OF UTAH

RHODA BOWEN COOK, B. S.  
*Assistant Professor of Domestic Art*

ELIZABETH CHURCH SMITH, B. L.  
LIBRARIAN

AUGUST J. HANSEN, B. S.  
*Assistant Professor of Mechanic Arts*

JOHN L. COBURN, B. S.  
SECRETARY OF THE COLLEGE AND PURCHASING AGENT

BYRON ALDER, B. S.  
*Assistant Professor of Poultry Husbandry*

JOHN STEWART, B. S.  
*Assistant Professor of Chemistry*

EDWARD PARLEY PULLEY, B. S.  
*Assistant Professor of Machine Work*

AARON NEWWEY, B. S.  
*Assistant Professor of Forging*

MARY E. JOHNSON, A. B.  
*Assistant Professor of Physical Education for Women*

LeGRANDE HUMPHERYS, B. S.  
*Assistant Professor of Farm Machinery*

GERTRUDE M. McCHEYNE, B. S.  
*Assistant Professor of Home Economics, Extension Division*

GEORGE BALLIF CAINE, A. M.  
*Assistant Professor of Animal Husbandry*

AGNES SAUNDERS, A. B., M. Pd.  
*Assistant Professor of Foods and Dietetics*

SARA HUNTSMAN, B. S.  
*Instructor in English*

CHARLOTTE KYLE, A. M.  
*Instructor in English*



EUGENIE LINNARTZ  
*Instructor in Solfeggio*

W. L. WALKER, B. S.\*  
*Instructor in Mathematics*

C. T. HIRST, M. S.  
*Instructor in Chemistry*

WILLIAM SPICKER  
*Instructor in Orchestra*

NETTIE SLOAN  
*Instructor in Piano*

D. EARLE ROBINSON, B. S.\*  
*Instructor in History*

CORAL KERR, B. S.  
*Instructor in Domestic Arts*

A. C. CARRINGTON  
*President's Secretary*

JOSEPH D. HOWELL  
*Instructor in Stenography and Typewriting*

JOSEPH PRESTON WELCH, B. S.  
*Instructor in Farm Management*

LORIN A. MERRILL, B. S.  
*Instructor in Farm Management*

ARCHIE D. EGBERT, D. V. M.  
*Foreman in Poultry Husbandry*

HOWARD JOHN MAUGHAN, B. S.  
*Fellow in Agronomy*

BERT LORIN RICHARDS, B. S.  
*Instructor in Botany*

---

\*On leave of absence.

## AGRICULTURAL COLLEGE OF UTAH

GEORGE STEWART, B. S.  
*Instructor in Agronomy*

HERMAN WILFORD STUCKI, B. S.  
*Farm Foreman*

ROBERT H. STEWART, B. S.  
*Instructor in Farm Management*

LESLIE A. SMITH, B. S.  
*Instructor in Bacteriology*

HOWARD SCHWEITZER, B. S.  
*Instructor in Horticulture*

ELIZABETH UNDERWOOD  
*Instructor in Piano*

ELLEN AGREN, B. S.  
*Instructor in Foods and Dietetics*

W. E. BROOKE, Ph. B.  
*Instructor in Economics*

H. R. HAGAN, B. S.  
*Instructor in Entomology*

M. L. HARRIS, B. S.  
*Instructor in Farm Management*

GRONWAY R. PARRY, B. S.  
*Instructor in Zoology*

JOHN A. SHARP, B. S.  
*Fellow in Chemistry*

PERCY N. SHELLEY, B. S.  
*Instructor in Chemistry*

WILBER E. THAIN, B. S.  
*Instructor in Accounting*

SAMUEL E. CLARK  
*Instructor in Harmony*

A. L. COOK  
*Fellow in Botany*

HATTIE SMITH  
*Assistant in Library*

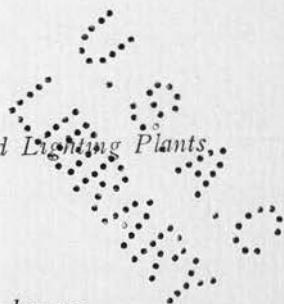
S. L. BINGHAM  
*Instructor in Dairying*

DAN A. SWENSON  
*Assistant in Woodwork*

CHARLES BATT  
*Superintendent of Water, Heat, Sewerage, and Lighting Plants.*

RASMUS OLUF LARSEN  
*Superintendent of Buildings*

EMIL HANSEN  
*Superintendent of Grounds and Greenhouses*



133089

## Experiment Station Staff

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E. D. BALL, Ph. D.  
*Director and Entomologist*

H. J. FREDERICK, D. V. M.  
*Veterinarian*

ROBERT STEWART, Ph. D.  
*Assistant Director and Chemist*

E. G. TITUS, Sc. D.  
*Entomologist*

L. D. BATCHELOR, Ph. D.  
*Horticulturist*

F. S. HARRIS, Ph. D.  
*Agronomist*

F. L. WEST, Ph. D.  
*Meteorologist*

J. E. GREAVES, Ph. D.  
*Bacteriologist*

WM. PETERSON, B. S.  
*Geologist*

W. E. CARROLL, Ph. D.  
*Animal Husbandman*

BYRON ALDER, B. S.  
*Poultryman*

G. R. HILL, JR., Ph. D.  
*Plant Pathologist*

JOHN STEWART, B. S.  
*Associate Chemist*

C. T. HIRST, M. S.  
*Assistant Chemist*

H. R. HAGAN, B. S.  
*Assistant Entomologist*

A. D. ELLISON, B. S.  
*Superintendent, Nephi Farm*

ARCHIE EGBERT, D. V. M.  
*Assistant Poultryman*

H. W. STUCKI, B. S.  
*Assistant Agronomist*

H. B. SCHWEITZER, B. S.  
*Assistant Horticulturist*

H. J. MAUGHAN, B. S.  
*Assistant Agronomist*

LESLIE A. SMITH, B. S.  
*Assistant Bacteriologist*

B. L. RICHARDS, B. S.  
*Assistant Plant Pathologist*

A. B. BALLANTYNE, B. S.  
*Superintendent, Southern Experiment Farm*

AARON H. BRACKEN, B. S.  
*Foreman, Nephi Farm*

VIOLET M. GREENHALGH, B. S.  
*Clerk*

## Extension Division Staff

John A. Widtsoe, A.M., Ph.D., LL.D.....	President of the College
E. G. Peterson, A.M., Ph.D.....	Director
John T. Caine III, M.S.A.....	Farmers' Institutes and Schools
J. C. Hogenson, M.S.A.      }	High School and Boys' and Girls' Clubs
Carl. L. Anderson,            }	
R. J. Evans, Ph. D.....	Farm and Home Demonstration
James H. Linford, D.Did.....	Correspondence Studies
Gertrude M. McCheyne, B.S.	Social and Home Economic Associations

### STATE-WIDE DEMONSTRATORS

John T. Caine III, M.S.A.....	Animal Husbandry
R. J. Evans, Ph.D.....	Seed Breeding and General Agronomy
Gertrude M. McCheyne, B.S.....	Home Economics
L. M. Winsor, B.S.....	Irrigation and Drainage
Ben R. Eldredge.....	Dairying
James W. Paxman.....	Dry Farming

### COUNTY DEMONSTRATORS

#### FARM DEMONSTRATORS

J. P. Welch, B. S.....	Millard County
R. H. Stewart, B.S.....	Carbon-Emery Counties
Lorin A. Merrill, B.S.....	Sevier County
M. L. Harris, B.S.....	Uintah Basin
David Sharp, Jr., B.S.....	Iron County
Heber J. Webb, B.S.....	Salt Lake County
_____	Beaver County
_____	Utah County

#### HOME DEMONSTRATORS

_____	_____
_____	_____

### FROM FACULTY OF INTERIOR INSTRUCTION

F. S. Harris, Ph.D. ....	Agronomy
George Thomas, A.M., Ph.D.....	Agricultural Economics
R. B. West, C.E.....	Agricultural Engineering
E. D. Ball, M.Sc., Ph.D. ....	Entomology
E. G. Titus, M.S., Sc.D.....	Home Economics
L. D. Batchelor, M.S., Ph.D.....	Horticulture
John A. Widtsoe, A.M., Ph.D., LL.D.....	Irrigation
Byron Alder, B.S.....	Poultry Husbandry
H. J. Frederick, D.V.M.....	Veterinary Science

## Standing Committees

1914-1915

The President of the College is *ex officio* a member of each standing committee.

1. *High School*.—Professors Wm. Peterson, P. E. Peterson, Miss Kerr.
2. *Graduation*.—Professors Arnold, Batchelor, Saxer, R. B. West, Cook.
3. *College Publications*.—Professors N. A. Pedersen, Arnold, Daines, Miss Huntsman, Miss Kyle.
4. *Attendance and Scholarship*.—Professors Thomas, Wm. Peterson, R. B. West, Santschi, Miss Kyle.
5. *Student Affairs*.—Professors Frederick, Fletcher, Linford, Powell, Miss Smith, Miss Kyle, Miss Kerr, Mr. Stewart.
6. *Athletics*.—Professors Teetzel, Santschi, Coburn, Miss Johnson.
7. *Publicity*.—Professors Hill, Alder, Miss Huntsman, Miss Saunders, Mr. Richards.
8. *Exhibits*.—Professors Titus, Fletcher, R. B. West, Hansen, Cook, Alder, Pulley.
9. *Debating*.—Professors Hendricks, Thomas, Titus, Pedersen, Daines, Mr. Brooke.
10. *Entrance Examinations*.—Professors Greaves, Humpherys, Miss Agreen.
11. *Student Employment*.—Professors George B. Caine, Saxer Powell, Humpherys, Newey, Johnson.
12. *Student Body Organization*.—Professors Thomas, Titus, Carroll.
13. *Graduate Employment*.—Mr. Carrington, Professors Ball, Thomas, Harris, F. L. West, Porter.

The Branch of the Agricultural College of Utah  
at Cedar City

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JOHN ANDREAS WIDTSOE, A. M., Ph. D., LL. D.  
PRESIDENT

ROY F. HOMER, B. S.  
PRINCIPAL

MYRTLE DECKER, A. B.  
*Instructor in English*

ROBERT S. GARDNER, B. S.  
*Instructor in Mathematics and Shopwork*

PARLEY DALLEY, B. S.  
*Instructor in Physics and Chemistry*

ALBERT N. TOLLESTRUP  
*Instructor in Music*

ROBERT S. WRIGLEY, B. S.  
*Instructor in Agronomy and Horticulture*

AMY LEIGH, B. S.\*  
*Instructor in Domestic Arts*

RANDALL JONES, B. M. T.  
*Instructor in Woodwork*

RUFUS LEIGH, D. D. S.  
*Instructor in Biological Science*

DAVID SHARP, Jr., B. S.  
*Instructor in Animal Husbandry*

SARAH HUTTEBALLE  
*Instructor in Domestic Art*

GILBERT L. JANSON, B. S.  
*Instructor in Commerce*

GEORGE H. LUNT, A. B.  
*Instructor in Mathematics and History*

JOHN S. CHRISTENSEN, B. S.  
*Instructor in Physical Education*

EFFIE WARNICK, B. S.  
*Instructor in Domestic Science*

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\*On leave of absence.

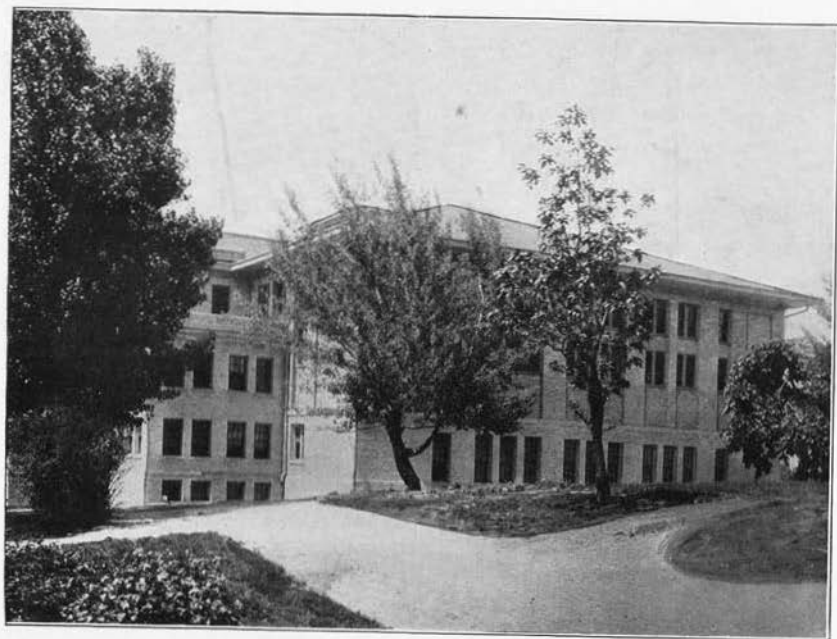




WOMAN'S BUILDING.



MECHANIC ARTS BUILDING.



THE THOMAS SMART GYMNASIUM

# AGRICULTURAL COLLEGE OF UTAH

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## POLICY

The Agricultural College of Utah provides, in accordance with the spirit of the law under which it is organized, a liberal, thorough, and practical education. The two extremes in education, empiricism and the purely theoretical, are avoided, for the practical is based upon, and united with, the thoroughly scientific. In addition to the practical work of the different courses, students are thoroughly trained in the sciences, mathematics, history, English, art, modern languages, and other related subjects. While the importance of practical training is emphasized, the disciplinary value of education is kept constantly in view. The object is to inculcate habits of industry and thrift, of accuracy and reliability, and to foster all that makes for right living, good citizenship, and high efficiency.

Under this general policy, the special purpose of the Agricultural College of Utah is to be of service in the upbuilding of the State and the great West to which it belongs. The instruction in agriculture and agricultural engineering, therefore, deals with the special problems relating to the conquest of the great areas of unoccupied lands,—the proper use of the water supply, and the kinds of crop or live stock which in Utah may be made most profitable; that in mechanic arts, points out the most promising trades and teaches them so as to meet the needs of the State; that in commerce studies the undeveloped resources and the present commercial conditions of the State, and investigates the principles and methods to be applied in the commercial growth of Utah; that in home economics, house-keeping, teaches the women right

living, and economic independence from the point of view of prevailing Utah conditions.

The dominating spirit of the policy of the Agricultural College of Utah is to make the common work of the world—the work that most men and women must do—both profitable and pleasant. The motto of the College is, Labor is Life.

## HISTORY

The Agricultural College of Utah was founded March 8th, 1888, when the Legislative Assembly accepted the terms of the national law passed by Congress on July 2nd, 1862. Under this Act of Congress, and the Enabling Act providing for the admission of Utah to the Union, 200,000 acres of land were granted to the State from the sale of which there should be established a perpetual fund, the interest to be used in maintaining the College.

Under the Hatch Act, approved in 1887, the State receives \$15,000 annually for the Experiment Station. Under the Adams Act of 1906, the State receives an additional \$15,000 annually for research work by the Experiment Station. Under the Morrill Act of 1890, amended by the Nelson Act of 1907, the State receives \$50,000 annually for instruction at the Agricultural College. Under the Lever Act, the State receives, in 1914, about \$13,000 which will increase for seven years, for agricultural extension work to be done by the Agricultural College.

These federal appropriations, together with the annual income from the land-grant fund, represent the income received from the general government. Since most of these funds must be used in accordance with the law for specific purposes, the institution is dependent on State appropriations for funds with which to provide additional instruction and for general maintenance. These needs have been generously met in the past by the Legislative Assemblies of the State. In 1888 the sum of \$25,000 was appropriated for buildings, and the county of Cache and the city of Logan gave one hundred acres of land on which to build the College. Since

that time the State has, from time to time, appropriated sufficient funds to erect and maintain all the buildings described in a later section, besides providing largely for instruction, experimentation, and extension work.

By a recent legislative action, the College receives annually 28.34 *per cent.* of 28 *per cent.* of the total tax revenue of the State, after deducting the revenue from 3.5 mills of the total State valuation, set aside for the support of the elementary and the high schools. The State, moreover, provides \$10,000 annually for extension purposes, \$15,000 for experimental work, and an increasing fund for farm and home demonstrations.

In September, 1890, the institution was first opened for the admission of students. Degree courses were offered in agriculture, domestic arts, civil engineering, mechanic arts, and commerce; a preparatory course and short courses in agriculture and engineering were also given. Since that time many improvements have been made in the courses: some have been abandoned; several special, practical, year and winter courses in commerce, mechanic arts, and home economics have been added; the standard of the college work has been raised. In 1903, the Board of Trustees established the School of Agriculture, the School of Home Economics, the School of Mechanic Arts, the School of Commerce, and the School of General Science, and in 1911 the School of Agricultural Engineering. The high school department of the College is being gradually eliminated. In 1914-1915 only the third and fourth years of high school work will be given, and in 1915-1916 no high school work will be given, except as provided for in the short practical course discussed on page 55.

In 1913, the Branch Normal School at Cedar City was made a branch of the Agricultural College and is so maintained.

### GOVERNMENT

The government of the College is vested primarily in the Board of Trustees and, under their control, the four other administrative bodies,—the Directors' Council, the College Council, the

College Faculty, and the Staff of the Experiment Station. These, in their several capacities, determine the policy and maintain the efficiency of the institution.

THE BOARD OF TRUSTEES consists of thirteen members. Twelve are appointed by the Governor with the approval of the State Senate; the thirteenth is the Secretary of State who is *ex officio* a member. This Board assumes the legal responsibility of the institution, cares for its general interests, and directs its course by the enactment of all necessary by-laws and regulations. Vested in it is the power to establish professorships, to employ the instructing force and other officers of the College, and to formulate the general policy of the institution.

Between sessions, the power of the trustees rests with an executive committee, whose actions are referred to the Board for approval. In addition, there are committees, largely advisory, that deal with the general interests of the College.

THE DIRECTORS' COUNCIL consists of the President, the Directors of the various schools,—Agriculture, Home Economics, Agricultural Engineering, Commerce, Mechanic Arts, General Science, and Summer School—the Director of the Experiment Station, and the Director of the Extension Division. This body has immediate supervision of the instruction and discipline in all the various schools. It constitutes a permanent executive and administrative committee of the College Council and Faculty.

THE COLLEGE COUNCIL consists of the President of the College, the registrar, the professors, the associate professors, the assistant professors, and the librarian. All important questions of discipline and policy are decided by this body.

THE COLLEGE FACULTY includes the President, the professors, the associate professors, the assistant professors, the librarian, the instructors, and the assistants. As an administrative body it is concerned with the ordinary questions of methods and discipline and with various other matters pertaining to the general welfare of the College. Through its standing committees it is in intimate

contact with the student body and with the life and interests of the college community.

THE STANDING COMMITTEES have delegated to them the immediate direction of all the phases of college life. The conduct of the student in his college home and his regularity in performing college duties; the publications of the College and of the students; the interests of the students on the athletic field, in the amusement halls, and in their various organizations,— all these things are within the province of appropriate committees.

THE EXPERIMENT STATION STAFF consists of the President of the College, the Director of the Station, and the chiefs, with their assistants, of the departments of the station. This body is employed in the investigation of problems peculiar to agriculture in this part of the country, for the purpose of improving conditions and results. It is further responsible for the circulation, through private correspondence and regular bulletins, of such information as is of practical value to the farming communities.

THE STUDENTS. The College is maintained at public expense for the public good. The students, therefore, are under a peculiar obligation to perform faithfully all their duties to the State, the institution, and the community. Most important of these is an active interest in all that concerns the moral and intellectual welfare of the College. Regularity of attendance, faithful attention to studies, and exemplary personal conduct are insisted upon at all times, and the administrative bodies of the College are fully empowered to secure these results.

## ADMISSION AND GRADUATION

ADMISSION. Students entering the college courses must show credits for four years' work in some reputable high school or present fourteen units of approved high school studies, subject to examination, for entrance to the freshman class. These may be selected from any subjects for which credit toward graduation is

given by an approved high school; but, before graduation from the College, the following high school credits must be secured:

English .....	3 units
History .....	1 unit
Mathematics .....	2 units
Science .....	3 units
	—
Total.....	9 units

A unit is equivalent to five hours' work a week for one year.

Candidates for admission to advanced standing may be required to pass satisfactory examination in all the work of the preceding years, or to present satisfactory evidence that the work offered for admission is equivalent to the work for which they wish to substitute it.

*Admission to High School.* The high school department is gradually being eliminated. The first and second years of high school work will not be given in 1914-1915. Students entering the third year must show credits for two years of high school work.

*Admission to the Practical Courses.* Persons eighteen years or over, and those under eighteen who have had two years of high school work, are admitted without examination to the practical courses.

*Special Students.* Persons of mature years who desire to pursue a special line of study, are admitted as special students, provided they give evidence of ability to do the work desired. Special students may be graduated in any of the courses, whenever they complete the required work.

*Registration.* All students register at the beginning of the collegiate year for the work of the whole year. Changes in registration, and credit for work for which the student is not registered are allowed only by special permission of the College Council.



All regular students are classified as third and fourth year students in the High School or as freshmen, sophomore, junior, senior, or special students, in any of the courses leading to a degree

**GRADUATION.** The degree of Bachelor of Science, in Agriculture, Home Economics, Agricultural Engineering, Commerce, Mechanic Arts, or General Science is conferred upon those who complete the regular four-year course in any of those schools. To obtain a degree from 1914 to 1917, a student must have presented eleven units of high school work and accomplished 140 semester hours of college work. After 1917 he must show fourteen high school units and 120 college hours if he wishes a degree in any course. (See Schedule of Courses.)

Besides this the student must have been in attendance at least one school year preceding the conferring of the degree. He must have completed all the prescribed and the elective work in the four-year college schedules. He must have no grade lower than D in any subject used for graduation. Four fifths of his term grades must be C or better. He must have discharged all College fees. He must be recommended for graduation by his school faculty and receive the favorable vote of two thirds of the members of the College Council.

## ORGANIZATION

The College is essentially a teaching institution. The instructional force and equipment are organized into departments, of coordinate authority, each of which represents a somewhat definite field of knowledge. All officers of instruction belong to one or another of these departments. One professor is designated head of each department, and he carries the administrative responsibility of the department. At present the College maintains the following departments:

## DEPARTMENTS OF INSTRUCTION AND ADMINISTRATION

- |                                     |                                      |
|-------------------------------------|--------------------------------------|
| 1. Accounting and Business Practice | 16. Home Construction and Sanitation |
| 2. Agricultural Engineering         | 17. Horticulture                     |
| 3. Agronomy                         | 18. Library Work                     |
| 4. Animal Husbandry                 | 19. Mathematics                      |
| 5. Art                              | 20. Mechanic Arts                    |
| 6. Bacteriology and Physiology      | 21. Military Science and Tactics     |
| 7. Botany                           | 22. Modern Languages and Latin       |
| 8. Chemistry                        | 23. Music                            |
| 9. Domestic Art                     | 24. Physical Education               |
| 10. Economics and Sociology         | 25. Physics and Farm Machinery       |
| 11. English                         | 26. Political Science                |
| 12. Finance and Banking             | 27. Veterinary Science               |
| 13. Foods and Dietetics             | 28. Zoology and Entomology           |
| 14. Geology and Roads               |                                      |
| 15. History                         |                                      |

The work of the College, as made possible by the above departments, falls into three distinct divisions: first, the experimental division, having for its object the discovery of new truth or the new application of established truth, for the advancement of the business of life; second, the College proper, giving instruction, especially to young people, on the home campus of the College; third, the Extension division, which carries instruction to the people who can not come to the College campus.

To accomplish this work the following administrative divisions exist, each of which draws upon the departments for its instructional or experimental force:

## I. Experimentation

1. The Agricultural Experiment Station

- II. Instruction on the College campus,—the College Proper
  2. The School of Agriculture
  3. The School of Home Economics
  4. The School of Agricultural Engineering and Mechanic Arts
  5. The School of Commerce
  6. The School of General Science
  7. The Summer School
- III. Instruction beyond the College campus
  8. The Extension Division

#### THE STUDENT BODY ORGANIZATION AND STUDENT CLUBS

The Student Body Organization embraces all the students of the institution. Its prime object is to foster a proper spirit of college loyalty and to give the students practice in managing public affairs. It also secures dispatch and efficiency, as well as uniformity, in the administration of all matters pertaining to the entire student body and induces all students to participate in college activities. The organization provides each member with a maximum of proper athletic, theatrical, and social recreation at a minimum expense; viz., \$5 annually. This society has control, under faculty direction, of the following student activities:

1. *Athletics*, including all inter-class and intercollegiate contests in football, baseball, basketball, and track events. The Agricultural College is now a member of the Colorado Conference, a fact which will insure an interesting athletic programme.

2. *Musicals*, including all public performances of the Band, the Orchestra, Glee Club, Choir, String Quartette, and Mandolin and Guitar Club. During recent years the following operas have been presented: *Babette*, *Marriage by Lantern Light*, *The Geisha*, *When Johnny Comes Marching Home*, *The Mikado*.

3. *Theatricals*. Once or twice each season some dramatic performance is given. In the past, *As You Like It*, *A Midsummer Night's Dream*, *She Stoops to Conquer*, *Pygmalion* and *Gal-*

*atea, The Climbers, The College Widow, The Amazons, Sweet Kitty Bellairs, The Rivals, The Rising of the Moon, Spreading the News, The Pot of Broth,* and several minor productions, have been presented.

4. *Debating and Public Speaking.* Triangular debating arrangements have been made whereby the Agricultural College debates the University of Utah and the Brigham Young University every year on the same question. Those who win places on these teams receive a gold locket and are admitted to membership in the Agora, an honorary debating fraternity. Debates are also held by the different classes. The winners receive gold medals.

The annual oratorical contests for the Hendricks medal and that given by The Sons of the American Revolution maintain among the students an active interest in extemporaneous public speaking.

5. *Student Publications.* The students of the College, under the direction of the faculty of English, publish a weekly school paper, *Student Life*, which contains timely editorials, news items, announcements, reports, and forecasts of College activities.

The junior class publishes the College year book, named *The Buzzer*.

6. *Lyceum Course.* Each year the Student Body presents from four to six lecturers, readers, or musicians, of national or local repute. These entertainments are free to members.

*Clubs.* Not affiliated with the Student Body organization, but standing largely for the interests of the various schools, are the following clubs:

*The Agricultural Club*, which aims to promote interest in scientific agriculture. The club is effecting similar organizations in the high schools of the State. Special lectures, often illustrated, are given at intervals throughout the season.

*The Agricultural Engineering Society* which aims to stimulate the interest of students in the more practical side of the work embraced by the engineering courses. Men of repute are invited to

discuss questions before the society. It also aims to promote the interest of the students socially.

*The Home Economics Club*, which is composed of the students in domestic science and arts. The object of the club is to keep students in touch with movements in their field and to promote interest in home economics work. Many home economic societies in the high schools of the State are affiliated with this organization.

*The Commercial Club*, working to promote the interests of the Commercial School, to popularize the commercial courses, and to consider matters of interest not encountered in routine work. The club maintains an annual lecture course, given by prominent men throughout the State, on topics of special interest to the business man. All commercial students of college grade are eligible to membership.

*The Mechanic Arts Association*, designed to promote the social and intellectual interests of its members. All the teachers and all the regularly enrolled students of mechanic arts are eligible to membership. Monthly meetings are held throughout the year, at some of which lectures are given by specialists.

*Gamma Sigma Delta*, a chapter of the national honorary fraternity for students in agriculture. Members are chosen for scholarship, being selected from among the upper two fifths of the junior and the senior classes in agriculture.

*The Agora*, a fraternal organization open to men who have won places on the intercollegiate debating teams. Its purpose is to foster debating in the College and to keep alive among the old debaters an interest in such contests.

A number of fraternities, sororities, and other social organizations are also in successful operation.

#### STUDENT EXPENSES

Tuition is free. Utah students pay an annual entrance fee of \$5; students registering from other states pay \$25. The privileges

of the library and museums are free. In most of the laboratory and shop courses students are charged an incidental fee of \$1 a credit hour. The total amount varies in each case in accordance with the courses taken, ranging from \$2 to \$13 a year.

Every regular student must pay a Student Body fee of \$5 for which a ticket is issued admitting him to all the activities controlled by the Student Body Organization: athletic events—football, basketball, baseball, and track—dramatic and musical entertainments, socials, lectures, etc. This system has been found to be a great saving to the students and a most excellent means of fostering proper interest in student activities.

*All male students, during three years of their course, are required to take military drill and must purchase a military uniform.* To this rule there is *no exception*, unless physical disability or a very unusual reason exists. This uniform is obtained through the Secretary of the College at actual cost, about \$15, and has been found more serviceable and far more attractive in appearance than civilian clothes of the same price. With proper care one uniform will last two years.

All students in domestic science must provide themselves with two white aprons, two pairs of white half-sleeves, and two holders, six inches square.

All girls taking physical culture must provide themselves with a gymnasium suit and gymnasium shoes. These may be procured at the College. Cost, about \$4.

The fee charged for a diploma of graduation is \$5.

Students are held responsible for any injury done by them to the College property.

Good board and rooms can be obtained in private homes for \$3.50 to \$4.50 a week. By renting rooms and boarding themselves, students are able to reduce considerably the cost of room and board. The College maintains a cafeteria where, for a few cents, students may get a hot luncheon daily.

The cost of necessary books and stationery ranges from \$10 to \$15 a year.

## BUILDINGS AND EQUIPMENT

The Agricultural College of Utah is in Logan, the county seat of Cache county, one of the most prosperous agricultural counties in the State. The city has a population, thrifty and progressive, of about 8,000; it is free from vice, quiet, orderly, clean, and generally attractive, with neat homes, good substantial public-buildings, electric lights, a sewer, and a water system. Cement pavements and an excellent street-car line extend from the station to the College.

The College is beautifully situated on a broad hill overlooking the city, one mile east of Main street, and commands a view of the entire valley and surrounding mountain ranges. The beauty of the location is perhaps unsurpassed by that of any other college. A few hundred yards to the south is the Logan river. A mile to the east is a magnificent mountain range and a picturesque canyon. In other directions are towns and farms covering the green surface of Cache valley, and distinctly visible through the clear atmosphere. The valley is a fertile, slightly uneven plain, 4,500 feet above sea level, about twelve by sixty miles in dimensions, almost entirely under cultivation and completely surrounded by the Wasatch mountains. It is one of the most attractive and healthful valleys in the West.

The College now has nearly thirty smaller and larger buildings, all modern, all well lighted, and well heated by a central heating plant, and all carefully planned to meet the purpose for which each was intended.

THE MAIN BUILDING, of brick and stone, is 360 feet long, 200 feet deep in the central part, and four stories high. It contains the large auditorium, seating about 1,500; the administrative offices; the library; and many class rooms and laboratories.

THE WOMAN'S BUILDING is a four-story brick building fifty by eighty feet, situated three minutes' distance from the Main building, on the north-west corner of the campus. Cement walks

connect it with the other school buildings and with Main street. It is one of the largest and best equipped structures devoted entirely to domestic science and arts in the inter-mountain region. It has automatic elevator service from the locker room and laundry in the basement to the spacious rooms on the fourth floor. A large lecture room used for class work and public lectures, a small class room and a kitchen-laboratory equipped with gas for individual work, a library, and an office are on the first floor. The second kitchen-laboratory, equipped with electricity for individual work, a small kitchen, a dining room, a chemical and a research laboratory are on the second floor. The third floor, devoted entirely to the domestic arts, contains the office, millinery room, sewing, dressmaking, and fitting rooms with complete equipment. The fourth floor contains a rest room, class room, and a large room used for museum material.

THE THOMAS SMART GYMNASIUM, one of the finest and most complete college gymnasium in the Rocky mountain region, houses the department of physical education. It contains a main exercise hall, 114 by 70 feet, which is well lighted and ventilated. The steel work overhead gives attachment for the hanging apparatus, and the equipment is so arranged as to be quickly put in place or hoisted out of the way, leaving a clear floor space for large games or dances. Ten feet above the main floor is a running-track, a handball court, and a wrestling and boxing room.

The women's gymnasium occupies the south end of the building and has a floor space of 70 by 40 feet. On the north end of the building is a swimming pool, 60 by 24 feet, supplied with filtered water, affording superb opportunity for swimming and aquatic sports. In the center of the building are two large dressing rooms equipped with steel lockers, shower and tub baths, a steam room, and all the conveniences found in modern gymnasiums.

ATHLETIC FIELDS. An old athletic field and tennis courts, situated close to the gymnasium, afford opportunities for all forms



of athletic sports. The Adams field is the main athletic field, located one fourth mile west of the campus.

THE EXPERIMENT STATION BUILDING, a two-story brick structure 45 feet long and 35 feet wide, contains the offices of the station staff, a reading room, and a dark room for photographic work.

THE MECHANIC ARTS BUILDING is a two-story brick structure. It has a floor area of 40,000 square feet, containing the wood-working department, machine shop, forging rooms, foundry, carriage building rooms, mechanic arts museum, drafting rooms, blue-printing room, room for painting and staining, and class rooms.

This building is also the home of the departments of agricultural engineering and farm machinery, and contains laboratories specially adapted to this class of work. Its equipment consists of several gasoline engines of from two to fifteen horse-power, a horizontal steam engine of six horse-power, and a large collection of agricultural machinery. The testing laboratory contains a hundred-thousand-pounds testing machine and also a cement testing machine, both made by Riehle Brothers. The laboratory further contains transits, levels, tapes, leveling rods, range poles, and other apparatus used by students in surveying, irrigation, drainage, and road construction. The drawing rooms and shops of the Mechanic Arts department, with their complete equipment, are available for students in agricultural engineering.

The machine shop is equipped with a 15 H. P. motor, a 24 in. planer, two crank shapers, two speed lathes, six 14 in. engine lathes, a 36 in. radial drill, two universal milling machines, a universal tool and cutter grinder, emery wheels, power hack-saw, twenty machinist's vises with work bench, tool cabinet, tool room, case containing a supply of small tools for general use, and a variety of other equipment.

The drafting room contains thirty-five drawing tables, boards, model co-ordinate planes, filing case, and blue-printing facilities.

The forge shop contains thirty-two down-draft forges, each

equipped with a full set of tools, a drill press, a power hammer, and an emery wheel,—all driven by electric power.

The carriage shop contains four benches, each equipped with the necessary tools for carriage work.

A THREE-STORY CHEMISTRY BUILDING will be constructed next year which, when finished, will be occupied by the departments of chemistry, physics, and bacteriology.

THE BARN AND STOCK JUDGING PAVILION are equipped with good representatives of the various breeds of cattle, horses, sheep, and hogs, most common in the western section. Approved methods of livestock management are practiced. The Stock Judging Pavilion, where the classes in stock judging are held, makes it possible to do judging in all kinds of weather.

In addition to this, a college creamery is maintained, where butter and cheese of the best quality are made, according to the latest methods.

THE POULTRY BUILDING is 230 feet by 25 feet, with yards 100 feet wide on each side. The building is divided into two sections: first, the brooder section, with a capacity for about one thousand chicks; second, the experimental section, with a capacity for over five hundred hens. This section is divided into thirty-two pens; it is shut off from the public and used for conducting experiments in poultry culture. The building is heated by a hot water system. In the front part are an office, a feed and weigh room, a store room, and a sleeping apartment.

A modern incubator cellar has recently been provided which is well equipped with the latest incubators of different makes, egg distributing and turning tables, pedigree hatching trays, hygrometers, thermometers, acetylene, and electric egg testers.

THE GREENHOUSES are equipped for laboratory instruction in the propagation of horticultural plants, and in the practice of floriculture and vegetable gardening. The many apple orchards in the close vicinity give exceptional opportunity to study orchard problems and conduct laboratory exercises in pruning, grafting, picking and packing, etc.

THE VETERINARY HOSPITAL, a two-story stone and frame structure, 18 by 42 feet, containing a well-equipped dispensary, operating room, and stalls for patients, gives ample room for all the work in veterinary medicine at present offered by the College.

#### EQUIPMENT

*The Bacteriological Laboratory* is well equipped with modern apparatus for the work offered. Each student is provided with a high-power Leitz or Bausch and Laub microscope. Microscopes with triple nose-piece, fitted with 1-12 and 1-16 oil-immersion objectives, Abbe condenser, and rotary and mechanical stage, are used for identification work. The equipment includes an autoclave, hot-air and steam sterilizers, incubator, refrigerators, aerobic plate apparatus, anaerobic tube apparatus, microtome, analytic balance, cages, permanent mounts, precision glassware, chemicals, stains, and culture media. To encourage more careful work, the students are provided with individual lockers.

*The Chemical Laboratories* are also well equipped for elementary and advanced work in chemistry. Several valuable collections of gums, oils, coloring matters, foods, etc., are important aids to the students in this department. The laboratories are fitted with water, gas, hoods, and other conveniences.

*The Physical Laboratory Equipment* is very complete, consisting of all the necessary pieces of apparatus for class demonstration: a set of apparatus for elementary laboratory work, sufficient for fifteen students working on the same experiment; all pieces required for advanced work in mechanics, heat, electricity, magnetism, light, including high grade electrical measuring instruments of all kinds, standard and variable resistances, induction coils, dynamos, motors and rectifiers, heliostat, interferometer, spectrometers, polariscope, thermostat, finest of calorimeters, Beckman thermometers, thermocouples, cathetometer, Atwood machine, sensitive chemical balances, thermograph, barograph, anemometer, etc. Gas, water, compressed air, and con-

tinuous and alternating current electrical power are available.

*The Physiological Laboratory*, located on the first floor, in the south wing of the Main building, is supplied with skeletons both articulated and disarticulated, many enlarged models of organs, a *papier mache* manikin, and complete slides of all the tissues. Students have access to a set of vertebrate skeletons and to an excellent collection of native animals. The necessary reagents for physiological experimentation are at hand.

*The Zoological and Entomological Laboratory* is equipped with water and gas and has for use in laboratory work improved instruments, embryological models, skeletons from the vertebrate groups, collections of mounted birds, mammals, reptiles, and fishes; also alcoholic material in many groups. The department has economic and systematic collections of insects, which, with the private collections and libraries of the professors, are accessible to the students taking work in the department.

*The Botanical and Plant Pathological Laboratory* contains a large herbarium of flowering plants, ferns, horsetails, fungi, and algae for use in systematic botany and in the study of plant diseases. The laboratory is well equipped to do general work in all courses offered, as well as in research work. The apparatus consists of microtomes, both rotary and free hand, compound microscopes, dissecting microscopes, autoclave, Arnold sterilizer, a hot-air oven, an electrically equipped paraffin bath, balances, clinostat, culture room, together with glassware, reagents, and stains necessary to carry on successful botanical work. The department maintains a good working library in connection with the laboratory.

*The Department of Agronomy* is provided with a large collection of agricultural plants, seeds, and soils, representing the main crops and types of soil of the inter-mountain region. The College farms are equipped with the best and latest implements and machinery for carrying on work scientifically. They are divided, for illustrative and experimental purposes, into numerous plats on which many varieties of farm crops are grown, and upon which important experiments are carried on.

The soil physics laboratory has a good supply of apparatus for accurate and up-to-date work, including balances, microscopes, drying ovens, hot-water baths, compacting machines, and apparatus for determining the mechanical analysis of soils.

The farm crops laboratory, recently equipped with gas, has a large supply of farm crops on hand for illustrative and laboratory work. It is supplied with magnifying glasses, a Grey seed weigher, a vertical air-blast seed separator, a seed germinator and tester, as well as enlarged and dissectible models of various grains, grasses, and root crops.

*The Commercial Rooms* occupy the entire third floor of the front of the Main building, covering a floor area of 7,225 square feet. Each room is specially designed and furnished for the work to be conducted in it. Practice is given in the methods of modern banking; wholesale, retail, and commission trade; and in the methods used in freight, insurance, and real estate offices. The room for typewriting contains a full complement of standard machines. The rooms for stenography and penmanship are conveniently furnished for efficient work.

*The College Museums* contain a large number of specimens illustrative of geology, mineralogy, paleontology, and vertebrate and invertebrate zoology, including a large series of the insects of the inter-mountain region; also an extensive series of plants of the western highlands. An extensive collection of grains represents the produce of Utah and other states. Contributions of fossils, ores, animals, plants, relics, or other material of value to the museums, are highly appreciated. All gifts are labeled and preserved, and the name of the donor is kept on record.

*The Art Rooms*, composed of six studios, are supplied with plain and adjustable tables for the elementary work in drawing and design; also with easels and model stands for the studio. Individual lockers for students, and cases for the materials of the department are supplied. Casts from the old masters in sculpture, reproductions of great paintings, examples of Japanese art, still-life models, drawing boards, and draperies are included in the

equipment, as well as a valuable collection of ceramics, textiles, books on design, household art, sculpture, painting, and architecture.

The rooms are further supplied with a kiln for china firing, and equipment for work in ceramics, pottery, art leather, art metal, and jewelry.

Model rooms are supplied for training in interior decoration and household furnishing.

*The Library*, with the offices and reading room, occupies the entire front of the second floor of the Main building. The large, well-lighted main room is cheerful and inspiring, with an unsurpassed view over the entire valley. Growing plants, pieces of sculpture, and a number of oil paintings further enhance the attractiveness of the environment. The books are shelved on the Library Bureau, standard, steel stacks, arranged in alcoves, where tables are provided for advanced students wishing to do special study.

The library now contains about 27,000 bound volumes and a large number of pamphlets. The books are classified by the Dewey decimal system, and there is a complete dictionary card catalogue of the library. The shelf list, also on cards, forms a classed catalogue for official use.

The library, a depository for United States public documents, receives practically all material printed by the government. The files of the U. S. Agricultural Department and the publications of the State Experiment Stations are nearly complete; the bulletins are bound, and both made easy of access by the printed card catalogues. There are one hundred and twenty-five periodicals on the subscription list, besides about eighty which are received as exchanges for the publications of the College and of the Experiment Station. Thirty-five newspapers of the State are regularly received and placed on file in the reading room.

*The land* occupied by the College and its several departments embraces about 116 acres. Of this, thirty-five acres constitute the campus, laid out with flower-beds, broad stretches of lawn, and

wide drives and walks leading to the College buildings. During the summer the conservatory contributes specimen plants for lawn decoration.

Immediately east of the Main building are the parade grounds and old athletic field, of about ten acres. The farms comprise 71 acres; the orchards and the small fruit and vegetable gardens, 10 acres. All parts of the College grounds are used by the professors in charge of instruction in agriculture and horticulture and by the Experiment Station staff for the purpose of practical illustration in their respective departments, and for experimentation.

A number of other farms are maintained, under the direction of the Experiment Station, in various parts of the State.

The equipment of the Branch Agricultural College is described in the circular of that institution.

## THE AGRICULTURAL EXPERIMENT STATION

THE AGRICULTURAL EXPERIMENT STATION is a department of the College, supported by Congressional and State appropriations, supplemented by the receipts from the sales of farm products. The station was created for the special purpose of discovering new truths that may be applied in agriculture, and of making new applications of well-established laws. It is, therefore, essentially a department devoted to research; and as such, it does the most advanced work of the College.

The Experiment Station is not, in the ordinary sense, an institution where model farming is carried on. It has a much higher purpose. The practices of the farmer are subjected to scientific tests, in order to determine why one is bad and the other good. Acting on the suggestions thus obtained, the scientists begin new investigations, in the hope that truths of great value to the farmer may be discovered.

The Station confines its efforts as far as possible to the particular problems of the inter-mountain regions. Irrigation is the

foundation of western agriculture and irrigation has therefore received greatest attention at this station. Elaborate experimental plats have been equipped, where the value of different quantities and different methods of application of water have been studied and the underlying principles brought out.

Dry-farming extends agriculture beyond the reach of the irrigation canal, and its problems are only second in importance to those of irrigation in the development of the West. A number of experimental dry-farms are maintained on which every effort has been made to increase the possibilities of production of this arid, unirrigated land. Many of the present investigations involve the water-holding capacity of soils, the water requirements of crops, the movement of plant foods, and other questions fundamental to all systems of agriculture.

Other problems vitally affecting the agricultural West are under investigation. Breeding experiments for the improvement of sugar beets, dry land grains, alfalfa, and poultry are in progress. Studies of insect pests and plant diseases affecting western crops and orchards have received consideration. The problem of producing fruit free from worms has been practically solved. The control of the alfalfa weevil is the present problem. The development of better cropping methods, care and feeding of livestock, the development of the dairy industry, and the general betterment of western agricultural conditions are among the problems the station is attempting to solve.

State appropriations are granted under provision that the Southern experiment farm and the arid experiment farms be maintained, and that work in irrigation and drainage, and the study of the alfalfa weevil, be continued. Publications of the station are also provided for. Bulletins containing the results of experimental work, circulars containing timely and practical information on various subjects, an annual report giving account of the station's activities during the year, together with an itemized statement of its expenditures,—these constitute the publications of the station. The bulletins and circulars are published at irregular intervals.



The Experiment Station has a high educational value. Nearly all the members of the Station staff are also members of the College faculty; the students, therefore, receive at first hand an account of the methods and results of the work of the Station, and training in their application. The opportunities that the Experiment Station offers for advanced work in several branches of science are of great importance. The scientific method and spirit characterize all the operations of the Station, and none can fail to be benefited by a study of the experiments that go on at all times of the year.

The Station staff are always glad to assist the advanced students of the institution in any investigation they may wish to undertake.

### THE EXTENSION DIVISION

The Extension Division of the Utah Agricultural College was organized for the purpose of disseminating all the work of the College among the people of the State, as far as this is practicable, and for the further purpose of beginning new work outside the College which may be of service to the people of the State. The Division, therefore, serves two purposes: it carries on organized instruction in the various subjects included in the College curriculum; and it performs personal and community service of a more directly practical nature.

#### ADMINISTRATIVE DEPARTMENTS

The Extension Division, in its administration, is divided into seven departments as follows:

1. Farmers' Institutes and Schools
2. Boys' and Girls' Clubs
3. Farm and Home Demonstration
4. Women's Social and Home Economics Associations
5. Correspondence Studies

## 6. Trains, Fairs and Exhibits

## 7. Publications

The Department of Farmers' Institutes and Schools includes the work done in meetings among the farmers and housewives of the State. These meetings may be single, called institutes; or they may be organized courses of study in one or many subjects, called schools. In the schools, the field of instruction is broad, based largely upon existing courses of instruction in the College. At present the following courses of instruction are emphasized because of their immediate relation to the needs of the State: agronomy, agricultural economics, agricultural engineering, animal husbandry and dairying, entomology, home economics, horticulture, irrigation, poultry husbandry, and veterinary science. As the work develops, the field of instruction will be enlarged to include all the courses given in the institution which are adaptable to extension instruction.

The Department of Boys' and Girls' Clubs is conducted co-operatively with the United States Department of Agriculture. The purpose of this department is to interest the boys and girls in agriculture, home economics, and other industrial subjects, and to be of direct service to the parents of the State in supplying work of great intellectual and practical value for their sons and daughters. This work is affiliated with public schools, church organizations, and other existing organizations of boys and girls. Contests are conducted by the department in the growing of potatoes, sugar beets, mangel wurzels, cabbages, onions, peas, tomatoes, cucumbers, celery, poultry, corn and pigs, flowers, and in the making of bread, in canning, sewing, in the arts and crafts, etc. The competition is arranged first among members of the same club; then among the champions of the clubs in the county; and finally, among the champions of all the counties. A State champion boy and a State champion girl are thus selected each year. To promote the work, various prizes are offered.

The Department of Farm and Home Demonstration controls the work of the county demonstrators, also called agents and advisers. The appointing of county demonstrators in both agricul-

ture and home economics was authorized by the State legislature of 1913. The law authorizes the College to enter into cooperation with the United States Department of Agriculture, with county and city officers, and with private or public organizations or individuals in pursuance of the work. The demonstrators travel from farm to farm and from home to home presenting and demonstrating such facts, principles, and practices of modern agriculture and home science as seem needed in the development of the districts assigned. The demonstrators cooperate with the experts at the College and of the United States Department of Agriculture. The demonstrator, therefore, is looked upon not as a separate and distinct unit in extension work, but rather as a member of the extension faculty in agriculture and home economics. Cooperation has been effected with the United States Department of Agriculture, with the various county commissioners, and with individuals.

The Department of Associations for Women works through the women's organizations of the State—civic, religious, or literary—and organizes groups of girls and women in the study of home economics. Monthly study outlines, or home economics leaflets, are issued by the Extension Division for the use of the home economics associations. Such aid as is possible is given other women's organizations in the State to help them in their educational and home work. This aid takes the form of special lectures, supplying reading matter, suggestions for organization, and study outlines.

**THE CORRESPONDENCE-STUDY DEPARTMENT.** One of the recent developments of college and university organization is the establishing of correspondence-study departments. Universities and colleges have discovered in them an opportunity to extend their activities beyond the class room and laboratories to the fireside.

Correspondence-study furnishes an excellent opportunity of systematic instruction for the student preparing for high school or college, the teacher, the professional or business man, club women,

and for all people whose time is so taken up that they cannot leave home.

*Admission.* Students must be eighteen years of age or graduates of the public school.

*Scope.* Courses are offered in this department as follows:

1. Academic studies which, under certain restrictions, may be taken for credit towards a degree.

2. Practical studies designed to advance men and women in a given occupation.

3. A Colonists' course for those who have come to Utah recently or those who, having lived here, wish to follow agriculture as a pursuit.

4. Housekeepers' course for the housekeepers of the State, relating to domestic economy, including household architecture, home sanitation, the economic and hygienic value of foods and clothing, and the scientific care of children.

5. Preparatory or high school course.

6. Preparatory or grade studies.

A special bulletin of the correspondence-study department will be mailed to any one interested in this work.

The purpose of the Department of Trains, Fairs and Exhibits is to conduct trains in cooperation with the railroads, to encourage county and other fairs by supplying organization and exhibition outlines, lectures, and judges of exhibits. On various other occasions the Extension Division is called upon to supply material for exhibition.

The publications of the Division are issued as occasion demands.

## COLLEGE PROPER

### ORGANIZATION

For the purpose of efficient administration, the instruction on the campus or in the College Proper is divided into seven schools: (1) The School of Agriculture; (2) The School of Home Econom-

ics; (3) The School of Agricultural Engineering; (4) The School of Commerce; (5) The School of Mechanic Arts; (6) The School of General Science; (7) The Summer School. In addition the last two years of a high school department are this year maintained. These schools are educationally interdependent, and together form a unit.

*The School of Agriculture* offers a four-year college course with opportunity to major in agronomy, horticulture, animal husbandry and dairying, agricultural chemistry, bacteriology, plant pathology, veterinary science, or economic entomology.

*The School of Home Economics* offers a four-year college course with opportunity to major in food and dietetics, domestic arts, home sanitation and construction, art, and music.

*The School of Agricultural Engineering* offers a four-year college course with the opportunity to major in irrigation and drainage, farm mechanics, agricultural surveying, roads, rural architecture, rural sanitation, and agricultural technology.

*The School of Commerce* offers a four-year college course with the opportunity to major in accounting, economics, political science, sociology, and history.

*The School of Mechanic Arts* offers a college course in mechanic arts, with the opportunity to major in woodwork, iron work, and machine work.

*The School of General Science* offers a four-year college course in general science.

*The Summer School* offers instruction during six weeks of the summer, after the regular term has closed, in most of the subjects taught during the winter.

Each school also offers *Practical Year and Winter Courses* which may be taken by mature students fitted to follow them.

For *Normal Training*, see page 52.

## THE SCHOOL OF AGRICULTURE

Agriculture is one of the most promising of modern professions. It is growing very rapidly, and owing to the scientific foundation that recent years have given it, large numbers of intelligent people are adopting it as their means of livelihood. The new agriculture is not a profession of unceasing toil. On the contrary, the freedom, health, intellectual activity, and profit to be obtained from intelligent farming are attracting the best classes of people. Utah and other western states are offering excellent opportunities to those who prepare themselves for scientific farming. There is a great demand for men who can supervise large farm enterprises; there is a greater demand for men who can act as experts, experimenters or teachers in the schools and other institutions in the State and National Government. The supply of such men does not begin to equal the demand.

The instruction in agriculture is drawn from any or all the departments of instruction. The departments giving instruction in the technical phases of agriculture are described further on.

Experience has shown that practically all of the students who take agriculture come from the farms, and it is assumed that they are acquainted with the various manual operations of farm work. The design of the courses is, therefore, to teach the sciences that underlie practical agriculture, and to offer sufficient supplementary studies to develop the agricultural student to the intellectual level of the educated in the other professions. The agricultural courses are planned to lay a foundation upon which the student can build a successful career as a farmer or develop into a specialist in some one line of agriculture.

The general and departmental libraries enable the student to become acquainted with a wide range of agricultural and related literature; the laboratories of the College, and the Experiment Station afford opportunity for training and experience not obtainable from books alone.

For subjects in which the student may major see page 53.

## THE SCHOOL OF HOME ECONOMICS

The courses in Home Economics aim to train and broaden the minds of women, and to enable them to meet more intelligently the home demands of modern life. When woman has learned to apply the principles of science, economics, and art to the problems of daily living she will realize that housekeeping is an occupation which results in more efficient living. Formerly the higher education of woman led her away from the practical interests of the home. The recent instituting of domestic science courses in many leading colleges and universities shows a public demand for education toward home life rather than away from it. The State of Utah wisely introduced such courses when this College was first organized; and the favor with which the work has been received by the public shows the wisdom of the plan. The home economics courses have been strengthened each year, and better facilities for instruction and study have been provided. The School of Home Economics comprises five departments,—namely, Food and Dietetics, Domestic Art, House Construction and Sanitation, Art, and Music. The four-year courses give the same general training as do other baccalaureate courses, together with a broader culture in literature and other subjects of special interest to women than is offered in any other. Both in the preliminary work and in the advanced years, special studies in the various lines of home science are prescribed in logical order as the distinctive feature of the course.

The practical courses in home economics are offered for the benefit of young women who do not wish to take the studies of the regular college years, but desire to devote more time to the subjects of special interest to women.

For majors and minors see page 54.

## THE SCHOOL OF AGRICULTURAL ENGINEERING

The rural problem has many phases. An adequate and self-perpetuating country life cannot be introduced simply by teaching

people how to raise grain and fruit, and how to manage and improve livestock. The country could be filled with farmers well trained in these branches and still lack many of the elements necessary for a well-balanced and efficient rural community. There are many problems having to do with the entire community rather than with the individual farmer, which must be solved by men with training for that kind of work rather than by those trained to produce crops and livestock on a single farm. Again, there are questions on the individual farm which have to do with construction rather than with production from the soil. These questions, if they are to be answered properly, must be answered by men with special training.

In the past, agricultural colleges have given their attention to the direct questions of farming, but the time has come when the entire rural problem must be met. The farm must be a desirable and healthful place to live. The buildings must be so arranged and constructed as to give the maximum of efficiency and comfort and at the same time have proper sanitary provision. The rural roads must be such that the farmer can move his crops with small expense, and go to town with comfort and speed. The machinery of the farm must be so constructed and cared for that it will be reliable and do its work economically. The limited supply of irrigation water must be so used that it will produce maximum returns. There must be factories to change the raw materials of the farm into high-priced finished products. All these necessities demand men trained for such work.

These various activities may be classed under agricultural engineering. To meet the demand for this work, the Utah Agricultural College has organized a School of Agricultural Engineering. The work is designed to give men general training that will enable them to solve all but the most technical engineering problems of an entire rural community. The courses will also be very helpful to the man going back to the farm, who does not wish to do the work of a trained engineer.

Students may major in irrigation and drainage, farm me-



chanics, agricultural surveying, farm and public roads, rural architecture, rural sanitation and public health, agricultural technology, and art. These courses all lead to the degree of Bachelor of Science.

### THE SCHOOL OF COMMERCE

The purpose of the School of Commerce is to give opportunity for a liberal education with special emphasis upon the commercial and industrial phases of life. Persons who complete the commercial courses should be better prepared to assume leadership and responsibility in business and in the various industries and professions. In order to meet the growing demands and to keep pace with recent tendencies in business education, students working for the bachelor's degree may major in economics, political science, sociology, accounting, and history.

In addition to these college courses, practical year and winter courses are offered.

For those who wish to enter the professions of law and medicine, the commercial courses afford excellent preparation. Students who complete the courses are prepared for positions as teachers in commercial schools. The demand for thoroughly qualified teachers is greater than the supply, and many desirable positions as industrial managers are open to those who can do the work.

### THE SCHOOL OF MECHANIC ARTS

The information offered in the mechanic arts courses finds application in every industrial activity, and is much demanded by the rapid growth in the mechanical and industrial pursuits. As more and more of the work of man is done by machinery and labor saving devices, it is desirable to obtain information that will enable him to meet the new conditions intelligently. The many applications of electricity and gas power in the factory, shop, home,

and on the farm, and the advent of the automobile demand a knowledge of materials, tools, machines, and processes.

The agricultural student can obtain in the School of Mechanic Arts just the information he needs to enable him to do the constructive work in farm buildings, and the repair work necessary in operating machinery, thereby making farm life more profitable and desirable. Those who intend to follow engineering will find no better preparation than that offered in the mechanic arts courses. In the shops a knowledge of the nature of materials, methods of construction and operation of machinery, can be had better than elsewhere. The demand for manual training teachers is far in advance of the supply. This school offers efficient instruction and assistance in the preparation of such teachers. The one endowed with innate mechanical ability will find ample opportunity to develop his powers, and enjoy the privilege of working where nature intended. The life of the first class mechanic is as free as any, and his efforts bring good wages. The shops are especially equipped and otherwise prepared to give instruction to those choosing this as a source of livelihood.

After the preliminary work of the shops has been completed the course admits of specialization in cabinet making, wood-turning, pattern-making, house building and finishing, general blacksmithing, horseshoeing, carriage building and repairing, tool making, press work, die construction, jigs and fixtures, machine construction, and shop management.

The drafting rooms give thorough work in the methods of making mechanical drawings, and afford opportunity to specialize in the line of work the student is pursuing; such as, architectural, carriage, machine, and agricultural drawing.

All the departments of the School of Mechanic Arts are excellently equipped with the necessary tools for their respective work.

A four years' college course leading to the degree of Bachelor of Science is offered. Students may major in wood work, iron work, machine work, and art. Short practical Year and Winter Courses are also offered.

All products of the shop are the property of the school, students being allowed to take away specimens of their work only by permission.

## THE SCHOOL OF GENERAL SCIENCE

To carry out the work of the several technical schools of the College, an efficient instructing force and a complete modern equipment have been provided in the natural and physical sciences, as well as in English, mathematics, history, language, etc. This makes it possible to satisfy the growing demand for strong baccalaureate courses affording a broad general education in the earlier years, and admitting of specialization later, when the student has matured his plans. Such courses constitute the work of the School of General Science, and, paralleling the other degree courses of the College, lead to the degree of Bachelor of Science.

Upon completion of four years' work in general science, students receive the degree of Bachelor of Science in General Science.

For subjects in which students may major, see page 54.

## SUMMER SCHOOL

The College maintains, as an integral part of its work, a summer session, beginning early in June, and continuing for six weeks. Every department of the College is represented, the courses of instruction being arranged to meet the particular needs of summer students. For the benefit of teachers, special courses are provided in addition to the regular work of the College. Students desiring to make up conditions or prepare for advanced work are given all assistance possible. The entire equipment of the institution is available for the summer session, and every care is taken to preserve the standard and the spirit of the College. No admission requirements are prescribed, but students in all departments are directed by instructors to those courses in

which they may pursue work to the best advantage. Arrangements have been made with the State Board of Education to accept summer school credits in individual subjects in lieu of examination. An entrance fee of \$5 is charged for each course. Board and rooms can be secured throughout the city at the usual prices. The special summer school circular will be sent on request.

**NORMAL TRAINING.** For the purpose of providing specially trained teachers of domestic science and arts, agriculture, and mechanic arts, arrangements have been made whereby the graduates of the Normal School of the State University may enter the degree courses of the Agricultural College and there obtain technical work in home economics, agriculture, and mechanic arts. All the work done in the State Normal School is credited the candidates for the professional degree.

Graduates from the degree courses in home economics, agriculture, and mechanic arts of the Agricultural College are given the normal certificate upon the completion of one year of professional work at the State Normal School.

## SCHEDULE OF REQUIRED WORK FOR GRADUATION

A regular student who presents 14 units of high school work for entrance, must complete 120 semester hours before receiving his diploma. A student who has presented for entrance 11 units of high school work, under the old requirement, must complete 140 semester hours before receiving his diploma. Of the required 120 hours, 16, forming the major, must be in one department. The minor of 12 hours, chosen from one or more departments, must be taken in the same school as the major. This is the so-called *technical* work. Besides this, 64 hours of *general* work must be chosen from different groups. Finally, 28 hours of elective work are required. This is shown in tabular form as follows:

SUMMARY OF REQUIREMENTS FOR GRADUATION

(In Semester Credit Hours)

<i>Technical Division</i>	
Major Subject .....	16 hours
Minor Subject (must be in same school as the major subject) .....	12 "
<i>General Division</i>	
Biological Science Group.....	12 "
Elective .....	28 "
Exact Science Group.....	24 "
Language Group .....	16 "
Social Science Group.....	12 "
<hr/>	
Total.....	120 hours

The departments of instruction from which major and minor subjects may be elected are grouped as follows:

REQUIRED WORK

*Technical Division*

Major, 16 hours in one department

Minor, 12 hours in some other department or departments of the same school

SCHOOL OF AGRICULTURE

- |                            |                    |
|----------------------------|--------------------|
| Agronomy                   | Chemistry          |
| Animal Husbandry           | Dairying           |
| Art (minor only)           | Entomology         |
| Bacteriology               | Horticulture       |
| Botany and Plant Pathology | Veterinary Science |

## SCHOOL OF AGRICULTURAL ENGINEERING

Art	Irrigation and Drainage
Agricultural Surveying	Roads
Agricultural Technology	Rural Architecture
Farm Mechanics	Rural Sanitation

## SCHOOL OF COMMERCE

Accounting and Business Prac- tice	Political Science
Art (minor only)	Sociology
Economics	Stenography (minor only)
History	Typewriting (minor only)

## SCHOOL OF HOME ECONOMICS

Art	Home Sanitation and Construc- tion
Domestic Art	Music
Food and Dietetics	

## SCHOOL OF MECHANIC ARTS

Art	Machine Work
Iron Work	Wood Work

## SCHOOL OF GENERAL SCIENCE

Art	History
Bacteriology	Library Work*
Botany	Mathematics
Chemistry	Music
Drill*	Physics
English	Physical Education*
Entomology	Physiology
Foreign Languages	Zoology
Geology	

The departments of instruction from which the general subjects may be elected are grouped as follows:

*\*May count towards a minor.*

## REQUIRED WORK

*General Division*

## BIOLOGICAL SCIENCE GROUP (12 hours)

Bacteriology	Physiology
Botany	Veterinary Science
Entomology	Zoology

## EXACT SCIENCE GROUP (24 hours)

Accounting	Mathematics
Chemistry	Physics
Geology and Mineralogy	

## LANGUAGE GROUP (16 hours)

English	Latin
French	Spanish
German	

## SOCIAL SCIENCE GROUP (12 hours)

Economics	Political Science
History	Sociology

## ELECTIVES—28 hours

## PRACTICAL COURSES

Winter and year courses of a purely practical nature, in agriculture, home economics, mechanic arts, and commerce have been established. These courses are not intended for young people of high school age. To enter them, a person must be over eighteen years of age, or must have completed two years of high school work. There are no other entrance requirements, and no entrance examinations. Such students are allowed to take any course for which their training is adequate. No student is permitted to choose work in commerce, however, without taking at the same time a course in English. Special groups of studies suitable for such students are given below:

## FULL YEAR COURSES

## AGRICULTURE

FIRST YEAR		SECOND YEAR	
Agronomy 1 .....	4	Animal Husbandry 1.....	4
Horticulture 1 .....	3	Irrigation 1 .....	3
Veterinary Science 1.....	3	Entomology 1 .....	3
Poultry 1 .....	3	Dairying I .....	3
Shop .....	5	Shop .....	5

## HOME ECONOMICS

	1st Term	2nd Term
Domestic Art a and b.....	3	3
Domestic Science .....	5	5
Physiology 1 .....	2	2
English a .....	5	5
Art .....	3	3
Gymnasium Work .....	1	1
Accounting 1 .....	5	5

## MECHANIC ARTS

	1st Term	2nd Term
Carpentry a and b.....	5	5
Forging a and b.....	5	5
Machine Work a and b.....	5	5

## COMMERCE

## FIRST YEAR

	1st Term	2nd Term
English a .....	5	5
Business Correspondence .....	3	3
Accounting a .....	5	5
Stenography a .....	5	5
Typewriting .....	1	1
Physical Education .....	1	1
	20	20



SECOND YEAR

English b .....	5	5
Accounting b .....	5	5
Stenography b .....	5	5
Commercial Arithmetic .....	3	3
Typewriting .....	1	1
Drill .....	1	1
	—	—
	20	20

THIRD YEAR

Accounting c .....	5	5
English c .....	3	3
Economics 11 .....	3	3
Drill .....	1	1
Electives .....	6	6
	—	—
	18	18

WINTER COURSES

These courses are designed for students who are on the farm late in the fall and early in the spring. The instruction given covers one half of a school year. Credits earned in the winter courses may be applied towards graduation should the student enter a regular course.

The instruction begins Tuesday, November 17, and closes Saturday, March 27.

*The following subjects will be offered from which winter students may elect from 18 to 20 hours:*

AGRICULTURE

FIRST YEAR

Crops and Soils.....	5
Fruit Growing .....	5
Poultry Keeping .....	5
Shop Work .....	5

SECOND YEAR

Stock Judging .....	5
Insect Pests .....	5
Veterinary Science .....	5
Farm Accounting .....	5
Shop .....	5

(Not more than four may be taken.)

## MECHANICAL ARTS AND AGRICULTURAL ENGINEERING

Farm Buildings and Machinery.....	5
Carpentry .....	5
Forging .....	5
Machine Work .....	5

## COMMERCE

English x.....	5
Business Correspondence and Spelling.....	5
Commercial Arithmetic .....	5
Penmanship .....	1
Accounting 1 .....	1
Economics 11 .....	3

Classes in mathematics and other general subjects are also organized for winter students.

## SPECIAL STUDENTS

Students of mature age who do not wish a college diploma are allowed to select studies in any school they desire, provided they have done enough preliminary work to carry the courses successfully.

## RELATION BETWEEN U. OF U. AND U. A. C.

The University of Utah and the Agricultural College of Utah are the two institutions maintained by the State for the higher education of its citizens. They have been assigned separate and sharply defined parts of the field of human knowledge. The laws defining these divisions are printed below.

In spite of the existing laws, much misunderstanding exists as to the work that may be done by either of these institutions. To set doubts at rest, the agreement printed below, which is merely an interpretation of the law, has been ratified by the Board of Regents of the University of Utah and by the Board of Trustees of the Utah Agricultural College.

To the Agricultural College, alone, has been assigned the collegiate work in all branches of agriculture, irrigation, agricultural engineering, home economics, including domestic science and art, commerce, and mechanic arts. To do properly the work thus assigned, first class departments must be maintained in practically all of the arts and sciences. All the work of the Agricultural College is, however, done with a view to its application in the fields belonging to the College. Moreover, the College is the conservator, as far as an educational institution may be such, of the industrial development of the State, excluding pure engineering and normal work, which are specifically assigned to the University of Utah.

#### STATE LAWS RELATING TO THE WORK OF THE TWO INSTITUTIONS

2292. Courses of Study in the University. The University, until otherwise provided for by law, shall be the highest branch of the system of public education. As far as practicable its courses and methods shall be arranged to supplement the instruction of the subordinate branches of such system, with a view to afford a thorough education to students of both sexes in the arts, the sciences, literature, and the civil professions, including engineering; but the University must not include in its courses, agriculture, except elementary agriculture as is or may be prescribed in the normal course, horticulture, animal industry, veterinary science, domestic science and art, except as is or may be prescribed in the normal course, and instruction in irrigation as applied to the measurement, distribution, and application of water for agricultural purposes. Approved March 9, 1911.

2087. Courses of Study in the Agricultural College. The courses of instruction in the Agricultural College, until otherwise provided for by law, shall comprise agriculture, horticulture, forestry, animal industry, veterinary science, domestic science and art, elementary commerce, elementary surveying, instruction in irrigation as applied to the measurement, distribution, and application

of water for agricultural purposes, for which a degree of engineering in agriculture may be given, military science and tactics, history, language, and the various branches of mathematics, physical and natural science, and mechanic arts, with special reference to the liberal and practical education of the industrial classes. But the Agricultural College shall not give courses in liberal arts, pedagogy, the profession of law or medicine, or engineering, except agricultural engineering. Approved March 9, 1911.

UNIVERSITY OF UTAH-AGRICULTURAL COLLEGE AGREEMENT

Proposition 1

The School of Education of the University of Utah shall give all the courses necessary to prepare teachers and supervisors in the elementary schools in all subjects taught in these schools; but the University shall not offer the technical work in agriculture and domestic science and domestic art, needed to prepare special teachers of these subjects in secondary schools. The University shall not offer advanced courses in agriculture, domestic science, and domestic arts; it may offer elementary courses in these subjects—high school courses—and educational courses, i. e., the methods of teaching these subjects.

It is understood that in these subjects courses suitable for third and fourth year high school students are also suitable for freshmen and sophomores in the college who have not had these courses. Such courses may be taught in the School of Education of the University, and students of college grade may receive college credit upon completion of these courses.

The Agricultural College shall not offer courses in education, but shall advise all students preparing to teach to come to the State School of Education to receive instruction and training in professional educational subjects. The School of Education shall advise all students wishing to become special teachers of agriculture, domestic science, or domestic arts in high schools to go to the State Agricultural College for their technical work of college grade in these subjects.

## Departments of Instruction

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- |                                     |                                      |
|-------------------------------------|--------------------------------------|
| 1. Accounting and Business Practice | 15. History                          |
| 2. Agricultural Engineering         | 16. Home Construction and Sanitation |
| 3. Agronomy                         | 17. Horticulture                     |
| 4. Animal Husbandry                 | 18. Library Work                     |
| 5. Art                              | 19. Mathematics                      |
| 6. Bacteriology and Physiology      | 20. Mechanic Arts                    |
| 7. Botany                           | 21. Military Science and Tactics     |
| 8. Chemistry                        | 22. Modern Languages and Latin       |
| 9. Domestic Art                     | 23. Music                            |
| 10. Economics and Sociology         | 24. Physical Education               |
| 11. English                         | 25. Physics and Farm Machinery       |
| 12. Finance and Banking             | 26. Political Science                |
| 13. Food and Dietetics              | 27. Veterinary Science               |
| 14. Geology and Roads               | 28. Zoology and Entomology           |

Courses numbered a, b, c, etc., constitute the work of the short practical courses and are of high school grade.

Courses numbered 1, 2, 3, etc., are of college grade.

### RECITATION TABLE

The recitation periods, commonly known as hours, are fifty minutes in duration and begin at 8:30 a. m. The following table shows the entire schedule:

- |         |             |
|---------|-------------|
| 1 hour, | 8:30—9:20   |
| 2 hour, | 9:20—10:10  |
| 3 hour, | 10:10—11:00 |

4 hour, 11:00—11:50

5 hour, 11:50—12:40

6 hour, 12:40— 1:30

7 hour, 1:30— 2:20

8 hour, 2:20— 3:10

9 hour, 3:10— 4:00

From 11 a. m. to 2 p. m. the cafeteria, or college restaurant, is open.

The fourth period (from 11 to 11:50 a. m.) is devoted on Tuesdays to chapel exercises, on Fridays to Student Body meetings, and on Wednesdays, Thursdays, and Saturdays, to military drill.

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## ACCOUNTING AND BUSINESS PRACTICE

PROFESSOR P. E. PETERSON

MR. THAIN

a. **ELEMENTARY BOOKKEEPING.** Training in the fundamental principles of modern accountancy. Entries are made to purchases, sales, and inventory accounts. Subsidiary trading and profit and loss accounts are thoroughly explained. Thorough drill is given in the preparation of trading and profit and loss statements, and in statements of resources and liabilities. Two hours daily throughout the year. Ten credits.

12:40 to 2:20, daily

b. **BOOKKEEPING AND BUSINESS PRACTICE.** A continuation of the work done in course a. In the second term, the student employs the principles previously learned in a manner approaching, as nearly as possible, actual business. He performs complete transactions with the firms represented in the office-practice department. As much of the work is done by correspondence, special emphasis is given to letter writing. Two hours daily throughout the year. Ten credits.

2:20 to 4:00, daily

c. **BOOKKEEPING AND OFFICE PRACTICE.** In the first half of this course the student is given instruction in the use of the various office appliances—filing systems, mechanical devices, short-cut and time saving methods, etc. In the latter half, the students are employed successively in offices representing various lines of business: wholesale and retail merchandising, real estate and insurance, commission, railway station work, and banking. Corporation organization and accounting are emphasized. Two hours daily throughout the year. Ten credits.

2:20 to 4:00, daily

d. **FARM BOOKKEEPING.** A course intended to supply the needs of students doing work in the short courses in agriculture. Laboratory work and lectures. Winter course work.

e. **COMMERCIAL ARITHMETIC.** This is a complete course in commercial mathematics. Particular attention is given to business measurements, and to percentage and interest as applied to profit and loss, commission, stocks and bonds, insurance, bank discount, averaging accounts, and partnership adjustments. Short methods are emphasized. Three hours throughout the year. Six credits.

Tu. Th. Sat. 8:30

f. **BUSINESS CORRESPONDENCE AND SPELLING.** This course is designed for first year students. Practice in the writing of all kinds of business letters is given, and the correct use of all business blanks and forms is emphasized. The latter part of the course is devoted to the acquiring of a business vocabulary. Two hours throughout the year. Four credits.

Wed. Fri. 8:30

1. **PRINCIPLES OF ACCOUNTING.** Primarily a course in theory. Much of the first semester is devoted to practical bookkeeping methods to meet the needs of students who have not had sufficient training before entering the course. The rest of the year is given to advanced work. Some of the subjects treated are: the theory of double entry bookkeeping, balance sheet, assets and their valuation, depreciation, liabilities, surplus, reserves, sinking funds, etc. Practical problems are given. Two lectures and two

two-hour accounting-practice periods a week throughout the year. Accounting 1 may, however, be elected as a half course by non-commercial students. Six credits.

Lec. Tu. Th. 9:20; acct. prac. Wed. Fri. 9:20 to 4

2. SYSTEMS OF ACCOUNTS. A thorough study of the leading accounting systems of business firms; such as, building and loan associations, life and fire insurance companies, banks, trust companies, creameries, department stores, electric lighting, steam railway, electric railway, municipalities, and executor's and trustee's accounts. Each student is required to inspect and report upon the accounting systems of representative local and other business firms, and, in addition, to outline and install a suitable system of accounts for at least one of the school offices. Lectures, assigned problems, and reports. Eight credits.

Daily except Sat. 10:10 to 11

3. PRACTICAL ACCOUNTING. This course gives special attention to the working out of various published reports and balance sheets, and to the solution of accounting problems likely to arise in actual practice. It is essentially the case method applied to accounting. Three hours throughout the year. Six credits.

Tu. Th. Sat. 11:50

4. COST ACCOUNTING. A half course dealing with cost accounting, factory organization, and systematizing. Two lectures and one three-hour laboratory period. Three credits.

*Not given in 1914--1915.*

5. CORPORATION ACCOUNTING. A half course giving practical training in all the phases of corporate organization, and accounts. Two lectures and one laboratory period. Three credits

*Not given in 1914--1915.*

6. AUDITING. A full course, open to those sufficiently qualified, covering the field of auditing and investigations. Besides the theoretical study students have the opportunity to audit the accounts of the school offices. Three hours throughout the year. Six credits.

*Alternates with courses 4 and 5. Not given in 1914-1915.*



7. **HOUSEHOLD ACCOUNTS.** The practical application of accounting principles to home problems, intended to meet the needs of students in the School of Home Economics. Prerequisite, Accounting 1. Two lectures and two two-hour accounting-practice periods, second term. Three credits.

8. **FARM ACCOUNTS.** The direct application of accounting principles to the needs of the farm. A course in farm cost accounts. Prerequisite, Accounting 1. Two lectures and two accounting-practice periods, second term. Three credits.

Lec. Tu. Th. 1:30; acct. periods, Wed. Fri. 12:40 to 2:20  
*For stenography and typewriting, see page 134.*

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## AGRICULTURAL ENGINEERING

PROFESSOR HARRIS, DIRECTOR

IRRIGATION AND DRAINAGE

PROFESSOR R. B. WEST

MR. WINSOR

1. **ELEMENTARY IRRIGATION AND DRAINAGE.** An elementary course designed especially to meet the requirements of the student who can give but a limited time to the subject. Lectures on field irrigation and methods of farm drainage. Field excursions to irrigation systems and practical drainage operations. Three hours, first term. Three credits.

Tu. Th. Sat. 8:30

2. **IRRIGATION PRACTICE.** This course deals with the agricultural rather than with the engineering side of irrigation. It treats of methods of handling the water after it has reached the land, and of the relations between moisture and crops. Those periods in the growth of plants especially influenced by moisture-

environment, and the effect of this environment on the yield and composition are given special attention. Prerequisites, Botany 1 and Agronomy 14. Two lectures and one laboratory period, second term. Three credits.

Lec. Th. Sat. 8:30; lab. Fri. 2:20 to 4:50

3. FARM DRAINAGE. A technical course, dealing with the laying out and constructing of drainage systems in arid regions. Special attention is given to the drainage of alkali lands. Three hours, first term. Three credits. Prerequisites, Irrigation 1, Plane Surveying.

Tu. Th. Sat. 12:40

4. IRRIGATION SYSTEMS. Irrigation systems are studied as units. Such problems as the planning and conducting of irrigation projects, forming companies, getting rights, laying out and constructing canal systems, are discussed. Trips are made to inspect some of the important irrigation projects of the State. Prerequisites, Irrigation I, Plane Surveying, Hydraulics, and Rural Architecture 3 and 4. Three hours, second term. Three credits.

5. IRRIGATION MANAGEMENT. This course deals with methods of managing irrigation canals after they have once been put into operation. It discusses methods of keeping the canal in repair, and of properly distributing the water to users. It is especially valuable to water masters. Two hours, first term. Two credits.

6. IRRIGATION INSTITUTIONS AND ECONOMICS. This course treats of the relation of irrigation to various industries and to the country in general. It also discusses the law regarding the use of water. Two hours, second term. Two credits.

7. HYDRAULICS. A technical course dealing with the flow of water in natural and artificial open channels, pipes, and flumes; the elementary laws of liquids in motion and at rest; and the elementary principles of water power development. Three hours, second term. Three credits.

Tu. Th. Sat. 10:10

8. RAINFALL AND RIVER FLOW OF THE WORLD. A general survey of the regions of the world where the rainfall is so light as to require irrigation; the available supply of irrigation water in streams, and the possible methods of increasing that supply by reservoirs, etc. Two hours, one term. Two credits.

9. IRRIGATION DESIGNS. Engineering of water delivery to the land. Design of headgates, flumes in wood and iron, drops, dams, and spillways, etc. Prerequisites, Irrigation and Drainage 7, Rural Architecture 3 and 4. Three hours throughout the year. Three credits.

First term, lec. Tu. Th. Sat. 10:10; second term, lab. Tu. Th. Sat. 11:50 to 2:20

*See Farm Mechanics, page 96, for related work.*

#### AGRICULTURAL SURVEYING

PROFESSOR R. B. WEST

1. FARM SURVEYING. This course is designed primarily for the students of agriculture. Practice is given in the handling of surveying instruments, in the running of land lines and ditch lines, in the grading and leveling of land, the making of profiles and the laying out of tile drains. One recitation, two laboratory periods, second term. Three credits. Prerequisite, Surveying 1.

Lec. Wed. 1:30; lab. Wed. Fri. 2:20 to 4:50

2. CANAL AND ROAD SURVEYING. In this course instruction and practice are given in the particular application of the surveying methods used in the laying out and construction of canals and roads. Three hours, one term. Three credits. Prerequisite, Surveying 1.

3. SOIL AND OTHER AGRICULTURAL SURVEYS. Instruction, under a specialist, in the methods of preparing maps of a given agricultural area, and surveys of the various agricultural interests within the area. Three hours, one term. Three credits.

4. MAPPING. The aim of this course is to give practice in

the mapping of the various kinds of surveys that may be encountered by the agricultural engineer. Two laboratory periods a week. Two credits. Second term.

Tu. Th. 2:20 to 4:50

#### RURAL ARCHITECTURE

PROFESSOR R. B. WEST

1. FARM STRUCTURES. . . A course dealing with the arrangement, design, and construction of barns, stables, poultry houses, silos, fences, gates, and other farm outbuildings. Three hours, first term. Three credits.

Tu. Th. Sat. 1:30

2. FARM HOMES. This course deals with methods of arranging and planning houses suited to the conditions of the farm. Special attention is given to houses within the reach of the average farmer. Three hours, second term. Three credits.

3. MATERIALS OF CONSTRUCTION. A study of the materials used in construction: their strength and resistance, action under various methods of loading, the stress set up in beams, columns, and girders; and problems in the design of structural parts. Special attention is given to building materials which are available to Utah farmers. Three hours, first term. Three credits.

Tu. Th. Sat. 9:20

4. MECHANICS OF FRAMED STRUCTURES. This course deals with the strength and design of joints in timber framing. Holding power of nails, screws, drift bolts, etc. Design of beams, columns, and simple trusses in wood. Prerequisite, Trigonometry. Three credits. Second term.

Tu. Th. Sat. 9:20

5. CONCRETE CONSTRUCTION FOR AGRICULTURAL PURPOSES. A study of various mixtures of cement and the uses that can be made of them. The use of concrete in the making of barns, water

troughs, posts, etc., is discussed. Two hours, second term. Two credits.

Lec. Wed. 10:10; lab. Tu. Th. 2:20 to 4:50

6. REINFORCED CONCRETE. This course embraces the design of beams, columns, and floor slabs in reinforced concrete, and the application of the principles of design to retaining walls, cisterns, etc. Three credits.

7. DRAFTING. A course in drawing plans for buildings, including detailed drawings of parts, cross sections, etc. This course deals with the technique of drafting rather than with creating plans. Three hours, one term. Three credits.

8. PLANNING OF FARM STRUCTURES AND HOMES. This course treats of the making of plans for farm buildings, including complete specifications, cost of materials, and erection. Time and credit to be arranged with instructor.

#### RURAL SANITATION

PROFESSOR E. G. PETERSON

1. SANITATION. A general course in the principles of sanitation in relation to rural homes and communities: the nature of disease; methods of its spread and means of prevention; the most sanitary methods of arranging and constructing farm buildings; methods of disinfecting. Prerequisite, Bacteriology 1. Three hours, second term. Three credits.

Tu. Th. Sat. 11:50

2. RURAL WATER SUPPLIES AND WASTE DISPOSAL. Methods of supplying farm and rural communities with sanitary water. Special attention is given to Utah conditions and to the methods of handling the waste of the farm and the small town. Three recitations, one term. Three credits.

3. SANITARY ANALYSIS. This course deals with methods of making chemical and bacterial analysis of water, milk, etc., for

sanitary purposes. It is intended primarily as a training for inspection work. Prerequisite, work in chemistry and bacteriology. One lecture and two laboratory periods, one term. Three credits.

4. DISEASE PREVENTION. Lectures on this subject by competent physicians and others. Special attention is given to rural conditions. The course is of a popular nature and is open to all students of the College. Two hours, first term. Two credits.

Wed. Fri. 11:50

5. SANITARY STATISTICS. A course in vital statistics, showing the effects of sanitary precautions on the death rate. Comparisons are made of the death rate of cities and country communities. Methods of getting statistics and determining death rate are also discussed. Two hours, one term. Two credits.

#### AGRICULTURAL TECHNOLOGY

PROFESSOR PORTER

1. MANUFACTURE OF AGRICULTURAL PRODUCTS. This is a general course dealing with the conversion of the raw materials of the farm into finished products. The course covers in a general way the processes of manufacturing beet sugar, starch, soap, vinegar, pickles, alcohol, molasses, commercial fertilizers, paper, turpentine, lime, cement, and glass. Special attention is given to the factories in operation in Utah and to industries that could profitably be developed in this State. Visits to several factories are required. Prerequisites, Chemistry 1 and 3. Three hours, second term. Three credits.

Wed. Fri. 11:50

2. MANUFACTURE OF BEET SUGAR. This course deals with the practical methods of obtaining sugar from the beets. Factory methods are studied in detail from the standpoint of the student who intends to go into sugar factory work. The chemical work of determining the acidity, alkalinity, and purity of the juice in

various states, and the estimates of sugar by the polariscope, are given careful attention. Prerequisites, Agricultural Technology 1 and Chemistry 2. Two lectures and one laboratory period, first term. Three credits.

Wed. Fri. 11:50

3. **MILLING AND CANNING INDUSTRIES.** Two lectures and one laboratory period, second term. Prerequisites, Agricultural Technology 1 and Bacteriology 1. Three credits.

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## AGRONOMY

PROFESSOR HARRIS

MR. STEWART

MR. STUCKI

MR. MAUGHAN

a. **ELEMENTARY AGRONOMY.** A general course dealing with the principles of crop production, designed for students with little or no previous training in the sciences who wish in a short period to get practical information regarding crops and soils. Lectures, recitations, and written reports. Four hours, first term. Four credits.

Lec. Tu. Th. Sat. 9:20; lab. Wed. 2:20 to 4:50

3. **CEREAL CROPS.** Lectures, recitations, and laboratory practice on the history, cultivation, production, and marketing of cereal crops. The course, designed to give an intimate knowledge of the plants, forms a basis for judging their products. Two lectures and one laboratory period, first term. Three credits.

Lec. Wed. Fri. 10:10; lab. Th. 2:20 to 4:50

4. **FORAGE, ROOT, AND MISCELLANEOUS CROPS.** Lectures, recitations, and laboratory practice on alfalfa, clovers, grasses, sugar beets, potatoes, and other crops. In the laboratory the

plants and their products are studied in detail. Field trips are taken. Two lectures and one laboratory period, second term. Three credits.

Lec. Wed. Fri. 10:10; lab. Th. 2:20 to 4:50

5. SEEDS AND WEEDS. A course dealing with seeds and the impurities found in them. A study is made of the quality and preservation of seeds; their storage, shrinkage, vitality, germination, methods and depth of planting, and methods of treatment to prevent disease. The common weeds of Utah are studied, and methods of identifying and eradicating them discussed. Classroom, laboratory, and field work. One laboratory and one class period each week. Two credits. Prerequisites, Botany 1 and Agronomy 3.

*Alternates with Agronomy 6. Not given in 1914-1915.*

6. JUDGING MARKET TYPES OF CROPS. In this course a study is made of the various methods of scoring grains and other crops. Considerable practice is given in judging crops and in identifying varieties. The types demanded by the market are studied in particular. One class and one laboratory period each week, first term. Two credits. Prerequisites, Agronomy 3 and 4.

*Alternates with Agronomy 5.*

Lec. Th. 10:10; lab. Fri. 2:20 to 4:50

8. SOIL MANAGEMENT. A practical course, dealing with the application to actual farming operations of the principles studied in Chemistry 5a. It is designed to meet the needs of farm managers, giving them a knowledge of the most approved methods of handling western soils. It treats such subjects as time and method of plowing, and other tillage operations; the rotation of crops; the methods of conserving soil moisture; methods of manuring; the improvement of alkali soils; and such other practical operations and problems as are encountered in the management of soils. Lectures and demonstrations. Prerequisite, Chemistry 1. Three hours, first term. Three credits.

Lec. Wed. Fri. 8:30; lab. Tu. 2:20 to 4:50



9. **COMPARATIVE SOILS.** A study of the soils of the world compared as to their origin, composition, and agricultural value. The various soil provinces and types of the United States, and especially those of the arid regions, are investigated and the methods of their classification discussed. The soils of Utah are studied in detail; the crops adapted to them, and the treatment they should receive are given special attention. Prerequisite, Agronomy 8. Two hours, second term. Two credits.

*Alternates with Agronomy 10.*

Lec. Tu. 9:20; lab. Wed. 2:20 to 4:50

10. **ADVANCED SOILS.** A discussion of the chemical, physical, and biological properties of soils. The course treats of the methods of soil investigation and of theories of fertility; the relation between soils and crops, and the ultimate effect of certain soil treatments. Special study is made of the soil solution and of the movements of moisture in the soil. Prerequisite, Agronomy 8. Lectures, second term. Two credits.

*Alternates with Agronomy 9. Not given during 1914-1915.*

11. **ADVANCED LABORATORY IN SOILS.** Experiments covering somewhat the same field as covered by the lectures in Agronomy 10. Exercises are given dealing with the soil solutions, the fixation of substances added to the soil, soil moisture relations, alkali, and similar subjects. Agronomy 10 must precede or accompany this course. Two hours or more, second term. Credits to be arranged.

12. **MANURES.** This course deals with the sources, uses, and effects of artificial fertilizers and amendments; the kinds, compositions, functions, and deterioration of farm manures, and the economical methods of their use. Experiments with manures, conducted at different stations, are discussed in detail. Prerequisite, Agronomy 8. One hour, second term. One credit.

Tu. 8:30

14. **DRY-FARMING.** Instruction in the methods best adapted .

to the growing of profitable crops on arid lands; the treatment of the soil, including the conservation of soil moisture by deep and fall plowing, mulching, etc.; the soils and crops best adapted to arid farming; and the regions offering favorable conditions for its successful practice. The experiments carried on at the arid experimental farms of the State are discussed. Three hours, first term. Three credits.

Tu. Th. Sat. 8:30

15. IRRIGATION PRACTICE. See Irrigation and Drainage 2.

16. FARM MANAGEMENT. This course meets the needs of those who expect to conduct practical farming operations. It treats of the selection and laying out of a farm, the kind of farming which should be carried on in a given locality, the proper balance between the various activities of the farm, the rotation of crops, raising and marketing different kinds of crops and animals, keeping farm records, the profitable employment of labor, and similar questions of profitable farming. Its purpose is to bring together the facts learned in the various technical courses and apply them to a rational system of farming. Prerequisites, economics and as many courses as possible in agronomy, animal husbandry, and horticulture. Three hours, second term. Three credits.

Lec. Wed. Fri. 8:30; lab. Tu. 2:20 to 4:50

19. SEMINAR. Each week the advanced students of agronomy meet for one hour to review current agronomic literature, discuss agricultural problems, and report on assigned topics. Required of seniors specializing in agronomy; open also to juniors. One hour throughout the year. Two credits.

Wed. 11:50

20. RESEARCH. Seniors specializing in agronomy may elect research work in any branch of the subject. Time and credit to be arranged with instructor.

## ANIMAL HUSBANDRY

PROFESSOR J. T. CAINE III

PROFESSOR CARROLL

ASSISTANT PROFESSOR ALDER

ASSISTANT PROFESSOR GEO. B. CAINE

MR. EGBERT

a. MARKET TYPES. The judging of market types of horses, cattle, sheep, and swine. Some score card practice is given, but most of the work is comparative judging of groups of animals. Two class and two laboratory periods, second term. Four credits.

*Prerequisite for all other courses in animal husbandry.*

Lec. Wed. Fri. 10:10; lab. Wed. Fri. 11:50 to 2:20

2. BREED TYPES. The work covers the origin, history, and characteristics of the different breeds of horses, cattle, sheep, and swine, especial stress being laid upon their adaptability to Western conditions. In addition instruction is given in the judging of representatives of different breeds according to their official standard. Three lectures throughout the year. Six credits.

Tu. Th. Sat. 9:20

3. ANIMAL NUTRITION. A brief study of the anatomy and physiology of the digestive system; the purpose of nutrition; the theory and practice of feeding, with especial reference to Utah conditions. Three lectures throughout the year. Six credits.

Tu. Th. Sat. 8:30

4. PRINCIPLES OF BREEDING AND HERD BOOK STUDY. The laws of heredity, correlation, reversion, variation, fecundity; the methods of breeding, cross-breeding, in-and-in breeding, and selection. This work is followed by a study of the various herd books and of the pedigrees of noted individuals of the important breeds. Prerequisite, first term of Zoology 3. Three lectures, second term. Three credits.

Tu. Th. Sat. 1:30

5. **ADVANCED STOCK JUDGING.** A course in the judging of groups of animals of all classes. Attendance at the State Fair and at all accessible county fairs is required as part of this course. Prerequisites, Animal Husbandry 1 and 2. Two laboratory periods, first term. Two credits.

Wed. Fri. 2:20 to 4:50

6. **BEEF CATTLE MANAGEMENT.** A discussion of the practical methods of beef production, including a consideration of range practice, feeding for market, fitting for show, and general care and management. Two class periods, first term. Two credits.

Wed. Fri. 8:30

7. **HORSE MANAGEMENT.** A discussion of market types of horses, handling of breeding and growing horses, fitting for show and sale, and practical methods of handling and training horses. Two class periods, second term. Two credits.

Wed. Fri. 8:30

8. **SWINE MANAGEMENT.** The management of the breeding herd, fattening for market, and fitting for show. Two class periods, first term. Two credits.

Wed. Fri. 9:20

9. **SHEEP MANAGEMENT.** General care of sheep on range and farm, fattening for market, fitting for show, and work in grading and sorting of wool. Two class periods, second term. Two credits.

Wed. Fri. 9:20

10. **SEMINAR.** The advanced students of animal husbandry and dairying meet once a week with instructors of the department to review the current literature and special phases of these subjects. Two long reports on assigned subjects are required. One hour throughout the year. Two credits.

*See Dairying, page 87, for related work.*

## POULTRY HUSBANDRY

ASSISTANT PROFESSOR ALDER  
MR. EGBERT

1. GENERAL POULTRY. A general study of the different breeds, judging and breeding, incubation, brooding, housing, feeding, and marketing. Two recitations and one laboratory period, second term. Three credits.

Lec. Tu. Th. 9:20; lab. Fri. 2:20 to 4:50

2. INCUBATION AND BROODING. Practical and experimental work in incubation and brooding. A study of the important factors which influence the hatching quality of eggs, both before and during the incubation period. Prerequisite, Poultry 1. One recitation and two laboratory periods, one term. Two credits.

3. POULTRY MANAGEMENT. The housing, care, feeding, and management of different breeds, with special attention to Western conditions. Prerequisites, Poultry 1 and Chemistry 1. One recitation and laboratory work according to special appointment. Credit according to amount of work done.

4. BREEDS AND BREEDING. A study of the origin and development of the more important breeds and varieties of poultry; practice in judging; a review of the literature on breeding for utility and exhibition purposes. Prerequisites, Poultry 1, Zoology 2 and 3.

5. ANATOMY, PHYSIOLOGY, AND DISEASES OF POULTRY. The work on diseases consists principally of the causes and methods of identification and prevention. Prerequisite, Poultry 1. Two recitations and one laboratory period throughout the year. Three credits.

## ART

CALVIN FLETCHER, PROFESSOR OF APPLIED ART  
 J. S. POWELL, ASSOCIATE PROFESSOR OF FINE ART

## FINE ART

1. Free Hand Drawing. Nature study visualization, arrangement, and composition. Three two-hour periods a week, first term. Two credits. Prerequisite to Applied Arts 21.

Tu. Th. Sat. 9:20 to 11

2. Structural Free Hand Drawing. Modeling and design, arranged for students in mechanic arts. Three two-hour laboratory periods throughout the year. Four credits.

Tu. Th. Sat. 11:50 to 1:30

3. History of Art. A lantern-slide lecture course on the evolution and development of painting, sculpture, and architecture. Two lectures throughout the year. Four credits.

Wed. Fri. 11:50

4. Aesthetics. A study of the principles underlying art. Two lectures throughout the year. Four credits.

Wed. Fri. 10:10

5. STUDIO. *Before registering students should consult with instructor in charge.*

Sec. a, one credit (three hours for one credit); sec. b, two credits; sec. c, three credits. Students may elect one or more sections of studio work in any of the following subjects:

Drawing. Drawing from the antique, animals, plants, insects, and ornament.

Painting. Painting in oils, water colors, and pastels from still life, landscape, animals, and the draped model.

Sculpture. Modeling in wax and clay, and casting in plaster—from ornament, antique, and life.

Illustration. Book, magazine, and newspaper illustration; cartooning and caricature.

Illustration for Advertising. Designing posters and pictorial advertisements for newspapers, magazines, etc. Criticism of such work.

Illustration for scientific purposes. There is a great demand for men and women especially trained as illustrators in the different divisions of science. The art department is offering, conjointly with the departments of agronomy, botany, and entomology, etc., this course in illustration.

Pictorial Composition and the Critical Judgment of Pictures  
This is a study of the arrangement of spaces, forms, and color in the composing of a picture. The composition of an esial picture and of mural decorations. This course is especially adapted to the layman, the photographer, and the professional artist.

Daily, 12:40 to 4

#### APPLIED ART

21. Continuation of Fine Art 1, with special attention to pattern design and design for art needlework. Two laboratory periods, second term. Two credits.

Tu. Th. Sat. 9:20 to 11

22. Household furnishing and design as related to household objects. Lectures and demonstrations with applications in stenciling, block-printing, simple needle craft, and painting. The whole question of beauty as related to the smaller homes is given careful consideration. Three lectures and two laboratory periods throughout the year. Ten credits.

Lec. Tu. Th. Sat. 12:40; lab. Wed. Fri. 1:30 to 4

23. History and development of the house, its furniture and furnishings through the ages. Two lectures throughout the year. Four credits.

Wed. Fri. 1:30

24. Costume design, history, and simple illustration. Two laboratory periods throughout the year. Four credits.

Wed. Fri. 8:30 to 11

25. Interior design and decoration. This course is designed to meet the needs of tradesmen. Wall tinting and decoration, house painting, paper hanging, furnishing, and draping. Hours and credit to be arranged.

26. Furniture, ornamental iron design, and decoration, including work in carving, marquetry or inlay, and ornamental metal as applied to hinges, handles, escutcheons, key plates, etc.

Students in this course may emphasize the ornamental iron design or furniture work according to their special interests. Two hours daily throughout the year. Eight credits.

Daily, 11:50 to 1:30

27. Studio. *Hours and credits to be arranged with the instructor in charge.*

Sec. a, one credit (three hours' work for one credit); sec. b, two credits; sec. c, three credits.

Students may elect one or more sections of work from any of the following lines:

Pottery, including throwing, building, turning, casting, glazing, and decoration.

China decoration and design, including tinting, grounding, gold lustre, enameling, firing, etc.

Copper, brass, and silver smithing and jewelry. The underlying principles of metal treatment, including raised forms, filigree, soldering, and repousse, carving, engraving, beading, and enameling.

Basketry, weaving, and beadwork.

Leather work and bookbinding; tooling, etching, piercing; dyeing, etc.

Show cards and sign writing.



Advanced fabric decoration, combining block-printing, stenciling, and needle craft.

Architectural Composition. The study of architectural styles and composition of exterior and interior details, and landscape gardening.

Daily, 11:50 to 4

*Courses 21, 22, 23, and 24, are designed especially for the home economics work; courses 25 and 26, for mechanic arts work.*

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## BACTERIOLOGY

PROFESSOR GREAVES

MR. SMITH

1. GENERAL BACTERIOLOGY. The preparation of media, sterilization, staining, classification, general biology, cultural characters of typical forms, quantitative and qualitative methods of examination; function, distribution, cultivation, and isolation of important forms. The relation of bacteria to the various phases of agriculture receives careful consideration. Two lectures and two laboratory periods, each term. Four credits.

Lec. Wed. Fri. 11:50; lab. Wed. Fri. 2:20 to 4:50

2. HOUSEHOLD BACTERIOLOGY. After a brief survey of bacteriological methods and the biological characters of typical forms, the bacteria are studied in relation to household economy: bacteria in milk, water, and other foods; milk and water contamination; effects of cooling and pasteurization upon milk; yeasts, molds, and fermentation; bacteriology in relation to canning and preservation; thermal death point of important household species; action of disinfectants. Two lectures and two laboratory periods, first term. Four credits.

Lec. Wed. Fri. 8:30; lab. Tu. Th. 2:20 to 4:50

3. **PATHOGENIC BACTERIOLOGY.** A course covering the fundamentals of the subject: morphology, classification, biology, distribution, function, cultural and staining characters, methods of cultivation, theories of immunity, and the principles of applied bacteriology. A discussion of disease-producing organisms. Lectures and laboratory work, one term. Three credits.

*Not given in 1914--1915.*

4. **SOIL BACTERIOLOGY.** A course covering the principles of soil bacteriology and fitting the student for original investigation: exercises involving questions of the relation of depth, moisture, character of soil temperature, chemical reaction, and aeration to bacterial life; ammonification, nitrification, denitrification, nitrogen fixation, cellulose fermentation, soil inoculation, including the isolation, cultivation, and detailed examination of the organisms causing the changes. Chemical methods of interpreting bacterial fermentations are studied in considerable detail. Prerequisite, Bacteriology 1. Laboratory work, lectures, and reports. Six hours, second term. Three credits.

Tu. Th. 2:20 to 4:50

5. **DAIRY BACTERIOLOGY.** A course covering the principles of dairy bacteriology. A consideration of the bacteria of milk, butter, and cheese; infectious diseases in their relation to the dairy; contamination by air, water, and utensils; desirable and undesirable fermentations. Prerequisite, Bacteriology 1. Laboratory work, lectures, and reports, first term. Three credits.

Tu. Th. 2:20 to 4:50

6. **RESEARCH WORK.** The laboratory and library facilities are especially arranged to meet the needs of advanced students desiring to undertake bacteriological investigation in agriculture household science, the industries, sanitary science, and veterinary science. Time and credit to be arranged.

*See Physiology, and Physiological Chemistry, page 130, for related work.*

**BOTANY**

PROFESSOR HILL

MR. RICHARDS

MR. COOK

1. GENERAL BOTANY. A study of the nature and function of plant structure, and of the types of plants from lowest to highest, including the principles of classification and the relation of plants and crops to their environment. Two lectures and two laboratory periods throughout the year. Eight credits.

*Prerequisite for all other courses in botany.*

Section 1. Lec. Wed. Fri. 8:30; lab. Wed. Fri. 2:20 to 4:50

Section 2. Lec. Wed. Fri. 10:10; lab. Tu. Th. 2:20 to 4:50

Scientific Drawing (Art 5) should precede or accompany this course. Laboratory sections limited to thirty students.

2. FLOWERING PLANTS. This course is designed to teach students to know our common plants and their relationships. Examples from the most representative plant families are studied in detail. Special emphasis is given to economic plants. Two laboratory periods a week. Twelve weeks in the fall and in the spring. Three credits.

Mon. 9 to 3.

3. HISTOLOGY. Includes a study of the cell and plant tissues, together with histological technique, sufficient to prepare permanent mounts. Two lectures and two laboratory periods, second term. Four credits.

*Not given in 1914--1915.*

4. PLANT PHYSIOLOGY. A study of water relations; nutrition; food products, their manufacture and assimilation; enzyme action; respiration; fermentation; toxicity; growth; growth movements; temperature and light relations; reproduction and plant propagation, etc. Two lectures and one laboratory period through-

out the year. Six credits. Prerequisites, Botany 1 and Chemistry 3. (Chemistry 3 may accompany the course.)

Lec. Wed. Fri. 9:20

Lab. Section 1. Tu. 2:20 to 4:50

Lab. Section 2. Th. 2:20 to 4:50

5. PLANT PATHOLOGY. A general study of the history, nature, cause and control of plant diseases. One lecture and two laboratory periods throughout the year. Six credits.

Lec. Wed. 1:30; lab. Wed. Fri. 2:20 to 4:50

6. ECONOMIC BOTANY. A course considering food, fibre, medicinal and spice plants, and their principal products with reference to the industries. Two lectures and one laboratory period, one term. Three credits. Prerequisites, Botany 2 and 4.

*Not given in 1914--1915.*

7. ECOLOGY. A study of the relation of temperature, moisture, light, soil, and the other environmental factors to vegetation and the structural modification of plants adapted to various conditions. Two lectures, first term. Two credits. Prerequisite, Botany 1.

Tu. Th. 12:40

8. CROP ECOLOGY. A continuation of Course 7, in which special attention is given to the relation of the various environmental factors to the production of forest and grass land, wheat, corn, potatoes, sugar beets, peaches, apples, garden truck, cotton, tobacco, sugar cane, and other temperate and subtropical crops. Two lectures, second term. Two credits. Prerequisite, Botany 1

Tu. Th. 12:40

9. FORESTRY. A general course considering the principles of forest management, forest conditions and possibilities in Utah and the United States; the relation of the forest covering to the conservation of water, forest range plants and conditions, the principal timber trees of Utah and the United States, and proper methods of cutting and of handling timber. Prerequisites, Botany 1, 2, 4, and 7.

*Not given in 1914--1915.*

10. SEMINAR. For advanced students. A review of current literature. One hour a week. Two credits. Required of juniors and seniors in botany.

Fri. 1:30

11. RESEARCH. Students specializing in botany are given opportunity in their junior and senior years to do original investigation. Credit according to time.

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## CHEMISTRY

PROFESSOR STEWART

PROFESSOR PORTER

ASSISTANT PROFESSOR JOHN STEWART

MR. HIRST

1. GENERAL CHEMISTRY. This course deals with the fundamental theories of chemistry, and their applications to the arts and manufactures. The laws of chemical combinations, the writing of reactions, and the solving of chemical problems are given careful consideration. Three recitations and two laboratory periods throughout the year. Ten credits.

Sec. 1. Lec. Tu. Th. Sat. 11:50; lab. Tu. Th. 2:20 to 4:50

Sec. 2. Lec. Tu. Th. Sat. 12:40; lab. Wed. Fri. 2:20 to 4:50

2. ORGANIC CHEMISTRY. A brief survey of the more important reactions and compounds of the fatty and aromatic series of hydro-carbons and their derivatives. Special attention is paid to the chemistry of the fats, the carbohydrates, the proteins, the amino acids, and the dyes. Three recitations and two laboratory periods, first term. Five credits.

3. ADVANCED ORGANIC CHEMISTRY. In this course a systematic study is made of the compounds of carbon from the point of view of systematic organic chemistry. This course is designed

for students who intend to make chemistry a profession. Five recitations, first term. Five credits.

Daily. Sec. 1. 8:30; sec. 2. 9:20

4. **ADVANCED QUALITATIVE ANALYSIS.** This is mainly a laboratory course in qualitative analysis. One lecture and two laboratory periods throughout the year. Six credits.

Lab. Wed. Fri. 2:20 to 4:50; lec. Wed. 11:50

5. **SOILS.** A study of the methods of the analysis of soils in their relation to crop production; soils of the arid and humid regions; alkali soils, their nature and composition, utilization and reclamation; soil fertility and methods of maintenance; the value, composition, and preservation of barn-yard manure. Prerequisite, Chemistry 1. Five hours, second term. Five credits.

Daily. Sec. 1. 8:30; sec. 2. 9:20

6. **QUANTITATIVE ANALYSIS.** After becoming somewhat familiar with the common methods of quantitative analysis, the student analyzes various products; such as, milk, butter, etc. Three laboratory periods throughout the year. Six credits.

Tu. Th. Sat. 2:20 to 4:50

7. **HISTORY OF CHEMISTRY.** Two lectures a week throughout the year. Four credits.

8. **INDUSTRIAL CHEMISTRY.** Lectures and assigned reading on special chemical industries; e. g., the manufacture of sulphuric acids, soda, commercial fertilizers, lime and cement, glass and porcelain, pigments, sugar, starch, alcohol, soap, and explosives. Prerequisite, Chemistry 1. Three hours throughout the year. Six credits.

9. **RESEARCH WORK.** The laboratories of the College and the Experiment Station are open to students with the necessary preparation who desire to pursue independent studies in chemistry. The research carried on by the chemistry department of the Experiment Station is of great aid to students engaged in the solution of scientific problems. Time and credit to be arranged with the instructor.

10. SPECIAL COURSES IN QUANTITATIVE ANALYSIS. Courses are offered in special phases of quantitative analysis to students who are qualified: a. water analysis; b. food analysis; c. soil analysis; d. urine analysis; e. gas analysis. Time and credit to be arranged with the instructor.

11. SEMINAR. Members of the chemical faculty and senior students meet once a week for a discussion of assigned problems in chemistry.

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## DAIRYING

PROFESSOR CARROLL  
ASSISTANT PROFESSOR G. B. CAINE  
MR. BINGHAM

a. FARM DAIRY PRACTICE. An elementary practical course dealing with the secretion and composition of milk, the sampling and testing of milk and cream, and the making on the farm of butter and cheese. Two lectures and one laboratory period. Three credits.

Lec. Wed. Fri. 10:10; lab. Wed. 11:50 to 2:20

1. ELEMENTS OF DAIRYING. The secretion and composition of milk; testing for fat, acid, and adulterants; dairy sanitation; pasteurization; separation; making of butter and cheese. Prerequisite, Chemistry 1. Two lectures and one laboratory period, second term. Three credits.

Lec. Wed. Fri. 11:50; lab. Fri. 12:40 to 2:20

3. DAIRY FARM MANAGEMENT. This course consists of a brief review of the various breeds of dairy cattle, and methods of selecting them and starting a dairy herd. Each student is required to submit an original plan of a dairy farm, estimating the values of the different sections of property, the expense of operation, and profits to be derived from the business. Prerequisite, Animal Husbandry 2. Two lectures throughout the year. Two credits

Wed. Fri. 1:30

4. BUTTERMILKING. A course designed to meet the needs of creamery men. Prerequisite, Dairying 1. One lecture and two laboratory periods throughout the year. Six credits.

5. CHEESEMAKING. A course for cheese factory operators. A study of the manufacture of the different kinds of cheese. Prerequisite, Dairying 1. One lecture, and one laboratory period of six hours throughout the year. Six credits.

7. RESEARCH WORK. A study of various important dairy subjects; a digest of recent dairy work of the experiment stations. Only advanced students are allowed to take this course. One hour throughout the year. Two credits.

*See Animal Husbandry, page 75, for related work.*

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## DOMESTIC ART

ASSISTANT PROFESSOR COOK  
MISS KERR

c. DRESSMAKING. This course includes the making and use of patterns and the choosing and economical cutting of materials. Each student makes a skirt and a waist of woolen or silk material, and also a fitted lining. Prerequisites, first-year high school sewing and Art 2. Eight hours, first term. Three credits.

Tu. Th. Fri. Sat. 9:20 to 11

d. DRESSMAKING. A continuation of course c. Each student fits and finishes a one-piece gown. Eight hours, second term. Three credits.

Tu. Th. Fri. Sat. 9:20 to 11

e. PRACTICAL SEWING. This course is designed for students especially interested in practical sewing: the fundamental principles of hand and machine sewing; the care and use of different makes of machines; the drafting of patterns; and the use



of bought patterns. Each student makes an apron, a suit of underwear, and a wash dress. Eight hours throughout the year. Six credits.

1. ART NEEDLE WORK. This course deals with the application of color and design to textiles; the teaching of the fundamental stitches of needlework; the marking of household linen; French embroidery; the designing and making of a sofa pillow cover or table runner. Prerequisites, Art 2 and 4. Six hours, first term. Two credits.

Tu. Th. Sat. 11:50 to 1:30

2. ART NEEDLE WORK. A continuation of course 1. Six hours, second term. Two credits.

Tu. Th. Sat. 11:50 to 1:30

3. ADVANCED DRESSMAKING. This course includes the study of materials; their economic, artistic, and hygienic values; dress as a factor in life; history of costume; modeling in paper and crinoline from copies and original designs; the making of two costumes. Prerequisites, Domestic Art c and d, and Art 4. Lectures and laboratory work. Six hours throughout the year. Six credits.

Wed. 9:20 to 11

Wed. Fri. 11:50 to 1:30

4. MILLINERY, ELEMENTARY. This course includes practice in designing and drafting patterns for hats; construction of frames of buckram, rice net, or wire; the covering and furnishing with velvet, silk, nets, straws, etc. Selection of materials as to suitability and durability. Demonstrative lessons in the renovating of foundation materials. Four hours throughout the year. Four credits.

Wed. Fri. 11:50 to 1:30

5. DESIGNING AND MODELING. This course includes line and design as adapted to various figures; copying of designs in crinoline or cambric; modeling and working out of original designs in correlation with Art 13. Prerequisites, Domestic Art 3,

Art 2 and 4. Lectures and laboratory work. Four hours throughout the year. Four credits.

Tu. Th. 2:20 to 4

6. **ADVANCED MILLINERY.** Demonstrative discussions and practical work. Four hours throughout the year. Four credits (Laboratory fee of \$1)

Wed. Fri. 1:30 to 3:10

This course gives emphasis to the making of elaborate millinery, paying special attention to lines and color combinations most suited to the individual. Demonstration in the draping and trimming of hats by each student. Trimmings made of chiffon, elaborate tinsel, velvet, etc. Special attention given to the care, placing, and sewing on of ostrich feathers. Students provide materials for hats, subject to approval of instructor. Prerequisites, Art 2 and 4, and Domestic Art 4.

7. **TEXTILES.** The study of the beginning of the textile industry; examination of textile fibres under the microscope; the testing of manufactured materials for adulteration; and the effect of laundry reagents on textiles. Prerequisites, Chemistry 2, and Economics 2. Two laboratory periods, first term. Three credits.

Tu. Th. 11:50 to 1:30

8. **TEXTILES.** (Advanced course.) A continuation of course 7. The economic problems involved in the purchase of textiles, and a complete quantitative chemical analysis of wool, cotton, silk, and linen fabrics. Second term. Prerequisite Domestic Art 7.

Tu. Th. 11:50 to 1:30

9. **SURVEY.** A critical review of domestic art work as given in other institutions. Three hours, second term. Three credits.

Tu. Th. Sat. 10:10

10. **FULL TIME COURSE IN DRESSMAKING.** This course is planned to give thorough and practical training to those who wish to become seamstresses or dressmakers. The classes are organized in September, November, February, and April, and continue

for nine consecutive weeks. Daily sessions from 9 a. m. to 12 a. m., and from 1 to 5 p. m. All applicants for full time courses should be at least sixteen years of age and experienced in plain hand and machine sewing. The number of students is restricted to twenty; therefore, application should be made at an early date. Fee, \$10

The instruction consists of the selecting of materials for house dresses; the drafting, fitting, and making of one house dress or shirt-waist suit; and the drafting and designing of skirts, waists, sleeves, collars, children's clothing, modeling in paper and crinoline, etc.; the study of form and color; the combination of different dress fabrics and trimmings; design and simple hand decoration; the proper selection and use of striped and figured materials; draperies and their uses; consideration of textures best adapted to the reception and evening dress; and the planning, drafting, cutting, fitting, and finishing of at least four one-piece gowns.

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## ECONOMICS

PROFESSOR THOMAS  
PROFESSOR HENDRICKS  
MR. BROOKE

1. **ELEMENTS OF ECONOMICS.** This course explains the laws of man's economic activity. It is the basis of a scientific understanding of industrial conditions. Some of the topics studied are: economic want, value, rent, wages, profits, interest. Three hours throughout the year. Six credits.

2. **GENERAL ECONOMICS.** This course treats practically the same subjects as Economics 1, but in a more thorough manner. Three hours throughout the year. Six credits.

Tu. Th. Sat. 10:10

3. **HISTORY OF COMMERCE.** Its development in Egypt,

Greece, Rome, Florence, Medieval Europe; the commercial nations of modern times. Three hours throughout the year. Six credits.

4a. INDUSTRIAL RESOURCES. This course aims to give the student a thorough knowledge of the resources of the United States. Special attention is given to western agricultural, pastoral, mineral, and soil and water resources. First term. Three credits.

Tu. Th. Sat. 1:30

4b. MARKETING OF PRODUCTS. The methods now practiced in the organization of the selling branch of industrial and merchandising business. The principal subjects in this field are: publicity, agency, advertising, forms and correspondence, credits, and discounts. Three hours, second term. Three credits.

Tu. Th. Sat. 1:30

9. ADVERTISING. The channels of trade and the circulation of newspapers are discussed; the literature and typography of advertising, explained; the advertisements of newspapers and magazines, critically examined. Two recitations a week. Practical work in the Art department. Six credits.

12. AGRICULTURAL ECONOMICS. This course deals with the economic principles which underlie farm management, estate management, and agrarian legislation. Especially adapted to western conditions. Three hours, first term. Three credits.

Tu. Th. Sat. 11:50

15. A RESEARCH COURSE IN ECONOMICS. Time and credit to be arranged with the instructor.

16. COLLEGE ECONOMIC READINGS. Discussion of current economic literature. One credit, each term. Open to juniors and seniors.

*See Sociology, page 133, for related work.*

## ENGLISH

PROFESSOR PEDERSEN

MISS HUNTSMAN

MISS KYLE

MR. \_\_\_\_\_

*Papers written by students for other departments constitute a large part of the theme work required in courses in English.*

a. First year high school English, dealing with the principles of elementary correctness in oral and written composition. Five hours throughout the year. Ten credits.

Daily, 1:30

b. COMPOSITION AND CLASSICS. Second year high school English. Study of classics; oral and written composition, with emphasis on the paragraph. Five hours throughout the year. Ten credits.

Daily, 10:10

c. Third year high school English. Study of classics; practice in the various forms of discourse, oral and written. Three hours throughout the year. Six credits.

Sec. 1. Tu. Th. Sat. 9:20

Sec. 2. Tu. Th. Sat. 10:10

Sec. 3. Tu. Th. Sat. 12:40

6. HISTORY OF ENGLISH LITERATURE. A survey of the chief movements in the literature of Great Britain from the Anglo-Saxon period to the present day. The greater part of the time is given to the post-Elizabethan literature. Three hours throughout the year. Six credits.

Sec. 1. Tu. Th. Sat. 9:20

Sec. 2. Tu. Th. Sat. 11:50

7. RHETORIC. Special attention is given to the forms of prose discourse. The work consists chiefly of themes. Prerequisite, English 6. Two hours throughout the year. Four credits.

Sec. 1. Wed. Fri. 8:30

Sec. 2. Wed. Fri. 9:20

Sec. 3. Wed. Fri. 10:10

8. ADVANCED COMPOSITION. A course designed to develop the writer in the field of his choice. Considerable attention is given to grammatical and rhetorical details. Prerequisite, Eng. 7. Two hours throughout the year. Four credits.

Wed. Fri. 8:30

N. B. Prerequisite for all the following courses, except 22 and 24, English 6 and 7. Prerequisite, in addition, for 10, 11, 13, 15, and 19, one year of French or German.

10. SHAKSPERE. A detailed study of six plays: *Hamlet*, *Othello*, *The Winter's Tale*, *Twelfth Night*, *Antony and Cleopatra*, and *As You Like It*. Collateral reading, Sidney Lee's *Shakspeare's Life and Works*. Three hours throughout the year. Six credits.

Tu. Th. Sat. 1:30

11. THE MODERN DRAMA. A study of the stage of today, and of recent and living dramatists. Two hours throughout the year. Four credits.

Wed. Fri. 12:40

12. AMERICAN LITERATURE from Colonial times to the present, keeping in view contemporary development in English literature. Two hours throughout the year. Four credits.

Tu. Th. Sat. 9:20

13. THE ENGLISH NOVEL. Its origin, development, and most important types. Three hours throughout the year. Six credits.

Tu. Th. Sat. 12:40

15. GENERAL LITERATURE, or elementary comparative literature. A brief study of some of the masterpieces of world literature. Two hours throughout the year. Four credits.

Wed. Fri. 11:50

19. STUDIES IN THE NINETEENTH CENTURY POETS. A course in literary criticism. Three hours throughout the year. Six credits.

Tu. Th. Sat. 10:10

20. ARGUMENTATION AND DEBATING. Practical work in

briefing and debating. Two hours throughout the year. Four credits.

Wed. Fri. 1:30

22. ELOCUTION. First year work in reading and interpretation, for high school students. Three hours throughout the year. Six credits.

Tu. Th. Sat. 12:40

23. ADVANCED ELOCUTION. For college students. The principles of oral and literary expression, applied in the main to the interpretative study of masterpieces. Two hours throughout the year. Four credits.

Wed. Fri. 1:30

24. PUBLIC SPEAKING. The principles of effective public speaking taught and applied. Practical training in the various forms of public address. Three hours throughout the year. Six credits.

Tu. Th. Sat. 1:30

25. JOURNALISM. A study of magazine and newspaper writing, with special attention to college journalism. Two hours throughout the year. Four credits.

Wed. Fri. 12:10

*Alternates with English II.*

*Not given in 1914--1915.*

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## ENTOMOLOGY

PROFESSOR TITUS  
MR. HAGAN

1. ECONOMIC ENTOMOLOGY. An elementary course intended to give students a general knowledge of insects and their relation to man and his products, as well as of the best means of controlling injurious insects. Three hours, second term. Three credits.

Tu. Th. Sat. 11:50

2. **SYSTEMATIC ENTOMOLOGY.** A course in the structure and classification of insects. Students are required to collect, mount, and identify the more common varieties. The laboratory work consists of dissecting and classifying insects. Two lectures and one laboratory class throughout the year. Six credits.

Lec. Wed. Fri. 10:10; lab. Tu. 2:20 to 4:50

3. **ECONOMIC ENTOMOLOGY.** An advanced course in economic entomology, in which full treatment and special attention are given to insects of the intermountain region. Students are required to become familiar with methods of control used in other regions, and their results. Two lectures and one laboratory period. Three or six credits.

Lec. Wed. Fri. 12:40; lab. Wed. 2:20 to 4:50

4. **ENTOMOLOGICAL LITERATURE.** Each student is expected to investigate the literature on some particular insect. The general history of entomology is covered in a series of lectures. Prerequisite, Entomology 2 or 3. Three lectures throughout the year. Six credits. *Alternates with Entomology 5.*

Tu. Th. Sat. 9:20

5. **ADVANCED ENTOMOLOGY.** A course of research work for students intending to teach or to go into government or experiment-station work. A thesis on the classification and general economic consideration of some special group is required of each student. Prerequisite, Entomology 2 or 3. Three to six credits. *Alternates with Entomology 4.*

*See Zoology, page 136, for related work.*

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## FARM MECHANICS

PROFESSOR F. L. WEST

ASSISTANT PROFESSOR HUMPHERYS

1. **FARM MACHINERY.** A general course dealing with the machines used on the farm, their development, design, construction, operation, draft, durability, and care. The students are



made familiar with mechanical principles and are given practice in handling common farm machinery. Two lectures and one laboratory period, first term. Three credits.

Lec. Wed. Fri. 11:50; lab. Wed. 2:20 to 4:50

2. **FARM MOTORS.** A detailed study of the most modern types of farm motors. Special emphasis is placed on their care and operation, location and remedies of engine troubles, and the relative costs of the different units of farm power. Prerequisite, Physics 1. Two lectures and one laboratory period, second term. Three credits.

Lec. Wed. Fri. 11:50; lab. Wed. 2:20 to 4:50

3. **TILLAGE AND HARVESTING MACHINERY.** A detailed study of the various implements used in preparing the land for seed and in cultivating the crop. Considerable practice is given in expert building, operating and adjusting harvesting machinery. Prerequisite, Farm Mechanics 1 or its equivalent. One lecture and one laboratory period, second term. Two credits.

Lec. Fri. 12:40; lab. Tu. 2:20 to 4:50

4. **FARM APPLIANCES.** The course consists of the study and the application of the fundamental principles involved in babbiting, soldering, pipe fitting, tube-setting for steam boilers, packing valves, rope splicing, belt lacing, etc. One recitation and one laboratory period, first term. Two credits.

Lec. Fri. 12:40; lab. Tu. 2:20 to 4:50

*See Agricultural Engineering, page 65, and Physics, page 128, for related work.*

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## FINANCE AND BANKING

PROFESSOR HENDRICKS

PROFESSOR THOMAS

1. **MONEY.** A general survey of the laws and forms of money and credit; the money question; the money market; expe-

rience and legislation of recent times. Three hours, first term. Three credits.

Tu. Th. Sat. 8:30

2. **BANKING.** History and theory of banking in the United States and foreign countries; foreign exchanges. Three hours, second term. Three credits.

Tu. Th. Sat. 8:30

3. **PUBLIC FINANCE.** A course dealing chiefly with the principles underlying public expenditures, revenues, and administration. Three hours, first term. Three credits.

Tu. Th. Sat. 12:40

4. **TAXATION.** A study of the methods of federal and state taxation, including the customs and internal revenue duties; income, business, inheritance, general property and corporation taxes. Three hours, second term. Three credits.

5. **CORPORATION FINANCE.** A study of corporate incomes, expenditures, debts, and administration. A survey of the laws governing the growth of corporations, and the relation to the State. Three hours, first term. Three credits.

6. **FINANCIAL AND ECONOMIC HISTORY OF THE UNITED STATES.** The principal events of our political life are treated from the standpoint of their economic causation. The history of the tariff, money and banking, agriculture, manufacturing, etc., is taken up. Three hours throughout the year. Six credits.

Tu. Th. Sat. 10:10

7. **RAILWAY TRANSPORTATION AND PRACTICE.** The development of the railway system, railway finance, railway statistics; the theory of rates, methods of public control in Europe, Australia, and America. Three hours, second term. Three credits.

Tu. Th. Sat. 12:40

**FOODS AND DIETETICS**

ASSISTANT PROFESSOR SAUNDERS

MISS AGREN

1. **PREPARATION OF FOOD.** This course considers the principles of cooking; the buying of foods; the preparation and serving of meals within a given sum of money. Prerequisites or parallels, Chemistry 1 and Botany 1. Two laboratory periods throughout the year. Four credits.

Sec. 1. Tu. Th. 1:30 to 4

Sec. 2. Wed. Fri. 1:30 to 4

2. **EXPERIMENTAL AND DEMONSTRATIVE COOKERY.** This course includes lectures and laboratory work in the chemical composition of foods; the action of heat, cold, and alkali on foods; a study of recipes; cost of materials. Each student plans and gives one demonstration. Prerequisites, Domestic Science 1, Physics 1, Chemistry 2. One lecture and two laboratory periods throughout the year. Six credits.

Lec. Wed. 11:50; lab. Tu. Th. 1:30 to 4

3. **DIETETICS AND NUTRITION.** This course deals with the principles of human nutrition and the application of these principles to the diets of individuals and families under varying conditions of living. It includes a discussion of metabolism of food stuffs, dietaries and their construction, the relation of diet to health, and the economy of foods. Prerequisite, Chemistry 7. Two lectures and one laboratory period throughout the year. Six credits.

Lec. Wed. Fri. 10:10; lab. Wed. 1:30 to 4

4. **HOUSEHOLD CHEMISTRY.** The analysis of air, water, foods, and fuels. The course includes complete analysis of air, water, milk, cheese, butter, and flour; the detection of adulterants and preservatives; the analysis of fats; theory of saponification; the processes involved in the manufacture of soap; analysis of

leavening agents; and the chemistry of textiles. One lecture and six hours of laboratory work a week throughout the year. Six credits.

5. **PATHOLOGICAL NUTRITION.** A study of the fundamental principles of human nutrition and their application to dietaries, with special reference to the sick and convalescent. The planning of special menus to meet the individual requirements of hospital patients. Prerequisite, Foods 3. Three hours, first term. Three credits.

Tu. Th. Sat. 10:10

6. **DIET FOR CHILDREN.** A study of the food requirements of children from birth to adolescence. Prerequisite, Foods 3. Three hours, second term. Three credits.

Tu. Th. Sat. 10:10

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## GEOLOGY

PROFESSOR WILLIAM PETERSON

a. **PHYSIOGRAPHY.** Topics to be studied include: the earth as a body in space; surface structure; erosion, aggradation, etc.; the atmosphere and the influences of physiographic conditions on the development of an agricultural region. A brief study is made of the common rocks of Cache valley. Two hours throughout the year. Four credits.

Wed. Fri. 11:50

2. **GENERAL GEOLOGY.** A comprehensive survey of the field covered by dynamic, structural, and historical geology. Particular attention is paid to the changes the earth's surface is now undergoing and the forces which produce them, as a means of interpreting the past. The course includes laboratory study of the common rocks and rock-forming minerals, with special stress on the soil product resulting from rock disintegration. A part of the

second term's work is given to a careful study of the geological development of the North American continent. Field trips to points during fall and spring with written reports. Prerequisites, Chemistry 1, Zoology 2. Three hours throughout the year. Six credits.

Sec. 1. Tu. Th. Sat. 8:30

Sec. 2. Tu. Th. Sat. 9:20

3. **ECONOMIC GEOLOGY.** The first term is given to the study of the non-metals with special emphasis on mineral fertilizers. The second term is devoted to the study of metals, their origin and economic uses. The work of either term may be taken without the other. Prerequisite, Geology 2. Three hours throughout the year. Six credits.

Tu. Th. Sat. 10:10

4. **MINERALOGY.** A descriptive and determinative study of the more important minerals. The student is furnished with excellent specimens, for both tests and comparisons, of all minerals studied. The course includes a discussion of crystallography and the physical properties of minerals. The work is largely individual laboratory work in blow-pipe analysis and determinative mineralogy. Prerequisite, Chemistry 1. One recitation and two laboratory periods, one term. Three credits.

Lec. Wed. 9:20; lab. Wed. Fri. 2:20 to 4:50

5. **GEOLOGY OF GROUND WATER.** A study of structure to determine the cause of springs, artesian wells, etc., with the object of learning what structural characteristics will yield water, either through tunneling or boring. Prerequisites, Geology 2, Physics 1. Two hours, second term. Two credits.

Wed. Fri. 10:10

6. **ADVANCED PHYSIOGRAPHY.** Intended for students of college grade who wish to obtain a more complete knowledge of physiographic features and processes than can be given in Geology 1. A careful study of the physiographic development of the United States is made. Lectures are supplemented by field and

laboratory work, and by considerable outside reading. Prerequisite, Geology 2. Two hours, first term. Four credits.

Wed. Fri. 10:10

7. **PETROLOGY.** A systematic study of rocks and the rock-forming minerals. Particular attention is given to the origin and formation of the different kinds of igneous rocks and methods for the determination of the minerals which compose them. Prerequisites, Geology 2 and 4, Chemistry 1. Lectures, reading, and laboratory work. Time and credit to be arranged.

8. **FIELD GEOLOGY.** The methods employed in field work and the mapping of a region from geological field notes are carefully studied. During the year the students work out the geology of an assigned area. Lectures, supplemented by reading. Prerequisite, Geology 2. Two recitations, one afternoon field work or laboratory period throughout the year. Credit according to work. Can also be taken in summer school but classes for less than ten students will not be organized for summer work.

*See Roads, page 132, for related work.*

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## HISTORY

PROFESSOR DAINES

3. **ENGLISH HISTORY.** A course covering the history of England to the present time, with but a brief survey of the period before 1485. Special stress is laid on the constitutional and the social development of modern England. Three hours throughout the year. Six credits.

Tu. Th. Sat. 8:30

4. **MODERN EUROPEAN HISTORY.** A course covering the history of Europe from the beginning of the eighteenth century. In this course current events receive attention. Three hours throughout the year. Six credits.

Tu. Th. Sat. 12:40

5. HISTORY OF THE AMERICAN WEST. A course dealing with the expansion of the American people westward. Special attention is paid to the economic factors at the bottom of this movement, and the effects of this movement on the country, politically and socially. Utah and the surrounding states are given special consideration. Three hours throughout the year. Six credits.

Tu. Th. Sat. 1:30

6. ANCIENT HISTORY. This course deals with the history of the ancient nations that have contributed to the civilization of western Europe. Three hours throughout the year. Six credits.  
*Not given in 1914-1915.*

7. HISTORY OF CIVILIZATION. A broad view of those factors in ancient, medieval, and modern civilization that have been of greatest permanent value in our own day. Two hours throughout the year. Four credits.

8. HISTORY OF AGRICULTURE. A general survey of the development of methods of agriculture in ancient and modern times, and the origin of some of the principal farm crops. Three hours during the second semester. Three credits.

Tu. Th. Sat. 10:10

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## HOME CONSTRUCTION AND SANITATION

PROFESSOR COOPER  
MISS \_\_\_\_\_

1. SANITATION. A general survey of the principal health problems of the home and community, including a study of vital statistics; cause, carriers, and prevention of disease; sanitary science and arts in relation to air, water, food supply, and to sewage and garbage disposal. Prerequisites, Bacteriology 1 and 2. Two hours, first term. Two credits.

Wed. Fri. 8:30

2. HOME CARE OF THE SICK. A course intended to help the student meet conditions in home life in which professional nursing is not required. It includes emergencies, first aids to the injured, and simple procedure in home care of the sick. Prerequisites, Bacteriology 1, Physiology 1. Two laboratory periods. Second term. Three credits.

Wed. Fri. 9:20 to 11

3. HOUSE CONSTRUCTION. Includes a study of factors in location of the house; floor plans; principles of floor planning; and construction of materials. Prerequisites, H. S. C. 1 and Art 1. Two hours, second semester. Two credits.

Wed. Fri. 8:30

4. HOUSEHOLD ADMINISTRATION. This course deals briefly with the relation of the home to society. It includes a study of: standards of living, cost of living, income and expenditure; savings, service, and management. Prerequisite, Economics 2. Three hours throughout the year. Six credits.

Tu. Th. Sat. 9:20

5. HOME LAUNDERING. This course includes a study of equipment for the home laundry; laundering processes; methods of cleaning silks, woolens, linen, and cotton; special precautions in handling colored materials, laces, and fine materials; the removal of stains. Prerequisites, Chemistry 1 and 2, and Bacteriology 1. Two laboratory periods, first semester. Two credits.

6. SURVEY. A study of the practical problems in the supervision and management of home economics departments in educational institutions. Two lectures throughout the year. Two credits.

Wed. Fri. 9:20

7. SANITARY ANALYSIS. This course includes a chemical and bacteriological examination of water and milk. Prerequisites, Chemistry 1 and 2, and Bacteriology 1. One lecture and two laboratory periods, second semester. Three credits.



## HORTICULTURE

PROFESSOR BATCHELOR

MR. SCHWEITZER

1. **POMOLOGY.** The course gives the student a scientific and a practical knowledge of commercial fruit growing,—selection of orchard site, planting, cultivation, irrigation, harvesting and marketing the crop. Three lectures, first term. Three credits.

Tu. Th. Sat. 8:30

2a. **PRACTICAL POMOLOGY.** The theory and practice of the most elementary phases of horticulture; such as, propagation, picking and packing fruit, and elementary work in greenhouse management. Two lectures and one laboratory period, first term. Three credits.

Lec. Wed. Fri. 10:10; lab. Tu. 2:20 to 4:50

2b. **PRUNING AND PROPAGATION.** A continuation of Horticulture 2, dealing with the theory and practice of pruning and propagation. Prerequisite, Horticulture 1. One lecture and two laboratory periods, second term. Three credits.

Lec. Wed. Fri. 10:10; lab. Tu. 2:20 to 4:50

3. **BUSH FRUITS.** A study of the propagation, culture, harvesting and marketing of small fruits; such as, strawberries, currants, raspberries, grapes. Prerequisite, Horticulture 2. Two lectures, second term. Two credits.

Lec. Wed. Fri. 8:30

4. **VEGETABLE GARDENING.** A study of the cultivation and economic importance of the various vegetable crops; soils, fertilizers, planting, transplanting, and storage of such crops for home and commercial uses. Two lectures and one laboratory period, second term. Three credits.

Lec. Wed. Fri. 9:20; lab. Wed. 2:20 to 4:50

7. **SYSTEMATIC POMOLOGY.** A systematic and detailed study

of the various fruits, giving the student a working knowledge of varieties and the ability to judge fruit exhibits. Prerequisites, Horticulture 1, Botany 2. One lecture and one laboratory period, first term. Two credits.

Lec. Wed. 9:20; lab. Wed. 2:20 to 4:50

8. **LANDSCAPE GARDENING.** A study of ornamental plants; methods of grouping and planting; laying out public and private grounds. Prerequisite, Horticulture 2. Two lectures, one laboratory period, second term. Three credits.

Lec. Wed. Fri. 11:50; lab. Fri. 2:20 to 4:50

9. **HORTICULTURAL LITERATURE.** A critical examination of books, bulletins, reports, magazine articles, etc., dealing with special horticultural subjects. Prerequisites, Horticulture 1, Botany 5, and Entomology a. Three recitation periods throughout the year. Six credits.

Tu. Th. Sat. 10:10

10. **HISTORY OF HORTICULTURE AND AGRICULTURE.** Beginning with mythical Egypt, 2700 B. C., the history and development of these industries are traced through Greece, Rome, and England; finally a general survey is made of the past and present conditions in the United States. Three lecture periods, second term. Three credits.

Tu. Th. Sat. 8:30

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## LIBRARY WORK

MISS ELIZABETH SMITH

MISS HATTIE SMITH

1. **GENERAL REFERENCE.** Classification and arrangement of books in the Agricultural College library; the card catalogue, the more generally used reference books. "List of Reference Books

in the Utah Agricultural College Library" is used as a text-book. Two hours, first term. Two credits.

Wed. Fri. 10:10

2. **BIBLIOGRAPHY.** Treatment of agricultural, scientific, and technical literature published in the transactions of learned societies, special periodicals, and government publications. Lectures by professors in the special departments of the College; each student compiles a bibliography. Two hours, second term. Two credits.

Wed. Fri. 10:10

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## MATHEMATICS

PROFESSOR SAXER

ASSISTANT PROFESSOR HUMPHERYS

a. **ALGEBRA.** A first year course in high school algebra. Five hours throughout the year. Ten credits.

Daily, 9:20

b. **PLANE GEOMETRY.** Three hours throughout the year. Six credits.

Sec. 1. Tu. Th. Sat. 10:10

Sec. 2. Tu. Th. Sat. 12:40

3. **AGRICULTURAL MATHEMATICS.** A brief practical course in plane trigonometry which places special emphasis on the practical application of the subject to the solution of triangles. This course dispenses with those technical parts of the subject which are of practical importance only to the engineer and the student of advanced mathematics, but it includes the necessary drill in the use of algebra, logarithms, and trigometric tables. Primarily for students in agriculture who desire a minimum amount of math-

ematics as a prerequisite to plane surveying. Prerequisite, entrance mathematics. Three hours, first term. Three credits.

Tu. Th. Sat. 12:40

4. SOLID GEOMETRY. Three hours, second term. Three credits.

Tu. Th. Sat. 1:30

5. COLLEGE ALGEBRA. Three hours throughout the year. Six credits.

Tu. Th. Sat. 9:20

6. PLANE TRIGONOMETRY. Three hours, first term. Three credits. Prerequisite, Mathematics 5.

Tu. Th. Sat. 1:30

7. ANALYTIC GEOMETRY, CALCULUS. A one-year course which includes the elements of (a) plane analytic geometry, (b) differential calculus, and (c) integral calculus. Five hours throughout the year. Ten credits. Prerequisites, Mathematics 5 and 6.

Daily, 8:30

8. DIFFERENTIAL EQUATIONS. A brief course in ordinary differential equations. Special emphasis is placed on the solution of practical problems. Prerequisite, Mathematics 7. Two hours throughout the year. Four credits.

Wed. Fri. 12:40

9. DESCRIPTIVE GEOMETRY. See Mechanical Drawing 9.

10. GENERAL ASTRONOMY. A brief course giving the fundamental facts of astronomy. Prerequisite, Physics 1. Two hours throughout the year. Four credits.

Wed. Fri. 10:10

11. SPHERICAL TRIGONOMETRY. Prerequisite, Mathematics 6. Three hours, second term. Three credits.

Tu. Th. Sat. 12:40

**MECHANIC ARTS**

ASSISTANT PROFESSOR HANSEN  
ASSISTANT PROFESSOR PULLEY  
ASSISTANT PROFESSOR NEWAY  
MR. SWENSON

**FORGING AND GENERAL BLACKSMITHING**

ASSISTANT PROFESSOR NEWAY

1. **ELEMENTARY FORGING.** Forged articles, each of which has a practical application on the farm and in the shop, are progressively arranged to teach the underlying principles of forging. Staples, repair links, bolts, grab hooks, clevises, stay chains, blacksmith's tongs, cold chisels are typical examples of the work done. Two hours each week are given to the consideration of shop mathematics and technology. Three periods daily, first term. Five credits.

Daily, 8:30 to 11

2. **SPECIAL FORGE SHOP OPERATIONS.** In this course, emphasis is placed upon the use and care of blacksmith tools. Articles such as, swivels, turnbuckles, single-tree clips, ferrules, wrenches, chisels, punches, drills, reamers, pinchers, hammers, and other tools are made so as to illustrate forging with anvil tools, filing, finishing, casehardening, tempering, drilling, counterboring, and brazing. Two hours each week are given to the consideration of shop mathematics and technology. Prerequisite, Course 1. Three periods daily, second term. Five credits.

Daily, 8:30 to 11

3. **ADVANCED FORGING.** The forgings in this course are chosen to give further practice in the principles taught in Courses 1 and 2. Much time is given to forging and welding tool steel. A few large forging and welding exercises which necessitate the

use of the power hammer are given to familiarize the student with large work. The articles made include a set of anvil tools, a sledge hammer, and a few special carriage forgings. Prerequisite, Course 2. Three periods daily, first term. Five credits.

Daily, 2:20 to 4:50

4. WOODWORK. This course is given to prepare the student for general repair work and carriage woodwork. The articles made are selected with the idea of bringing the student in touch with the problems in woodwork, common to a western repair shop. Three periods daily, second term. Five credits.

Daily, 2:20 to 4:50

5. REPAIR PROBLEMS. The common problems met by the mechanic in the repair shop are considered. They include axle and tire setting, resetting of springs, plow work, steel dressing, and horseshoeing. The work is varied to meet the student's needs. Prerequisite, Course 3. Three periods daily, first term. Five credits.

Daily, 2:20 to 4:50

6. REPAIR WORK. Here the student meets actual shop conditions. The College farm implements and vehicles give ample work for practice. Prerequisite, Course 5. Three periods daily, second term. Five credits.

Daily, 2:20 to 4:50

7-8. CARRIAGE WORK. Joints and constructions used in carriage and automobile bodies receive attention, the course concluding with the building of an approved vehicle or farm implement. Prerequisites, Course 6, and Mechanical Drawing 4. Three periods daily, two terms. Five credits, each term.

Daily, 2:20 to 4:50

a. SHORT COURSE. Selected work from Course 1. This course is arranged for students who cannot spend every day in the shop. It is especially suitable for agricultural and engineering students or for any one who wishes to become familiar with the use

of blacksmith tools. Welding iron and tempering steel are given as much consideration as the time will allow. Six periods a week, each term. Two credits.

Wed. Fri. 8:30 to 11 and 2:20 to 4:50

b. **ADVANCED SHORT COURSE.** This course is for students who have had some work, but cannot arrange their course to fit our regular schedule. It consists of advanced work selected from the regular courses. Time and credits to be arranged with the instructor.

*Any of the above work may be taken in the Practical course and the Winter course.*

**FOUNDRY WORK.** The foundry is operated for demonstration purposes and for the making of castings for the machine department and other departments of the College. If a sufficient number of students apply for foundry work it will run for instructional purposes also.

#### MACHINE WORK

##### ASSISTANT PROFESSOR PULLEY

a. **SHORT COURSE.** This course consists of exercises selected from Courses 1 and 2. It is intended to serve the needs of those studying farm machinery, those who want only an elementary understanding of the subject, and those who have but limited time for the work. Two laboratory periods, including recitation, two terms. Two credits, each term.

Wed. Fri. 2:20 to 4:50

b. **ADVANCED SHORT COURSE.** Work selected from other courses. Time, credits, etc., to be arranged with instructor.

*All courses following come daily, 2:20 to 4:50, and continue through one term each. Laboratory periods, Tu. Wed. Th. Fri., and recitations Saturday. Five credits.*

1. **BENCH AND VISE WORK.** The technical and practical phases of the subject are treated. The materials, tools, and

methods used in the work receive careful attention. Students are required to solve shop problems and obtain other important information relating to speeds of pulleys, drills, emery wheels, diameters of pulleys, length of belts, weights of metals, etc. The practical work includes the making of keyways, keys, hinges, stencil plates, stamp letters, threading bolts and nuts, polishing, scraping bearings, etc. First term.

Daily, 2:20 to 4:50

2. BENCH, PLANER AND SHAPER WORK. This course consists of soldering, babbitting bearings, valve grinding, buffing, hand turning, planing and shaping flat and angular surfaces, and elementary work on the engine lathe. Calculating cutting speeds, feeds, and other movements regarding the mechanism of the machines, furnishes problems for solution. Prerequisite, Course 1. Second term.

Daily, 2:20 to 4:50

3. LATHE AND MILLING MACHINE WORK. In this course machine parts; such as, pulleys, bearings, stuffing box glands, bolts, valve and piston rods, eccentrics, and straps are made and the operations involved carefully studied. Students are required to make computations of speeds, feeds, gears for thread cutting, time required in turning out work, etc. Prerequisite, Course 2. First term.

Daily, 2:20 to 4:50

4. LATHE AND ADVANCED MILLING WORK. Shaft couplings, emery and buffing wheel spindles, engine crank shafts, connecting rods, jack screws, spur, bevel, spiral gears, and gang milling are representative of the work of this course. The technology and mathematics of the work are studied. Prerequisite, Course 3. Second term.

Daily, 2:20 to 4:50

5. AUTOMOBILE WORK. This course deals principally with the power plant and transmission system of the gasoline automobile. Students have the privilege of making such parts as cams



and camshafts, valves and plungers, pistons and rings, connecting rods, crank shafts, clutches, change speed gears, differentials, etc. A study of the purpose and action of these parts is made. Prerequisite, Course 3. Second term.

Daily, 2:20 to 4:50

6. TOOL MAKING. The making of small tools; such as, tap and reamer wrenches, taps and dies, reamers, twist drills, mandrels, milling cutters, etc., which affords practice on the grinding machine, constitutes the practical training of this course. The technical information pertaining to this work is required. Prerequisites, Course 4, and a knowledge of hardening and tempering steel. First term.

Daily, 2:20 to 4:50

7. ADVANCED TOOL MAKING. In this course attention is given to the making and using of jigs and fixtures in relation to the interchangeable manufacture of machinery and to the making of punches and dies for punch press work. Methods of production are studied. Prerequisites, Course 4, and a working knowledge of tool steel. Time course may be arranged with the instructor.

Daily, 2:20 to 4:50

8. MACHINE CONSTRUCTION. The repair and construction of machinery are taken up in this course. A drill and three lathes have been restored to working condition after damage by fire, and a power hack-saw and a two-and-a-half horse power gasoline engine have been built outright by students. It is the intention to build a model-size steam engine in 1914-15. Prerequisites, Course 4, and a working knowledge of tool steel. First term.

Daily, 2:20 to 4:50

9. MACHINE CONSTRUCTION (continued.) Second term.

*Any of the above work may be taken in the winter courses.*

10. ELEMENTARY MACHINE DESIGN. A study is made of the various kinds of fastenings; such as, rivets and riveted joints,

bolts and screws, pipe fittings, keys and cotters. Drawings of the designs are required. Prerequisite, a knowledge of mechanical drawing and of the strength of the materials of construction. One recitation and one laboratory period, first term. Two credits.

Wed. Fri. 11:50 to 1:30

11. MACHINE DESIGN (continued.) The designing of shafting, shaft couplings, bearings, journals, pulleys, spur, bevel and spiral gearing, pistons and rods, constitutes the course. Prerequisite, Course 10. Time and credits, same as for Course 10.

#### MECHANICAL DRAWING

##### ASSISTANT PROFESSOR PULLEY

1. ELEMENTARY MECHANICAL DRAWING. The course consists of drawing plane geometrical figures and making the common geometrical constructions used in drafting operations. It gives practice with drawing instruments and is intended to develop accuracy in using them. One recitation and one laboratory period, first term. Two credits.

Rec. and lab. Wed. Fri. 8:30 to 11

2. LETTERING AND APPLIED GEOMETRY. Practice in letter construction, spacing, etc.; in construction of monograms, titles for drawings, border lines, north points, scales; and in making projection drawings. Prerequisite, Course 1, or a working knowledge of geometry. One recitation and one laboratory period, second term. Two credits.

Rec. and lab. Wed. Fri. 8:30 to 11

3. ORTHOGRAPHIC PROJECTION. Practice in the representation of objects on paper in strict accord with practice and the principles underlying orthographic projection. The course embraces the regular coordinate projections, auxiliary projections, sectional views, and graphical solutions connected with the problems commonly met by the mechanic. Prerequisite, Course 2. One recitation and one laboratory period, first term. Two credits.

Rec. and lab. Wed. Fri. 8:30 to 11

4. **ORTHOGRAPHIC PROJECTION** (continued.) The application of its principles in determining true length of lines, angles, sizes and shapes of surfaces, the lines of intersection of planes, solids and developments. Such knowledge is used constantly by mechanics in reading drawings, laying out jack rafters, hoppers, hand rails, finding correct shapes for moulding cutters, and in laying out sheet metal work. One recitation and one laboratory period, second term. Two credits.

Rec. and lab. Wed. Fri. 8:30 to 11

5. **ONE PLANE PROJECTION.** In this course students have practice in making pictorial representations of objects in isometric, dimetric, oblique, and cabinet projections. Drawing of geometrical solids, framing joints, tables, cabinets, work benches, machine parts, etc., constitutes the work. Prerequisite, Course 3. One recitation and one laboratory period, first term. Two credits.

Rec. and lab. Wed. Fri. 8:30 to 11

6. **WORKING DRAWINGS.** The principles obtained in the foregoing courses are applied in making working drawings, including dimensions, notes, title, and other information needed by the workman. The common conventions, blue printing, and commercial practice receive attention. The work can be made to apply to the work the student is pursuing; as, carriage drafting, drawing of architectural details and machine parts. Prerequisite, Course 4. One recitation and one laboratory period, second term. Two credits.

Rec. and lab. Wed. Fri. 8:30 to 11

7. **ARCHITECTURAL DRAWING AND PERSPECTIVE.** The student is required to design a building, and draw the plans, elevations, sections, details, and the perspective of the complete building. One recitation and one laboratory period, first term. Two credits.

Rec. Tu. 9:20; lab. Tu. 2:20 to 4:50

8. **MACHINE DRAWING.** The course consists of sketching and drawing of machinery with dimensions, notes, and the conventions regularly used in such drawing. Prerequisite, Course 4.

One recitation and one laboratory period, second term. Two credits.

Rec. Tu. 9:20; lab. Tu. 2:20 to 4:50

9. AGRICULTURAL DRAFTING. This course is arranged to meet the needs of agricultural students who wish a general understanding of mechanical drawing. It consists of drawing the various kinds of lines, geometrical constructions, and conventional symbols used in the work; lettering and orthographic projections of objects. Prerequisite, plane geometry. One recitation and two laboratory periods, first term. Three credits.

Rec. and lab. Wed. Fri. 8:30 to 11

10. AGRICULTURAL DRAFTING (continued.) The principles obtained in Course 9 are used in making drawings of fence, and head gates, flumes, cisterns, buildings, etc., and in making plats, maps, and profiles. Tracing and blue printing are also given. Prerequisite, Course 9. One recitation and two laboratory periods, second term. Three credits.

Rec. and lab. Wed. Fri. 8:30 to 11

11. ELEMENTARY DESCRIPTIVE GEOMETRY. Descriptive geometry is the science of mechanical drawing but it is more comprehensive. It develops the power to visualize, analyze, and solve graphical problems, and is of practical value to the mechanic and the engineer alike in reading working drawings and in solving graphical problems that arise in their work. Problems relating to the point, line, plane, and simple solids are taken up. Prerequisite, Course 2 or a working knowledge of geometry and instruments. Three laboratory periods, including recitation hour, first term. Three credits.

Rec. and lab. Tu. Th. Sat. 8:30 to 11

12. DESCRIPTIVE GEOMETRY (continued.) This course consists of determining tangent planes, sections, intersections, and developments of single curved and warped surfaces, and double curved surfaces of revolution. Practical problems; such as, laying out patterns for various kinds of reducers, transition pieces, loco-

motive stacks, and screw conveyor designs, etc., are given. Prerequisite, Course 11. Three laboratory periods, including recitation hour, second term. Three credits.

Rec. and lab. Tu. Th. Sat. 8:30 to 11

*N. B.—The necessary materials and instruments for mechanical drawing can be purchased at the College bookstore for, from fifteen to twenty-five dollars.*

#### WOODWORK

ASSISTANT PROFESSOR HANSEN  
MR. SWENSON

1. FUNDAMENTALS. This course embraces the first principles of woodwork; such as, scarfing, mortising, dovetailing, and jointing, all of which progressively illustrate the essentials of the art. The proper way of handling the tools is emphasized. The course includes two lectures a week in technology and shop mathematics. Three periods daily, first term. Five credits.

8:30 to 11

2. FUNDAMENTALS (continued.) Making of panels, sashes, doors, shelves, together with thorough practice in tool sharpening, constitutes the work of this course. Prerequisite, Course 1. Three periods daily, one term. Five credits.

8:30 to 11

3. MACHINE WORK. The care and use of wood working machinery, and the building of a modern work bench. Prerequisite, Course 2. Three periods daily, first term. Five credits

2:20 to 4:50

4. MACHINE WORK (continued.) Wood turning. A thorough course in elementary turning, and advanced turning of table legs, balusters, newels, and fancy objects. Students also make a tool chest. Prerequisite, Course 3. Three periods daily, second term. Five credits.

2:20 to 4:50

5. CABINET MAKING AND HOUSEBUILDING. The making in fir of settees, book cases, desks, or chairs; staining and finishing; housebuilding, consisting of calculating the bill of lumber, framing, roofing, and outside wood work. Prerequisites, Course 4, and Art 26. Three periods daily, first term. Five credits.

2:20 to 4:50

6. CABINET MAKING AND HOUSEBUILDING (continued.) Making and setting door and window frames, fitting and hanging doors and windows, or making furniture in oak,—such as, Morris chairs, desks, or dining tables, stained and finished. Three periods daily, second term. Five credits.

2:20 to 4:50

7. FANCY CABINET MAKING OR INTERIOR FINISHING. The making of furniture in mahogany or other expensive wood; veneering, inlaying, and hand polishing, or interior finishing of a house. Three periods daily, first term. Five credits.

2:20 to 4:50

8. Continuation of Course 7.

2:20 to 4:50

9. PATTERN MAKING. This course consists of the making of patterns in plain pipes, elbow joints, arc boxes, grates, pulleys, and spur gears, thus giving to the student the elementary knowledge of this work. Prerequisite, Course 4. Six periods a week, one term. Two credits.

10. WOOD CARVING. The carving of simple articles in straight and curved lines, simple conventional ornaments, and natural foliage, together with the sharpening and setting of tools, constitutes the work of this course. Six periods a week, one term. Two credits.

a. SHORT COURSE. Selected work from Course 1. This course is arranged for students who cannot spend every day in the shop. It is especially suitable for agricultural and engineering

students, and for any who wish to become familiar with tools in order to do simple woodwork on the farm and around home. Six periods a week, first term. Two credits.

Sec. 1. Tu. Th. 8:30 to 11

Sec. 2. Tu. Th. 2:20 to 4:50

b. **ADVANCED SHORT COURSE.** This course is for students who have had some work, but cannot fit our regular schedule. It consists of advanced work selected from the regular courses. Time and credits to be arranged with the instructor.

Tu. Th. 8:30 to 11

*Any of the above work may be taken in the Practical or the Winter course.*

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## MILITARY SCIENCE AND TACTICS

LIEUTENANT EUGENE SANTSCHI, JR., U. S. ARMY

Military instruction at the College is not a matter of choice with the authorities or the students. The Congress of the United States requires this instruction in return for large appropriations. The object of the instruction is to qualify students for commissions in the National Guard or volunteer army. All able-bodied male students of the College are enrolled in the Military department, during three years of their course. The satisfactory completion of both the practical and the theoretical work prescribed for any one year entitles the student to two credits.

Military drill improves the habits and manners of the student, develops him physically, and gives him that military knowledge which every citizen should possess that he may render intelligent aid to his country or state in time of need. It cultivates a manly spirit, ready and implicit obedience, respect for authority and restraint—all qualities of inestimable value to a young man in whatever calling he may choose.

The military body of the College consists of one battalion of

three companies and a band of 28 instruments. The organization, drill, and administration are the same as in the regular army. The appointment and promotion of officers and non-commissioned officers in the battalion is made by the Commandant of Cadets upon approval by the President of the College, after a careful consideration of the following points: knowledge of drill and other duties as determined by examination, and practical application of this knowledge on the drill field; zeal, soldierly bearing and aptitude for command; character, military record; and general standing in the College.

Paragraph 20, General Orders No. 155, War Department, July 24, 1907, directs that, "Upon occasions of military ceremony in the execution of drills, guard duty, and where students are receiving any other practical military instruction, they shall appear in the uniform prescribed by the institution." The College has adopted a very neat and serviceable uniform which may be purchased through the College secretary at actual cost, about sixteen dollars. Students, when they register, must be prepared to deposit five dollars towards the purchase of their uniform.

There will be five fifty-minute periods of instruction each week throughout the year. This is required of all cadets, except band members, during three years of their attendance. The military instruction of the band will average one period a week.

#### PRACTICAL INSTRUCTION

(An average of three periods a week.)

The instruction consists of infantry drill—school of the soldier, squad, company and battalion in close and extended order; ceremonies of guard mounting, parade, review and escort of the Color Field. Service Regulations—marches, outposts, advance guard, rear guard and combat exercises. Small arms, Firing Manual—Position sighting and aiming drills; indoor and outdoor target practice.

Tu. Th. Sat. 11



## THEORETICAL INSTRUCTION

(An average of one period a week.)

Recitations in infantry drill regulations, small arms firing regulations, field service regulations, guard duty and administration; lectures on military subjects.

Sec. 1. Tu. 12:40

Sec. 2. Th. 12:40

Sec. 3. Sat. 12:40

## MODERN LANGUAGES AND LATIN

PROFESSOR ARNOLD

## FRENCH

1. FIRST YEAR FRENCH. Fraser & Squair's *French Grammar* and Guerber's *Contes et Legendes* form the basis of the grammatical and conversational work. Four hours throughout the year. Eight credits.

Tu. Wed. Th. Fri. 10:10

2. SECOND YEAR FRENCH. Francois *French Composition* is the basis of a grammatical review of writing in French. Lavissee's *Histoire de France* is used as subject matter for conversation, and the work in reading consists in translating works of the more important nineteenth century authors. Prerequisite, French 1. Three hours throughout the year. Six credits.

Tu. Th. Sat. 9:20

3. THIRD YEAR FRENCH. Four elective one-hour courses: a—conversation; b—rapid reading of French periodicals on horticulture, stock-breeding, or domestic science subjects; c—rapid reading of French classics, varying each year; d—French periodicals on French home life. Course 3b may be given in two divisions to suit those who elect it. Students may elect any part or all of French 3. Each division counts two credits.

Fri. 9:20

## GERMAN

1. FIRST YEAR GERMAN. Grammar, conversation, and reading of easy texts. Four hours throughout the year. Eight credits.  
Tu. Wed. Th. Fri. 8:30

2. SECOND YEAR GERMAN. Bernhardt's *German Composition* is finished and work in original German compositions is begun. Many texts are rapidly read, selected from nineteenth century authors, together with one scientific text. Three hours throughout the year. Six credits.

Tu. Th. Sat. 11:50

3. THIRD YEAR GERMAN. Three elective one-hour courses: a—conversation, including the learning of a part in a one-act play; b—scientific German, with private reading in different subjects according to the course of each student; c—a study of modern German drama. Students may elect any part or all of German 3. Each division counts two credits.

4. BEGINNER'S COURSE. A beginner's course in German for teachers, meeting on Saturday. Work covered depends on the nature of the class. Two or more credits.

Sat. 10:10

## SPANISH

1. FIRST YEAR SPANISH. Giese, *First Year in Spanish*; Matzke, *First Spanish Readings*; Valdes, *Jose*; Alarcon, *El Capitan Veneno*. Two hours throughout the year. Four credits.

Wed. Fri. 1:30

2. SECOND YEAR SPANISH. Ford, *Spanish Composition*; Picatoste, *Historia de Espana*, as basis for conversation; rapid reading of such modern texts as Valera's *Commendador Mendoza*; Galdos, *Dona Perfecta* and *Electra*; Brenton, *Quien es ella?*; and one classical play. Three hours throughout the year. Six credits.

## LATIN

1. FIRST YEAR LATIN. Collar and Daniel, *First Year Latin; Viri Romae*. Drill on essentials of Latin grammar; comparison with English grammar; acquiring of vocabulary; English words derived from Latin; selections for reading. Four hours throughout the year. Eight credits.

*Not given in 1914-1915.*

2. SECOND YEAR LATIN. Greenough, D'Ooge, and Daniel, *Second Year Latin*; D'Ooge, *Latin Composition Based on Caesar*; Bennett, *Latin Grammar*; selected readings from Part I, *Second Year Latin*; an equivalent of four books of selections from Caesar; oral and written composition. Attention is given to etymology of English derivatives and cognates; accuracy and facility in translating into idiomatic English; sight translation. Three hours, throughout the year. Six credits.

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**MUSIC**

PROFESSOR THATCHER, *Choir, Theory and Composition, Voice*

MR. SPICKER, *Orchestra-conducting, Violin*

MR. CLARK, *Harmony, Pipe Organ*

MRS. LINNARTZ, *Solfeggio, Voice*

MISS UNDERWOOD, *Piano Ensemble, Piano*

*Class work in music is free; a small laboratory fee is charged in some courses.*

1. a. NOTATION AND SOLFEGGIO. Includes exercises in melody writing, and simple chord formation. (From text.) b. Applied music either in choir or band. Four hours throughout the year. Eight credits.

Tu. Th. Sat. 11:50

2. a. HISTORY AND APPRECIATION OF MUSIC. (From text.)  
 b. Applied music either in choir or band. (*N. B. A small laboratory fee is charged.*) Four hours throughout the year. Eight credits.

Tu. Th. Sat. 12:40

3. a. ELEMENTARY HARMONY, Exercises in melody writing. (Text used.) Two recitations a week; home study, 8 hours as a minimum. (At least two years of piano study or its equivalent must have been pursued before attempting this course.) b. Applied music: 1. individual work, home study, 6 hours at least; 2. ensemble, 2, 3, or 4 hours of home study at least. Five or six hours throughout the year. Ten credits.

Tu. Th. Sat. 1:30

*Note—for Courses 4, 5, and 6, the home study increases over Course 3.*

4. a. ADVANCED HARMONY AND ANALYSIS. Ear training. (Text used.) b. Applied music, individual and ensemble. Prerequisite, Music 3. Five or six hours throughout the year. Ten credits.

5. a. COUNTERPOINT AND SMALL FORMS. (Text used.)  
 b. Applied music, individual and ensemble. Prerequisite, Music 4. Five or six hours throughout the year. Ten credits.

6. a. CANON AND FUGUE. Large forms. (Text used.)  
 b. Applied music, individual and ensemble. Prerequisite, Music 5. Five or six hours throughout the year. Ten credits.

7. a. INSTRUMENTATION, first term. b. Conducting, second term. c. Study of biographies and works of German and French composers, with public rendering of important compositions. Four hours throughout the year. Eight credits.

*This course is for graduates.*

8. ORIGINAL COMPOSITION. a. The student practices com-

posing in art songs, anthems, and cantata forms; also in small and large instrumental combinations,—as, pianoforte-four hands, trio, quartet, and orchestra. b. Ensemble (advanced.) Prerequisite, Music 7. Four hours throughout the year. Eight credits.

ENSEMBLE. Choral practice, in choir, 2 hours a week; glee, 2 hours a week; quartet, 2 hours a week. Orchestral practice: orchestra, 4 hours a week; quartet, 1 hour a week; trio (pianoforte and strings), 1 hour a week. Band, 3 hours a week (one drill). Pianoforte class, 4, 6, and 8 hands, 2 hours a week.

Band. Tu. Th. Sat. 11  
 Choir. Tu. Th. Sat. 11  
 Orchestra. Tu. Th. 4  
 Ensemble Piano. Wed. 4  
 Weekly Examinations. Fri. 4

Note—Individual work may be taken in voice, violin, piano, or orchestral instrument, either in the College or outside, but the work must cover the appended course. Examinations are held once a month, at which all registered students are expected to play or sing. The student pays the teacher's fee.

INDIVIDUAL WORK. Embraces the following:

*Voice Culture and Singing.* Must have a playing knowledge of piano or violin, i. e., two years of serious study; breathing; study of vowel forms, scales, vocal exercises of Sieber, Vaccai, Conconne, Abt, Marchesi, etc.; songs (modern and classic), arias from opera, oratorio.

*Violin.* Two years' study presupposed. First year, David or DeBeriot, Book II; easy solos. Second year, Kreutzer, 42 exercises, medium grade. Third year, Fiorilli studies; Rode, 24 exercises; Concertos Viotti, Rode. Fourth year, Rovelli, Gavinies, Mendelssohn, Bruch.

*Pianoforte.* Two years' study presupposed. First year, Gurlitt, Beyer, Czerny, Schmitt, or Biehl. Second year, Bertini, Clementi, Kuhlau, Loeschorn, Heller. Third year, Czerny, Dorn, Hiller, Gobbaert, Craemer, Mozart, Haydn, and others. Fourth

year, Craemer, Kessler, Clementi, Kullak, Gradus ad Parnassum, Schubert, Mendelssohn, Chopin.

*Orchestral Instrument.* Corresponds as nearly as possible to courses of study on violin. (Must combine with study of the solo instrument, two years on piano.)

*Tuition, (private instruction.) Term of fifteen weeks, payable in advance.*

#### VOICE.

Fifteen lessons: beginners, \$15; advanced, \$22.50

#### PIANO.

Fifteen lessons: first year, \$15; second year, \$22.50

#### PIPE ORGAN.

Fifteen lessons: \$22.50

#### VIOLIN.

Fifteen lessons: \$22.50

#### VIOLONCELLO.

Fifteen lessons: \$15

#### CLARINET, CORNET, AND BAND INSTRUMENTS.

Fifteen lessons: \$10

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## PHYSICAL EDUCATION

PROFESSOR TEETZEL

ASSISTANT PROFESSOR JOHNSON

MISS BALLANTYNE

It is the aim of the department of physical education to foster hygienic habits among the students and so direct their exercise that they may have a physical development fit to support and make efficient the mental development which they seek in attending the Institution. This is accomplished, first, by giving them the needed opportunity for gymnastic exercises; secondly, by encouraging athletic games, thereby stimulating the students' interest in their

physical efficiency and in the pleasure of physical activity; thirdly, by giving them a guiding knowledge of the principles of physical education. Each student is entitled to a careful physical examination, upon which, as far as possible, his work is based. Students are required to wear regulation gymnasium suits and shoes.

## FOR MEN

1. FOOTBALL.
2. SWIMMING. a. beginners. b. advanced students.
3. BASKETBALL. a. college team. b. class teams.
4. WRESTLING.
5. BASEBALL.
6. TRACK WORK.
7. FIRST AID TO THE INJURED. Two hours, first term.

## FOR WOMEN

At least two college courses of physical education are required of all college women. The courses are both creative and recreative, remedial and preventive. Physical examinations are given each woman some time during the first three weeks of the first semester, at the end of which instruction begins. The work is based as far as possible on the findings of the examination.

Individual attention is given to women who do not feel strong enough or well enough to do regular class work, and to those who need exercise for correction or prevention of slight deformities, faulty postures, etc.

**PHYSICAL EDUCATION 1.** This course is required of all college women. It consists of regular formative and corrective body building, and is supplemented by one lecture period a week, for which outside reading is required on personal hygiene, sex hygiene, physiology of exercise, and first aid to the injured. Three floor periods. One lecture period. Two credits.

Tu. Th. Sat. 11

**PHYSICAL EDUCATION 2.** Physical Education 1 or its equivalent is a prerequisite. The course consists of the technique of dancing, a study of rhythm, and the fundamental principles from which all forms of dancing are built. Simple dances, dance combinations, and social dancing. Three floor periods. One credit  
Tu. Th. Sat. 2:20

**PHYSICAL EDUCATION 3.** Advanced dancing. The work of this course is based upon Physical Education 2. Dance composition, interpretative dancing, and the relation of dancing to music. A number of the chalf dances are studied. Three floor periods. One credit.

Tu. Th. Sat. 11:50

**PHYSICAL EDUCATION 4.** Athletics. This course includes in and out-of-door games,—baseball, basketball, volley ball, hockey, cross country running, tennis, polo, and swimming. It governs competitive games and tournaments and has to do with the awarding of honors for women's athletics. No credit.

Daily at 4

**SWIMMING.** The swimming pool is open to women at certain periods daily. Instruction is given in swimming, diving, and water sports.

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## PHYSICS

PROFESSOR F. L. WEST

MR. \_\_\_\_\_

**1a. GENERAL PHYSICS.** A first course in the elements of physics, including a study of mechanics, heat, electricity and magnetism, sound, and light. The lectures are illustrated by appropriate experiments and lantern slides. Prerequisite, one unit of mathematics. Three recitations and one laboratory period throughout the year. Eight credits.

Lec. Tu. Th. Sat. 8:30; lab. Wed. Fri. Sat. 2:20 to 4:50



1b. GENERAL PHYSICS. A descriptive course in physics for home economics and commercial students, emphasizing the applications of physics in modern life. Three recitations and one laboratory period, throughout the year. Eight credits.

Lec. Tu. Th. Sat. 9:20; lab. Sat. 2:20 to 4:50 or Fri. 11:50 to 2:20

2. GENERAL COLLEGE PHYSICS. A survey of the whole field of physics in order to lay a thorough foundation for the subsequent study of this and related subjects, with special emphasis on principles most useful to the student of agriculture and agricultural engineering. Prerequisite, high school physics, and two units of mathematics. Three recitations and two laboratory periods throughout the year. Eight credits.

Lec. Tu. Th. Sat. 11:50; lab. Tu. Th. 2:20 to 4:50

3. ELEMENTARY APPLIED MECHANICS, THERMODYNAMICS, STEAM AND GASOLINE ENGINES. Prerequisite, Physics 2. Three recitations throughout the year. Six credits.

*Not given in 1914-1915.*

4. APPLIED ELECTRICITY. Two recitations and one laboratory period throughout the year. Six credits. Prerequisite, Physics 1.

*Not given in 1914-1915. (See Physics 9.)*

5. CHEMICAL PHYSICS. Lectures on some of the fundamental laws and theories of chemistry and physics, including the atomic theory; kinetic theory of gases; gaseous, liquid, and solid states; solutions; thermo-chemistry; electro-chemistry; radioactivity; and the electron theory. Prerequisites, elementary chemistry and physics. Two lectures and one laboratory period throughout the year. Six credits.

Lec. Wed. Fri. 8:30; lab. Tu. or Th. 2:20 to 4:50

6. ELEMENTARY MATHEMATICAL PHYSICS. A critical review of elementary mathematics with its application in physics, chemistry, and engineering. Two recitations throughout the year. Four credits.

*Not given in 1914-1915.*

7. **ADVANCED LABORATORY WORK.** Prerequisite, Physics 2. Time and credit to be arranged.

8. **METEOROLOGY, LIGHT, AND SOUND.** A general discussion of the atmosphere: its composition and movements; the nature of storms, winds, frosts, dew, cloud, fog, etc.; special study of the methods of weather observations, predictions, and frost warnings. The second term is devoted to a study of light and sound. Prerequisite, elementary physics. Two recitations throughout the year. Four credits.

Lec. Wed. Fri. 10:10

9. **ELECTRICITY AND MAGNETISM.** Two lectures throughout the year. Four credits.

Lec. Wed. Fri. 12:40

*See Farm Mechanics, page 96, for related work.*

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## PHYSIOLOGY AND PHYSIOLOGICAL CHEMISTRY

PROFESSOR GREAVES

MR. SMITH

1. **PHYSIOLOGY.** A discussion of movement, sensation, circulation, respiration, digestion, absorption, metabolism, and excretion. Questions of hygiene and sanitation are also considered. Three hours, first term. Three credits.

Tu. Th. Sat. 9:20

2. **DIGESTION, ABSORPTION, AND METABOLISM.** An advanced course in special phases of physiology, dealing mainly with digestion and related subjects. Three lectures, second term. Three credits.

Tu. Th. Sat. 9:20

3. **PHYSIOLOGICAL CHEMISTRY.** This course deals with the chemical interpretation of the transformations going on in the plant and animal organism. Three lectures, second term. Three credits.

Tu. Th. Sat. 10:10

4. **PHYSIOLOGICAL CHEMISTRY.** A laboratory course which

may accompany the preceding course. Six hours' laboratory work a week, second term. Two credits.

*See Bacteriology, page 81, for related work.*

## POLITICAL SCIENCE

PROFESSOR THOMAS

PROFESSOR DAINES

MR. BROOKE

1. GOVERNMENT. Our European ancestors, origin of states and state institutions, English and American governments compared, state and foreign service, the treasury, money and coinage, banks, the post office and executive departments, legislation, the constitution, federal and state powers, political parties, party issues. Three hours throughout the year. Six credits.

Tu. Th. Sat. 9:20

2. INDUSTRIAL AND COMMERCIAL LAW. A study of the elementary principles of law relating to common business transactions, including contracts, sales, promissory notes and bills of exchange, contracts of common carriers, agency, partnership and corporations. Three hours throughout the year. Six credits.

4. CONTRACTS. Assent and the necessity of its communications; offers and their expiration or revocation; consideration; contracts under seal; joint and several contracts; conditional contracts; duress; discharge of contracts by rescission; novation, accord and satisfaction; release. Three hours throughout the year. Six credits.

Tu. Th. Sat. 1:30

5. BILLS AND NOTES. Formal requisites; acceptance; indorsement; transfer; overdue paper; extinguishment; obligations of parties; checks; Negotiable Instruments' Law. Three hours, first term. Three credits.

6. AGENCY. The creation and termination of the relation; nature and execution of the authority; rights and liabilities under the relation; particular classes of agents. Three hours, second term. Three credits.

7. CORPORATION LAW. Private corporations; creation of corporations; implied and granted powers of corporations; powers and liabilities of directors, stockholders, etc. Municipal corporations; legislative control; rights and remedies of creditors; liabilities; power to contract on credit, borrow money, and issue negotiable instruments. Three hours, first term. Three credits.

8. PARTNERSHIPS. Nature of a partnership, its purposes and members, creation of partnerships; nature of partners' interest; firm name and good-will; mutual rights and duties of partners; liability of partners; dissolution; debts; distribution of assets; limited partnership. Three hours, second term. Three credits.

9. a. SALES. Subject-matter of sale; executory and executed sales; bills of lading; fraud; warranty; Statute of Frauds.

b. MORTGAGES. Form of mortgage—legal and equitable; the substance of the mortgage; elements of the mortgage; situation of the mortgagee and mortgagor.

Three hours, first term. Three credits.

12. IRRIGATION LAW OR THE LAW OF WATERS. This course treats of the right of appropriation, natural and artificial water courses, limitation of use, protection of rights, disposal of rights, percolating water, distribution of water, etc. Three hours, second term. Three credits.

Tu. Th. Sat. 11:50

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## ROADS

PROFESSOR WM. PETERSON

1. ROAD CONSTRUCTION. The course includes a study of road location, grade, drainage, resistance to traction, road materials, cost of construction and of machinery for preparing road material. Three hours, first term. Three credits.

Tu. Th. Sat. 11:50

2. ROAD MAINTENANCE. The effect of width of tires and size of wheels, keeping the road in proper form, repairing worn

surfaces, maintaining proper drainage, employment of labor, cost of maintenance, comparison of different road machines. Prerequisite, Roads 1. Three hours, second term. Three credits.

Tu. Th. Sat. 11:50

3. BRIDGE BUILDING. A course dealing with methods of bridge construction, a study of materials used, and the amount of stress on arches of various kinds. The relative cost, strength, and durability of different bridges are discussed. Special attention is given to small bridges and culverts. Three hours, one term. Three credits.

4. ROAD BUILDING. A detailed study is made of the various materials used in the construction and maintenance of roads. Special attention is given to the materials which are available to Utah farmers. Prerequisite, Geology 2 or 4. Two hours, second term. Two credits.

Lec. Wed. Fri. 8:30; lab. Tu. 2:20 to 4:50

See *Agricultural Engineering*, page 65, and *Geology*, page 100, for related work.

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## SOCIOLOGY

PROFESSOR THOMAS

PROFESSOR HENDRICKS

1. ELEMENTS OF SOCIOLOGY. A general course in the foundations and principles of sociology, including a careful study of the social organs, social structure, and social activities. Three hours throughout the year. Six credits.

Tu. Th. Sat. 12:40

2. PRESENT DAY SOCIAL PROBLEMS, WITH SPECIAL REFERENCE TO RURAL CONDITIONS. This course aims to apply the general principles of sociological science to the problems of modern agricultural and rural communities. Three hours, second term. Three credits.

Tu. Th. Sat. 11:50

See *Economics*, page 91, for related work.

## STENOGRAPHY AND TYPEWRITING.

MR. HOWELL

## STENOGRAPHY

a. STENOGRAPHY. A beginning course in stenography, designed to fit the student for actual work in the office, or to prepare him for more advanced reporting work. Graham's *Phonography* is used. Five hours throughout the year. Ten credits.

Daily, 9:20

b. STENOGRAPHY. A continuation of Course a, involving a thorough review of the texts, a study of advanced correspondence, reporting legal matter, speeches, etc. Much transcribing on the typewriter is required. Five hours throughout the year. Ten credits.

Daily, 10:10

1. STENOGRAPHY. A course designed to prepare the student for office work or to teach stenography. Five hours throughout the year. Ten credits.

Daily, 12:40

## TYPEWRITING

a. TYPEWRITING. A beginning course in typewriting. After the simpler exercises, the student learns correct fingering and the proper manipulation of the machine. Special attention is given to the care and mechanism of the typewriter. Five hours throughout the year. Two credits.

Daily, any hour

b. TYPEWRITING. A special course for those taking stenography, including a study of correct forms of correspondence, legal forms, etc. As soon as moderate speed is acquired, the work includes the transcription of shorthand notes. Five hours throughout the year. Two credits.

Daily, any hour

1. TYPEWRITING. A course supplementing Stenography 1. Five hours throughout the year. Two credits.

Daily, any hour

*For accounting and business practice, see page 62.*

**VETERINARY SCIENCE**

PROFESSOR FREDERICK

1. **VETERINARY ELEMENTS.** This course considers briefly elementary anatomy and physiology and the common ailments of domestic animals; the most prevalent contagious diseases, their causes, symptoms, course, diagnosis and treatment; measures for their prevention and cure. The course is taught by lectures and text books, and illustrated by observation and practice in the free clinics held each week. The aim is to teach the student how to care for and treat the animals on the farm. Two hours, each term, and a three-hour clinic. Three credits.

Lec. Wed. Fri. 9:20; clinic, Sec. 1. Wed. 11:50 to 2:20; Sec. 2. Wed. 2:20 to 4:50

2. **COMPARATIVE ANATOMY.** This course is prepared for students in agriculture, but especially in animal husbandry. It consists of lectures, illustrated by skeletons and prepared specimens and models. Each student is required to perform practical work in dissection. Two lectures and one laboratory period, throughout the year. Six credits.

3. **OBSTETRICS.** This course includes a review of obstetrical anatomy, reproduction, hygiene of pregnant animals, obstetric operations, accidents of parturition, and diseases of the young animals. The college herd and the surrounding stock-breeding community give opportunity for practical work. Three hours, one term. Three credits.

4. **PHYSIOLOGY.** This course consists of lectures and demonstrations, the vital functions of the different species of domestic animals and those of the human body being compared. A study of the physical and chemical laws as related to physiology, and of the general properties of animal cells,—their origin, development and growth, occupies the first term. Special physiology of the various organs and tissues of the animal body occupies the second term. Three lectures a week. Six credits.

5. **CLINICS.** Free clinics are held at the hospital, and all students taking any of the courses in veterinary science are required to attend and assist in the free examination and treatment of the numerous cases brought in, representing all diseases common to this section of the country and furnishing the clinic with abundant material for observation and actual application of the work of the class room. Hours and credits to be arranged.

6. **HORSE SHOEING.** This course is devoted to the study of the anatomy and physiology of the horse's foot; the relation between the form of the foot and direction of the limb; variations in the flight of the foot, style of going, shoeing of normal and irregular feet; winter shoeing; correction of defects in gait, and methods of shoeing hoofs, defective in form or diseased. Time and credits to be arranged.

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## ZOOLOGY

PROFESSOR TITUS

MR. PARRY

MR. HAGAN

a. **GENERAL ZOOLOGY.** An elementary course in which the student obtains a general knowledge of the relation of various groups of animals to one another. In the laboratory especial emphasis is laid on gross structure and the relation of the organs in the different groups. Two recitations and one laboratory period throughout the year. Six credits.

Sec. 1. Lec. Wed. Fri. 8:30; lab. Tu. 11:50 to 2:20

Sec. 2. Lec. Wed. Fri. 10:10; lab. Wed. 2:20 to 4:50

Sec. 3. Lec. Wed. Fri. 11:50; lab. Th. 11:50 to 2:20

3. **PRINCIPLES OF BREEDING.** Lectures and required readings on the biological principles underlying life and the inheritance of characters. Three lectures, first term. Three credits.

Sec. 1. Tu. Th. Sat. 8:30

Sec. 2. Tu. Th. Sat. 10:10

4. **EUGENICS.** Lectures and required readings on the principles of heredity as applied to the human race. Special attention



is given to the heredity of physical, mental, and moral characters, and their effect on the race. Prerequisite, Zoology 3. Three lectures, second term. Three credits.

Sec. 1. Tu. Th. Sat. 8:30

Sec. 2. Tu. Th. Sat. 10:10

5. HISTORY. Lectures and laboratory work on the development of the elementary tissues and their microscopic structure. Methods of preparing, staining, and mounting tissues. One lecture, two laboratory periods, throughout the year. Six credits.

Lec. Th. 9:20; lab. Tu. Th. 2:20 to 4:50

*Alternates with Zoology 6.*

6. EMBRYOLOGY. General principles of development beginning with the cell and following through the formation of the various membranes. In the second term is taken up the development of the central nervous system and the related sense organs. One recitation and two laboratory periods throughout the year. Six credits.

*Not given in 1914-1915. Alternates with Zoology 5.*

7. ADVANCED ZOOLOGY. This course deals with the classification, structure, and comparative anatomy of the common intermountain forms, especially those of the vertebrate group. Two lectures and one laboratory period. Three or six credits.

Lec. Tu. Sat. 9:20; lab. Fri. 2:20 to 4:50

*Alternates with Zoology 8 and 9.*

8. ECONOMIC ZOOLOGY. Lectures on the food habits of our common birds and injurious mammals; their relation to agricultural interests, and methods of control. Two lectures and one laboratory period. Three hours, first term. Three credits.

Lec. Wed. Fri. 9:20; lab. Tu. 2:20 to 4:50

*Alternates with Zoology 7.*

9. ANIMAL PARASITES. Lectures and laboratory work on the principal external and internal parasites of man and the various animals. Two recitations and one laboratory period, one term. Three credits.

*Alternates with Zoology 7. Not given in 1914-1915.*

*See Entomology, page 95, for related work.*

## TUESDAY THURSDAY AND SATURDAY SCHEDULE 1914-15

HOUR	8:30	9:20	10:10	11:00	11:50	12:40	1:30	2:20	3:10	4:00
<b>AGRICULTURE</b>										
AGRONOMY	12 <sup>f</sup> , 14 <sup>f</sup> , 15 <sup>o</sup> Th	1 <sup>o</sup> , 2 <sup>f</sup> T	5 <sup>f</sup> Th					5 <sup>f</sup> Th, 4 <sup>o</sup> Th, 8 <sup>f</sup> T, 10 <sup>o</sup> T		
AN: HUSBANDRY	3	2					4 <sup>a</sup>			
BACTERIOLOGY								2 <sup>f</sup> Th, 5 <sup>f</sup> Th, 4 <sup>o</sup> Th		
BOTANY						7 <sup>f</sup> , 8 <sup>o</sup> Th		1 <sup>o</sup> Th, 4 <sup>f</sup> T, 4 <sup>o</sup> Th		
CHEMISTRY	3 <sup>f</sup> , 5 <sup>f</sup>	3 <sup>f</sup> , 5 <sup>o</sup>			1 <sup>f</sup>	2 <sup>f</sup>		1 <sup>f</sup> Th, 6		
DAIRYING										
ENTOMOLOGY						1 <sup>o</sup>		2 T		
HORTICULTURE	1 <sup>f</sup> , 10 <sup>o</sup>		9					2 T		
POULTRY					1 <sup>f</sup> , 4 <sup>o</sup> Th					
VET: SCIENCE										
<b>AGRI: ENGIN.</b>										
AGRI: SURV.								4 <sup>o</sup> T Th		
AGRI: TECH.										
FARM: MECH.								3 <sup>o</sup> T, 4 <sup>f</sup> T		
IRRIG: & DRAINAGE	1 <sup>f</sup> , 2 <sup>o</sup> Th 5		7 <sup>f</sup> , 9 <sup>f</sup>		5 <sup>o</sup>	5 <sup>o</sup> , 3 <sup>f</sup>	9 <sup>o</sup>			
ROADS					1 <sup>f</sup> , 2 <sup>o</sup>			4 <sup>o</sup> T		
RURAL ARCH.		3 <sup>f</sup> , 4 <sup>o</sup>					1 <sup>f</sup>	5 <sup>o</sup> T Th		
RURAL SANITATION					8					
<b>COMMERCE</b>										
ACCOUNTING	e	1 T Th	4 <sup>f</sup> , 5 <sup>o</sup>		3		o, 8 <sup>o</sup> T Th	a, b, c	b, c	
ECONOMICS			2		12 <sup>f</sup>		4a <sup>f</sup> , 4b <sup>o</sup> , 1			
FINANCE & BANK'G.		1 <sup>f</sup> , 2 <sup>o</sup>	6			3 <sup>f</sup> , 4 <sup>o</sup>				
POL: SCIENCE		1			12 <sup>o</sup>		4			
SOCIOLOGY					2 <sup>o</sup>	1				
STENOGRAPHY		a	b			1				
TYPE WRITING	a, b, 1									
<b>GEN: SCIENCE</b>										
<b>ART</b>										
ART		1 <sup>f</sup> , 2 <sup>o</sup>			2, 26, 27	2, 5, 22, 24, 27	5, 27			
ENGLISH		c <sup>f</sup> , 6 <sup>f</sup> , 12	b, c, 9, 19		6 <sup>a</sup>	c <sup>o</sup> , 3, 22	a, 10, 24			
GEOLOGY	2 <sup>f</sup>	c <sup>a</sup>	3							
HISTORY	3		8 <sup>o</sup>			4	5			
LIBRARY										
MATHEMATICS	7	a, 5	b <sup>f</sup>			o <sup>o</sup> , 3 <sup>f</sup> , 11 <sup>o</sup>	4 <sup>o</sup> , 6 <sup>f</sup>			
MOD: LANGUAGES	Gr. 1 T Th	Fr 2	Fr 1 Th, Gr 4 S		Gr 2					
MUSIC					1	2	3			Orchestra T Th
PHYSICS	1a	1b			2			1a, 5, 1b, 2 T Th, 5 T Th		
PHYS: & PHYS: CHEM.		1 <sup>f</sup> , 2 <sup>o</sup>	3 <sup>o</sup>							
ZOOLOGY	3 <sup>f</sup> , 4 <sup>o</sup>	7 T S, 5 Th	3 <sup>o</sup> , 4 <sup>o</sup>		o <sup>f</sup> , o <sup>o</sup> Th			5 T Th, 8 <sup>f</sup> T		
<b>HOME ECON.</b>										
DOMESTIC ART		c <sup>f</sup> , o <sup>o</sup>	c <sup>f</sup> , o <sup>o</sup> , 9 <sup>o</sup>		7 <sup>f</sup> , 8 <sup>o</sup> Th	1 <sup>f</sup> , 2 <sup>o</sup> , 7 <sup>f</sup> Th, 8 <sup>o</sup> Th	5 T Th			
FOODS & DIETETICS		5 <sup>f</sup> , 6 <sup>o</sup>					1 <sup>f</sup> T Th, 2 T Th			
HOME CONST: & SANT.		4								
<b>MECH: ARTS</b>										
FORGING	1 <sup>f</sup> , 2 <sup>o</sup>							3 <sup>f</sup> , 4 <sup>o</sup> , 5 <sup>o</sup> , 6 <sup>f</sup> , 7 <sup>o</sup> , 8 <sup>o</sup>		
MACH: WORK	11 <sup>f</sup>	7 <sup>f</sup> , 8 <sup>o</sup> , 11 <sup>o</sup> , 12 <sup>o</sup>	11 <sup>o</sup> , 12 <sup>o</sup>					1 <sup>f</sup> , 2 <sup>o</sup> , 3 <sup>f</sup> , 4 <sup>o</sup> , 5 <sup>o</sup> , 6 <sup>f</sup> , 7 <sup>o</sup> , 8 <sup>o</sup>		
MECH: DRAWING								7 <sup>f</sup> T, 8 <sup>o</sup> T		
WOOD WORK	1 <sup>f</sup> , 2 <sup>o</sup> , o <sup>f</sup> T Th	b <sup>o</sup> T Th						3 <sup>f</sup> , 4 <sup>o</sup> , 5 <sup>o</sup> , 6 <sup>f</sup> , 7 <sup>o</sup> , 8 <sup>o</sup>		
								o <sup>o</sup> T Th, 1 <sup>o</sup> , 2 <sup>o</sup> T Th		
<b>DRILL</b>						1 <sup>f</sup> T Th, 3 <sup>o</sup>				
<b>PHYS: EDUCATION</b>					1	3		2		4

FIGURES AS EXPONENTS = SECTION  
 'o' AS EXPONENT = FIRST TERM ONLY  
 LARGE FIGURES = COLLEGE COURSES

SMALL 's' AS EXPONENT = SECOND TERM ONLY  
 CAPITAL LETTERS = DAYS OF WEEK  
 SMALL LETTERS = HIGH SCHOOL COURSES

**ALL SUBJECTS SHALL BE EXAMINED IN THE SCHEDULE GROUP OF WHICH THEY FORM A PART**

## WEDNESDAY AND FRIDAY SCHEDULE 1914-15

HOUR	8:50	9:20	10:10	11:00	11:50	12:40	1:30	2:20	3:10	4:00
<b>AGRICULTURE</b>										
AGRONOMY	0 <sup>1</sup> , 16 <sup>2</sup>		3 <sup>1</sup> , 4 <sup>2</sup>		10 W			0 <sup>1</sup> W, 9 <sup>2</sup> W, 6 <sup>1</sup> , 15 <sup>2</sup> F		
AN: HUSBANDRY	0 <sup>1</sup> , 7 <sup>2</sup>	8 <sup>1</sup> , 9 <sup>2</sup>	0 <sup>2</sup>		0 <sup>2</sup>	0 <sup>6</sup>		5 <sup>1</sup>		
BACTERIOLOGY	2 <sup>1</sup>				1 <sup>1</sup> , 1 <sup>2</sup>			1 <sup>1</sup> , 1 <sup>2</sup>		
BOTANY	1 <sup>1</sup>	4	1 <sup>2</sup>				5 W, 10 F	1 <sup>1</sup> , 5		
CHEMISTRY	3 <sup>1</sup> , 5 <sup>2</sup>	3 <sup>2</sup> , 8 <sup>2</sup>			4 W			2 <sup>1</sup> , 4		
CHEMISTRY					0 <sup>1</sup> W, 1 <sup>2</sup>		1 <sup>2</sup> F, 3			
CHEMISTRY			0 <sup>2</sup>			3		3 W		
ENTOMOLOGY			2							
FLORICULTURE	3 <sup>2</sup>	4 <sup>2</sup> , 7 <sup>1</sup> W	2		6 <sup>2</sup>			4 <sup>2</sup> W, 7 <sup>1</sup> W, 8 <sup>2</sup> F		
POULTRY								1 <sup>2</sup> F		
MET. SCIENCE		1 <sup>1</sup> , 1 <sup>2</sup>			Clinic <sup>1</sup> W			Clinic <sup>2</sup> W		
AGRI: ENGIN.										
AGRI: SURV.							1 <sup>2</sup> W	1 <sup>2</sup>		
AGRI: TECH.					1 <sup>1</sup> , 2 <sup>1</sup>					
FARM MECH.					1 <sup>1</sup> , 2 <sup>2</sup>	3 <sup>2</sup> F, 4 <sup>2</sup> F		1 <sup>1</sup> W, 2 <sup>2</sup> W		
IRRIG: & DRAINAGE								2 <sup>2</sup> F		
ROADS	4 <sup>2</sup>									
RURAL ARCH.			5 <sup>2</sup> W							
RURAL SANITATION					4 <sup>1</sup>					
<b>COMMERCE</b>										
ACCOUNTING	f	1				8 <sup>2</sup>	0, 8 <sup>2</sup>	0, 5, 0	b, c	
ECONOMICS										
FINANCE & BANK'G										
IND: SCIENCE										
SOCIOLOGY										
TELEOGRAPHY		0	b		1					
TYPE WRITING	0, b, 1									
<b>PHYS: SCIENCE</b>										
ART	2, 4	2, 4	4, 2, 4		5, 2, 6, 2, 7	5, 2, 6, 2, 7	5, 2, 2, 2, 3, 2, 7	5, 2, 2, 2, 7		
ENGLISH	7 <sup>1</sup> , 8	7 <sup>2</sup>	7 <sup>3</sup> , b		15	11	0, 20, 23			
GEOLOGY		4 W	5 <sup>2</sup> , 6 <sup>1</sup>		0			4		
HISTORY										
LIBRARY			1 <sup>1</sup> , 2 <sup>2</sup>							
MATHEMATICS	7	a	10		8					
MOD: LANGUAGES	Gr. 1	Fr. 3 F	Fr. 1				Sp. 1			ENSEMBLE PIANO W
MUSIC										EXAMINATIONS F
PHYSICS	5		8		10 F, 10 F	10 F, 10 F, 9	10 F, 10 F	10, 10		
PHYS: & PHYS: CHEM.										
ZOOLOGY	0 <sup>1</sup>	0 <sup>2</sup>	0 <sup>2</sup>		0 <sup>2</sup>			0 <sup>2</sup> W, 7 F		
<b>HOME ECON.</b>										
DOMESTIC ART			0 <sup>1</sup> F, 0 <sup>2</sup> F, 3 W		4	3, 4	3, 6	6		
FOODS & DIETETICS			3		2 W		1 <sup>2</sup> , 3 W			
HOME CONST: & SANT.	1 <sup>1</sup> , 3 <sup>2</sup>	2 <sup>2</sup> , 6	2 <sup>2</sup>							
<b>MECH: ARTS</b>										
FORGING		0 <sup>2</sup> , b <sup>2</sup> , 1 <sup>2</sup> , 2 <sup>2</sup>						0 <sup>2</sup> , b <sup>2</sup> , 3 <sup>2</sup> , 4 <sup>2</sup> , 5 <sup>2</sup> , 6 <sup>2</sup> , 7 <sup>2</sup> , 8 <sup>2</sup>		
MACH: WORK					10 <sup>1</sup> , 11 <sup>2</sup>			0 <sup>2</sup> , 1 <sup>2</sup> , 2 <sup>2</sup> , 3 <sup>2</sup> , 4 <sup>2</sup> , 5 <sup>2</sup> , 6 <sup>2</sup> , 7 <sup>2</sup> , 8 <sup>2</sup>		
MECH: DRAWING	1 <sup>1</sup> , 2 <sup>2</sup> , 3 <sup>2</sup> , 4 <sup>2</sup> , 5 <sup>2</sup> , 6 <sup>2</sup> , 9 <sup>2</sup> , 10 <sup>2</sup>									
WOOD WORK	1, 2							3 <sup>1</sup> , 4 <sup>2</sup> , 5 <sup>1</sup> , 6 <sup>2</sup> , 7 <sup>1</sup> , 8 <sup>2</sup>		
DRILL										
<b>PHYS: EDUCATION</b>										

CHAPEL EXERCISES AND STUDENT BODY

FIGURES AS EXPONENT = SECTION  
 F AS EXPONENT = FIRST TERM ONLY  
 LARGE FIGURES = COLLEGE COURSES

SMALL 'S' AS EXPONENT = SECOND TERM ONLY  
 CAPITAL LETTERS = DAYS OF WEEK  
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## ALUMNI ASSOCIATION

In April, 1899, President J. M. Tanner suggested to Miss Anna Beers, '98 and Charles A. Jensen, '97 the desirability of organizing all the degree graduates of the College into an Alumni association. This was the initial step in the direction of the present firmly established organization. Miss Beers and Mr. Jensen prepared, and sent to each of the 34 graduates, a circular letter urging attendance at Commencement, 1899, in order to form a society. They met with a very hearty response. Meetings were held June 13 and 14, 1899; a constitution and by-laws were discussed and adopted; and the following officers were elected: President, Lewis A. Merrill, '95; Secretary, Anna Beers, '98; treasurer, Arthur Stover, '99. The following alumni have served as presidents of the association:

1899-1900, L. A. Merrill, '95.	1905-06, Robert Stewart, '02.
1900-01, J. T. Caine, Jr., '94.	1906-07, C. W. Porter, '05.
1901-02, W. H. Homer, Jr., '00.	1907-08, J. C. Hogenson, '99.
1902-03, Rose Homer, '00.	1908-11, Christian Larsen, '96.
1903-04, William Peterson, '99.	1911-12, C. W. Porter, '05.
1904-05, J. W. Jensen, '00.	1912-13, W. D. Beers, '99.
	1913-14, Wm. Peterson, '99.

The U. A. C. Alumni Association includes all graduates who hold degrees from any of the courses in the College. It now numbers 384 living members. William Bernard Dougall, '94, Mrs. Anna Sponberg McCarty, '97; Prof. Christian Larsen, '96; Mrs. Hermoine Hart Roberts, '97; John Simon Baker, '99, and Stanley Crawford, '00, have died. With three exceptions, all of the 384 graduates have received the degree of Bachelor of Science (B. S.), the particular course being specified in the diploma. In the first two classes, the degree of Bachelor of Civil Engineering (B. C. E.) was given, and W. B. Dougall, '94, A. B. Larsen, '94, and W. F. Culmer, '95, were graduated with this degree.

MEMBERS OF THE ALUMNI ASSOCIATION OF THE UTAH  
AGRICULTURAL COLLEGE

*Class of 1894*

Robert W. Erwin.....506 La Salle Building, St. Louis, Mo.  
Bernard Dougall .....Deceased  
A. B. Larsen.....315 South 4th West, Provo, Utah  
Martha Hoyt Myrick.....Marion, Utah  
John T. Caine, Jr.....Richmond, Utah  
Jos. E. Shepherd.....Logan, Utah

*Class of 1895*

Will Fred Culmer.....Culmer Paint & Glass Co., Salt Lake City, Utah  
Lewis A. Merrill.....906 Newhouse Building, Salt Lake City, Utah

*Class of 1896*

Willard S. Langton.....33 West 126th St., New York City  
Christian Larsen .....Deceased  
Walter W. McLaughlin.....Logan, Utah  
Amos N. Merrill.....Provo, Utah  
Lorin A. Merrill.....Richfield, Utah  
Josiah L. Rhead.....State Engineer's Office, Salt Lake City, Utah  
Jos. R. Thomson.....Richmond, Utah

*Class of 1897*

John H. Bankhead.....Logan, Utah  
Olla Barker .....Ogden, Utah  
Clara Foster Bacon.....Boise, Idaho  
Alfred A. Hart.....Bloomington, Idaho  
Hermoine S. Hart .....Deceased  
Thomas H. Humpherys.....Logan, Utah  
Charles A. Jensen.....Rocky Ford, Colorado  
Victoria Lundberg Anderson.....Box 184, Pocatello, Idaho  
Rachel Maughan Wadsworth.....Logan, Utah  
Charles Pond .....Lewiston, Utah  
Mamie Smith Larsen.....Preston, Idaho  
Anna Sponberg .....Deceased  
John Stewart .....Logan, Utah  
Osborne J. P. Widtsoe.....Salt Lake City, Utah

*Class of 1898*

Frederick H. Atkinson.....419 East 7th South, Salt Lake City, Utah  
Anna Beers Petty.....2555 Gramercy Avenue, Ogden, Utah  
Mabel Bullen Young.....Richmond, Utah  
Joel J. Harris.....Adams Avenue, Ogden, Utah  
A. Ray Irvine.....Walker Building, Salt Lake City, Utah

*Class of 1899*

John S. Baker.....	Deceased
Wm. D. Beers.....	State Engineer, Salt Lake City, Utah
Ethel Bullen Webb.....	Richmond, Utah
Robert J. Gordon.....	1008 6th Ave. South Lethbridge, Alta, Canada
J. C. Hogenson .....	Logan, Utah
Fred W. Merrill .....	Fargo, North Dakota
Jos. H. Peterson.....	Huntsville, Utah
William Peterson .....	Logan, Utah
Walter W. Simmonds.....	Salmon City, Idaho
Arthur P. Stover.....	207 Tilford Bldg., Portland, Oregon

*Class of 1900*

Stanley Crawford .....	
Burton P. Fleming.....	Iowa City, Iowa
Rose Homer Widtsoe.....	Salt Lake City, Utah
Wm. H. Homer, Jr.....	Pleasant Grove, Utah
Jos. W. Jensen.....	Ogden, Utah
Elizabeth Maughan Nye.....	Paris, Idaho
William Nelson.....	Budd Hall, Berkeley, California
George F. Taylor.....	State Engineer's Office, Salt Lake City, Utah

*Class of 1901*

Planche Cooper .....	Logan, Utah
Esther Evans Davis .....	Malad, Idaho
Mary Almeda Perry.....	33 West 126th St., New York City
Charles B. Smith.....	Boise, Idaho
Mattie E. Stover.....	Experiment Station, Berkeley, California

*Class of 1902*

Amanda Holmgren Santschi.....	Tientsin, China
Edward P. Pulley .....	Logan, Utah
Robert Stewart .....	Logan, Utah

*Class of 1903*

John T. Caine III.....	Logan, Utah
Thomas C. Callister, Jr.....	Fillmore, Utah
Chas. F. Brown.....	933 East 11th South, Salt Lake City, Utah
Grace Fisher .....	Menominee, Wisconsin
Lydia Holmgren Tanner.....	Brigham, Utah
Ambrose P. Merrill .....	Provo, Utah
Josephine Maughan Wells .....	Asherville, Kansas
Aquilla C. Nebeker .....	Topcliffe, Tooele Co., Utah
Frederick D. Pyle.....	715 North 3rd St., Montrose, Colorado
May Maughan Snow.....	1109 West Washington Ave., Madison, Wis.

*Class of 1904*

Edmund Crawford .....	Castle Dale, Utah
Geneva Egbert Chase .....	R. F. D. No. 1, Farmington, Utah
Joseph E. Greaves .....	Logan, Utah
Ray Homer Fisher .....	Rigby, Idaho
Roy Fisher Homer .....	Cedar City, Utah
William Jardine .....	Manhattan, Kansas
Chas. A. McCausland .....	Logan, Utah
Samuel P. Morgan .....	Preston, Idaho
Elmer G. Peterson .....	Logan, Utah
David Stephens .....	U. S. D. A., Washington, D. C.
Warren G. Swendsen .....	Boise, Idaho
F. L. West .....	Logan, Utah
R. B. West .....	Logan, Utah

*Class of 1905*

Richard S. Ballantyne.....	1161 Bueno Ave., Salt Lake City, Utah
James E. Barrack .....	Fairbanks, Alaska
Verna P. Bowman .....	2670 Jefferson Ave., Ogden, Utah
Blanche Caine Hyde.....	Salt Lake City, Utah
John L. Coburn .....	Logan, Utah
Eva Farr .....	2030 Washington Ave., Ogden, Utah
John J. Frederickson .....	Malad, Idaho
James T. Jardine.....	U. S. D. A., Washington, D. C.
Hazel Love Dunford.....	Logan, Utah
Ella Maughan Hull .....	Whitney, Idaho
Melvin C. Merrill.....	Missouri Botanical Gardens, St. Louis, Missouri
Eugene Snow Pierce .....	Logan, Utah
C. W. Porter .....	Logan, Utah
Samuel G. Rich .....	Burley, Idaho
Roy Rudolph .....	Logan, Utah
Edith Rudolph Hillman .....	Culver, Oregon
James Henry Smith .....	
Jos. E. Taylor.....	1042 Blaine Ave., Salt Lake City, Utah
John Henry Tuttle.....	

*Class of 1906*

Irvine Allred .....	Logan, Utah
Mildred Forgeon Rich .....	Burley, Idaho
Minnie Peterson Isgreen.....	224 West 3rd North, Salt Lake City, Utah

*Class of 1907*

P. G. Peterson .....	Provo, Utah
Fred Mathews .....	Springville, Utah
Inez Powell Belnap .....	2173 Adams Ave., Ogden, Utah
Frank Moench .....	American Falls, Idaho
J. L. Kearns .....	Park City, Utah
F. D. Farrell.....	U. S. D. A., Washington, D. C.
B. F. Riter, Jr.....	Washington Bldg., Los Angeles, California
Aaron Olsen .....	Logan, Utah

*Class of 1908*

Geo. R. Hill.....	Logan, Utah
C. N. Jensen .....	Logan, Utah
Hans E. Jensen .....	Ephraim, Utah
Alva Hansen .....	Ogden, Utah
Heber Carver .....	Brigham, Utah
Ellis Hudman .....	Rock Springs, Wyoming
Russell K. Homer.....	R. F. D., Provo, Utah
Eunice E. Jacobsen.....	St. George, Utah
William L. Walker .....	Cambridge, Massachusetts
Eugene Santschi .....	Tientsin, China

*Class of 1909*

Hugh Robert Adams .....	Hyrum, Utah
Jessie Anderson Hougaard .....	Manti, Utah
Earl Bennion .....	R. F. D. No. 7, Murray, Utah
Ernest Carroll .....	Urbana, Illinois
Phillip V. Cardon.....	U. S. D. A., Washington, D. C.
William Parley Day .....	Ogden, Utah
Robert J. Evans .....	Logan, Utah
Chas. E. Fleming .....	U. S. D. A., Washington, D. C.
Leon Fonnesbeck .....	Logan, Utah
Nellie Hayball Bennion.....	R. F. D. No. 7, Murray, Utah
Ernest P. Hoff .....	Georgetown, Idaho
John R. Horton.....	6328 Constance St., New Orleans, Louisiana
Julius H. Jacobsen.....	Mitchell, Nebraska
Ethel Lee .....	Monroe, Utah
Lizzie McKay Hill .....	Logan, Utah
Daniel L. Pack .....	Goshen, Utah
Ina Stratford .....	Pocatello, Idaho
Geo. M. Turpin .....	Ames, Iowa
Cadmus Wallace .....	Smithfield, Utah
E. H. Walters.....	U. S. D. A., Washington, D. C.
A. E. Aldous.....	U. S. D. A., Washington, D. C.

*Class of 1910*

Rodney C. Allred.....	L. D. S. Academy, New Zealand
Alando B. Ballantyne .....	St. George, Utah
Chas. E. Barrett .....	Schofield, Utah
Helen L. Bartlett.....	361 3rd Ave., Salt Lake City, Utah
Ethel Bennion .....	
Asa Bullen .....	Logan, Utah
Ray B. Curtis .....	Victor, Idaho
Veda Dixon Hamron.....	Bingham, Utah
Florence Dudley Cook.....	Fish Haven, Idaho
Odessie LaPreal Hendricks.....	Lewiston, Utah
Chas. T. Hirst .....	Logan, Utah
Joseph Grue .....	Hinckley, Utah
Alice Kewley.....	Granite High School, Salt Lake City, Utah



Orson G. Lloyd .....	Ames, Iowa
Orville L. Lee .....	Hyde Park, Utah
Amy Jane Leigh .....	Rexburg, Idaho
A. M. McOmie .....	Phoenix, Arizona
Inez Maughan .....	Logan, Utah
Lavinia Maughan .....	Logan, Utah
Amelia Manning Barker .....	Ogden, Utah
Dean F. Peterson .....	Hinckley, Utah
Erastus Peterson .....	Wells, Nevada
Susannah Perry Olsen .....	Ephraim, Utah
James D. Pence .....	Mountain Home, Idaho
Willard L. Peterson .....	Price, Utah
William Corlett Riter .....	O. S. L. Offices, Salt Lake City, Utah
Vincent Alff Sadler .....	Salt Lake City, Utah
James H. Stewart .....	Wellsville, Utah
Robert H. Stewart .....	Price, Utah
Winnifred I. Smith .....	2110 Central Ave., Indianapolis, Indiana
Nora Sonne .....	
A. H. Saxer .....	Logan, Utah
Aaron F. Rasmussen .....	Rexburg, Idaho
Franklin A. Wyatt .....	Champaign, Illinois
William B. Oldham .....	Sugar City, Idaho

*Class of 1911*

Junius J. Andrews .....	Ogden, Utah
James Arthur Armstrong .....	Salt Lake City, Utah
Wilbur M. Ball .....	Care U. S. Consul, Montevedio, Uruguay
A. E. Bowman .....	Laramie, Wyoming
Harry P. Barrows .....	Brigham, Utah
LeRoy Beagley .....	Wellsville, Utah
Edgar Brossard .....	46 Rue Richter, Paris, France
E. F. Burton .....	Afton, Wyoming
Frank M. Brown .....	Liberty, Idaho
Clifton George Busby .....	
L. L. Cook .....	Fish Haven, Idaho
A. C. Cooley .....	Alamosa, Colorado
Anna Corneal Christensen .....	Manti, Utah
L. Samuel Christensen .....	Burley, Idaho
Newel H. Comish .....	Franklin, Idaho
Ira A. Cole .....	Logan, Utah
Ivan R. Egbert .....	Pergaminna F. C. C. A., Argentina
Frederick Froerer .....	Brigham, Utah
Elizabeth Frazee Caine .....	Richmond, Utah
Anant Madhav Gurgar .....	Fresno, California
Heber C. Hancock .....	U. S. D. A., Washington, D. C.
James A. Holden .....	Mitchell, Nebraska
Elda Havenor .....	Mt. Pleasant, Utah
August L. Hansen .....	Logan, Utah
Sara Huntsman .....	Logan, Utah
Leah Ivins Cardon .....	Ethelhurst Apts., Washington, D. C.
Clarence E. Jones .....	Kamas, Utah

Wm. LeRoy Jones .....	Fillmore, Utah
Lucille Jensen Cooley .....	Alamosa, Colorado
Alma J. Knapp .....	Beaver, Utah
Coral L. Kerr .....	Logan, Utah
J. Carlos Lambert .....	Calders Station, Salt Lake City, Utah
Walter A. Lindsay .....	Lewiston, Utah
Clyde W. Lindsay .....	Ogden, Utah
George L. Morrison .....	Preston, Idaho
Merrill O. Maughan .....	Price, Utah
August L. Nelson .....	
Mathew A. Nelson .....	Kamas, Utah
Annie Nibley Bullen .....	Logan, Utah
John K. Olsen .....	Ephraim, Utah
John S. Paddock .....	Wisdom, Montana
Jesse L. Peterson .....	U. S. D. A., Washington, D. C.
Clara F. Parrish .....	Salt Lake City, Utah
Canute Peterson .....	Logan, Utah
Henry T. Plant .....	Richmond, Utah
W. L. Quayle .....	Cheyenne, Wyoming
Earl Robinson .....	Richmond, Utah
E. T. Ralph .....	Salt Lake City, Utah
George LeRoy Reese .....	Benson, Utah
Juanita Rich .....	Blackfoot, Idaho
D. Earle Robinson .....	Logan, Utah
J. Wiley Sessions .....	Pocatello, Idaho
Charles Snow, Jr. ....	
A. E. Stratford .....	Ogden, Utah
Georgiana Smurthwaite .....	Salt Lake City, Utah
James Tovey .....	Malad, Idaho
Jos. A. Willey .....	Forestry Bldg., Ogden, Utah
Robert L. Wrigley .....	Cedar City, Utah
L. M. Winsor .....	Logan, Utah
Edward H. Watson .....	Salt Lake City, Utah
John S. Welch .....	Gooding, Idaho
Diamond Wendleboe .....	Park City, Utah
Vern C. Wooley .....	Grantsville, Utah
George L. Zundel .....	Ithaca, New York

*Class of 1912*

Byron F. Alder .....	Logan, Utah
John A. Alder .....	Salt Lake City, Utah
M. J. Andrews, Jr. ....	Grantsville, Utah
Harry C. Beers .....	Logan, Utah
Isaac B. Ball .....	3505 South 7th East, Salt Lake City, Utah
Harry Beagley .....	Roosevelt, Utah
Hervin Bunderson .....	Brigham, Utah
Lofter Bjarnason .....	Logan, Utah
Alice D. Bowen .....	Ogden, Utah
George R. Braithwaite .....	Elmo, Utah
Martha M. Boulton .....	Ephraim, Utah
George B. Caine .....	Logan, Utah

Taylor M. Carmichael .....	Lehi, Utah
Orson A. Christensen .....	Brigham, Utah
Truman J. Cole .....	Logan, Utah
Anna Leona Cowley .....	Salt Lake City, Utah
Elizabeth Wooley Jensen .....	Logan, Utah
Alice A. Dunford .....	Logan, Utah
Arthur D. Ellison .....	Nephi, Utah
Martin R. Ensign .....	Ithaca, New York
Ethel T. Erdman .....	Levan, Utah
Vivian Erickson Porter .....	641 Huntington Ave., Boston, Massachusetts
Magdalen Funk Sessions .....	Pocatello, Idaho
Willard Gardner .....	Berkeley, California
Reuben L. Hill .....	.....
Vivian Hatch Bullen .....	Logan, Utah
L. R. Humpherys .....	Logan, Utah
M. Irene Hendrickson .....	Logan, Utah
Clara Hyde .....	Morgan, Utah
Angus Izatt .....	Levan, Utah
Orson W. Israelson .....	Davis, California
J. W. Jones .....	U. S. D. A., Washington, D. C.
David S. Jennings .....	Ithaca, New York
Vere L. Martineau .....	Salt Lake City, Utah
Charles Leo Merrill .....	Buenos Ayres, Argentina
John A. Morrison .....	Preston, Idaho
Wilford N. Moses .....	Smithfield, Utah
Eleda Nelson Erickson .....	Preston, Idaho
Aaron Newey .....	Logan, Utah
James G. Osmond .....	Logan, Utah
John W. Peters .....	Brigham, Utah
Ralph O. Porter .....	641 Huntington Ave., Boston, Massachusetts
Howard B. Schweitzer .....	Logan, Utah
Melvin S. Smart .....	Logan, Utah
Wm. LeRoy Smith .....	Rush Medical Institute, Chicago, Illinois
L. A. Stevens .....	Hinckley, Utah
John P. Sorenson .....	Logan, Utah
Wallace J. Vickers .....	Paris, Idaho
William John Wilson .....	Eden, Utah
Heber J. Webb .....	Sandy, Utah
William G. Woolley .....	Monroe, Utah

*Class of 1913*

Katherine P. Adams .....	Paris, Idaho
Mary L. Bastow .....	Logan, Utah
Edward L. Barrett .....	Logan, Utah
Heber Bennion, Jr. ....	Lehi, Utah
Theron W. Bennion .....	Moroni, Utah
Vernon A. Bird .....	Univ. of Minn., St. Paul, Minnesota
Ivy M. Burnham .....	Logan, Utah
Josephine Burton .....	Afton, Wyoming
Asahel W. Burke .....	Hyde Park, Utah
Mark C. Brown .....	Salt Lake City, Utah

Clawson Y. Cannon	Logan, Utah
Marie Carlson	Paris, Idaho
Ezra G. Carter	Berne, Switzerland
William L. Clarke	Ogden, Utah
D. R. Coombs	Salt Lake City, Utah
Ethel Davenport	Paris, Idaho
A. H. Dixon	Afton, Wyoming
George M. Fister	Ogden, Utah
Joseph D. Foster	Moab, Utah
B. A. Fowler	Tooele, Utah
George Gardner	Logan, Utah
Walter J. Glenn	Brigham, Utah
M. R. Gonzales	Manassa, Colorado
Mark H. Greene	American Fork, Utah
Katherine Elizabeth Groebli	Logan, Utah
Lon J. Haddock	Salt Lake City, Utah
E. S. Hallock	Salt Lake City, Utah
Chas. F. Hansen	Taylor, Arizona
Henry L. Hansen	Moab, Utah
James E. Haslam	Ogden, Utah
Hyrum J. Hartvigsen	123 West 61st St., New York City
Joseph Hickman	Logan, Utah
Edwin J. Holmgren	Richmond, Utah
LeGrande Hunsaker	Honeyville, Utah
Veda L. Hunsaker	Brigham, Utah
Norman Jensen	Union, Oregon
Olive E. Jensen	Brigham, Utah
Myrtle I. Johnson	Logan, Utah
Elmer E. Jonnson	Logan, Utah
Gordon I. Kirby	Battle Mountain, Nevada
Robert J. Kewley	Lafayette, Indiana
W. W. Knudson	Ithaca, New York
Ive E. Harmon	Wellsville, Utah
John I. Lauritzen	Logan, Utah
Mary Lucille Lee	Bingham, Utah
Arnold Lowe	
John Luscher	Preston, Idaho
Amy Lyman	Logan, Utah
Menzies Macfarlane	Salt Lake City, Utah
Vera M. Madsen	Hyrum, Utah
Anna M. Mathisen	American Fork, Utah
Bryant S. Martineau	Forestry Bldg., Ogden, Utah
Howard J. Maughan	Logan, Utah
William J. McCoy	Salt Lake City, Utah
Robert W. McMullin	Nephi, Utah
Virgil L. Minear	Salt Lake City, Utah
Ernest Mohr	Cedar City, Utah
Adella Morrell	Logan, Utah
Florence A. Munro	Logan, Utah
Phebe Nebeker Peterson	Logan, Utah
Etta Nelson	Logan, Utah
Junius F. Ogden	Richfield, Utah

Joseph W. Olsen .....	Richfield, Utah
Norman Vern Peterson .....	Monroe, Utah
John Henry Peterson .....	Smithfield, Utah
Herbert J. Pack .....	Salt Lake City, Utah
F. N. Poulson .....	Salt Lake City, Utah
W. D. Prosser .....	Salt Lake City, Utah
Sterling E. Price .....	Ogden, Utah
W. S. Rawlings .....	Salt Lake City, Utah
Harry S. Reed .....	Ogden, Utah
Evelyn Reilley .....	Salt Lake City, Utah
B. L. Richards .....	Logan, Utah
Abel S. Rich .....	Brigham, Utah
Lester A. Richardson .....	Pleasant Grove, Utah
Charles W. Reese .....	Paris, Idaho
David Sharp, Jr. ....	Cedar City, Utah
Pattie Barrett Sharp .....	Cedar City, Utah
Jos. F. Skinner .....	Spanish Fork, Utah
Leslie A. Smith .....	Logan, Utah
Frank D. Spencer .....	Salt Lake City, Utah
H. J. Stearns .....	Salt Lake City, Utah
George Stewart .....	Logan, Utah
Herman W. Stucki .....	Santa Clara, Utah
Samuel Van Tunks .....	Panhandle, Oklahoma
Lenore Ure .....	Salina, Utah
Louis B. Wangsgaard .....	Manti, Utah
Ione Wangsgaard .....	Manti, Utah
Vera Weiler .....	Richfield, Utah
Joseph P. Welch .....	Hinckley, Utah
Chas. H. West .....	Logan, Utah
John E. White .....	Hyrum, Utah
J. T. Worlton .....	Salt Lake City, Utah

# Twenty-First Annual Commencement

June, 1914

GRADUATES WITH DEGREES

*Bachelor of Science in Agriculture*

*Agronomy*

Anderson, Andrew P.....	Fillmore
Baker, William .....	Loa
Batt, William B.....	Logan
Barker, Joseph D.....	Ogden
Bracken, Aaron F.....	Stockton
Brossard, Roland Elmer.....	Logan
Bullen, Bryant .....	Logan
Christiansen, Archie L.....	Fountain Green
Christensen, Axell .....	Monroe
Christiansen, Hans A.....	Nephi
Christensen, John S.....	Salt Lake City
Clyde, Grover .....	Springville
Caine, Alfred B.....	Richmond
Griffin, Amos R.....	Newton
Hales, George Ray.....	Spanish Fork
Harris, Martin L.....	Monroe
Kerr, Gerald .....	Logan
Madsen, Roy M.....	Gunnison
Peart, John Kenneth .....	Woods Cross
Powell, Hartlett .....	Salt Lake City
Price, Ezra R.....	Salt Lake City
Stephens, Edwin W.....	Salt Lake City
Sorensen, Charles J.....	Hyrum
Thomas, Preston .....	Plain City
Young, Ernest Thomas.....	Brigham City
West, Charles H.....	Ogden

*Animal Husbandry*

Alder, Ferdinand C.....	Manti
Allen, Ethan Lasalle.....	Kingston
Frew, Eugene .....	Hooper
Hess, George Marion.....	Farmington
Ivins, Stanley S.....	Salt Lake City
Pond, William Leon.....	Lewiston
Parry, Gronway R.....	Salt Lake City

Shelley, Percy N.....	Logan
Snow, Joseph H.....	Kingston
Warnick, Adolphus P.....	Pleasant Grove

*Horticulture*

Goodspeed, William E.....	Salt Lake City
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*Chemistry*

Anderson, Hans P.....	Hyrum
Martineau, Charles F.....	Logan
Sharp, John A.....	Vernon
Stone, Merline J.....	Ogden
Richards, Bert L.....	Fielding

*Entomology*

Hagan, Harold R.....	Salt Lake City
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*Botany*

Hobson, Ivan L.....	Ogden
Lauritzen, John I.....	Moroni

*Agricultural Engineering*

Andrus, Lynn.....	Mammoth
Kidman, Lyman.....	Petersborough
McBride, Brice.....	Salt Lake City
Wooley, Ralph E.....	Grantsville

*Commerce*

Bowen, John E.....	Spanish Fork
Bearnson, Julius B.....	Spanish Fork
Clawson, Leo B.....	Providence
Ellertson, Jesse N.....	Mona
Janson, Gilbert L.....	Gunnison
Johnson, George A.....	Pocatello, Idaho
Nelson, David J.....	Logan
Pence, John O.....	Logan
Thain, Wilber E.....	Logan
Laurenson, Edward J.....	Logan
Parkinson, Ezra B.....	Logan

*General Science*

Argyle, Horace R.....	Spanish Fork
Bacon, Reginald R.....	Logan
Christensen, Parley A.....	Robin, Idaho
Chambers, Josephine.....	Salt Lake City

Fraser, Earl W.....	Salt Lake City
Gardner, Grandison .....	Logan
Hillman, Genevieve .....	Logan
Major, Jack .....	Ogden
Merrill, Preston R.....	Wellsville
McGregor, Charles P.....	Cleveland, Idaho
Justesen, Osmon .....	Wellsville
Reeder, Moses .....	Hyde Park
Richardson, Ivie .....	Logan
Thatcher, George W.....	Logan
Willard, Eda Gertrude .....	Strong, Maine

*Home Economics*

Agren, Ellen .....	Ogden
Cook, Rhoda B.....	Logan
Greenhalgh, Violet .....	Logan
Isaacson, May .....	Brigham
Nielson, Pearl C.....	Logan
Parrish, Afton .....	Farmington
Peters, Laura E.....	Nephi
Peterson, Nettie .....	Logan
Reese, Mary Naomi.....	King
Shaw, Mary A.....	Logan
Warnick, Effie .....	Pleasant Grove
Woodside, Jean R.....	Logan

*Mechanic Arts*

Christensen, Oswald .....	Logan
Wangsgard, Ernest .....	Salt Lake City

*Degree of Master of Science in Agriculture*

Hirst, Charles T.....	Logan
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## Honors, 1913-1914

**SCHOLARSHIP.** In order to encourage high scholarship the college council has instituted a College Roll containing the names of all students doing excellent work. This roll is divided into two groups: the first contains the names of those who have A or B in all their work; the second, the names of students who have A or B with one C.

For the year 1913-14 the following students were selected from the College Roll as deserving special distinction for high achievement in scholarship. They were, accordingly, publicly honored by receiving either a "Scholarship A" or "Honorable Mention" for scholarship:

### *Scholarship "A"*

William Baker  
David W. Smith  
Delore Nichols  
Effie Warnick  
George P. Barber  
Nellie Barker

### *Honorable Mention*

Lottie H. Kunz  
Barbara Pace  
Genevieve Hillman  
H. A. Christensen  
Irvine Nelson  
Harold Peterson

**DEBATING.** The following students represented the U. A. C. in intercollegiate debate:

Jack Major  
John E. Bowen  
John B. Walker  
Jesse Ellertson

**ORATORY.** The Hendricks medal and that offered by The Sons of the American Revolution were won by:

John E. Bowen  
Julius B. Bearnson

### **STUDENT BODY OFFICERS:**

George M. Hess, President  
Alfred B. Caine  
I. L. McAlister  
Adolphus P. Warnick

Annette Goodwin  
 William E. Goodspeed  
 John B. Walker  
 Archie L. Christiansen  
 John F. Wooley  
 Bryant Bullen  
 Vaughn Haws  
 Gronway R. Parry  
 Arthur H. Caine

STUDENT LIFE staff:

John O. Pence, Editor  
 Reginald Bacon  
 Genevieve Hillman  
 Langton Barber  
 Harold Peterson  
 Bryant Bullen  
 Lucile Hayball

BATTALION ROSTER, 1913-1914:

*Field and Staff Officers*

Lynn Andrus, Major  
 S. C. Perry, Captain and Adjutant  
 I. L. McAlister, Second Lieutenant and Quartermaster  
 S. L. Barber, Second Lieutenant

*Non-Commissioned Staff Officers*

Lynn H. Hale, Sergeant Major  
 Frances Corav, Color Sergeant  
 S. W. Riter, Quartermaster Sergeant  
 L. Davidson, Trumpeter Sergeant

*Band*

Guy B. Alexander, Chief Musician  
 Storm McDonald, Principal Musician  
 J. C. Odell, Drum Major  
 W. M. Doutre, Sergeant  
 E. S. Smith, Sergeant  
 C. P. Cannon, Sergeant  
 H. Hurst, Sergeant  
 W. G. Reese, Corporal  
 Orson Madsen, Corporal  
 V. Thorpe, Corporal  
 N. W. Christensen, Corporal

*Company A*

Captain, H. R. Pond  
 First Lieutenant, A. Peterson

Second Lieutenant, Edlef Edlefson  
First Sergeant, G. M. Dunford  
Sergeant, C. E. Cotter  
Sergeant, S. Madsen  
Sergeant, L. T. Ralph  
Sergeant, G. Heldberg  
Corporal, J. C. Toombs  
Corporal, E. P. Monson  
Corporal, C. W. Nisson  
Corporal, H. R. Maughan  
Corporal, A. Lindquist

*Company B*

Captain, C. P. Preston  
First Lieutenant, F. W. Lee  
Second Lieutenant, D. J. Cragun  
First Sergeant, L. Nuttal  
Sergeant, L. Monson  
Sergeant, V. Hendricks  
Sergeant, L. Tanner  
Corporal, S. K. Daniels  
Corporal, A. Bjorkman  
Corporal, Lloyd Tuttle  
Corporal, C. F. Smith

*Company C*

Captain, J. E. Hatch  
First Lieutenant, M. S. Johnson  
Second Lieutenant, W. H. Hendricks  
First Sergeant, L. J. Hailstone  
Sergeant, A. Dallof  
Sergeant, M. S. Budge  
Sergeant, E. C. Lorentzen  
Corporal, B. Alexander  
Corporal, W. A. Stephensen  
Corporal, J. C. Merrill  
Corporal, L. E. Carroll  
Corporal, W. L. Bearnson  
Corporal, H. Reader

# List of Students, 1913-1914

(Not including Farmers' Roundup and Housekeepers' Conference)

*In the following list "a" stands for agriculture; "ae" for agricultural engineering; "ho" for home economics; "c" for commerce; "ma" for mechanic arts; "g" for general science; "m" for music; "ss" for summer school; "w" for winter course; "G" for graduates; "S" for seniors; "J" for juniors; "So" for sophomores; "F" for freshman; "Sp" for special; "O" for optional; "4" for fourth year; "3" for third year; "2" for second year; "p" for practical course.*

Adams, J. V., 3-a	Logan
Adams, Jenette, ss	Logan
Adams, Katherine, ss	Layton
Allen, Geo. M., 3-g	Wellsville
Aebischer, Louise, ss	Logan
Affleck, Orville, w-c	Logan
Agren, Ellen, ho-S	Ogden
Alexander, B. H., a-2	Heber City
Alexander, Guy B., g-3	Logan
Alder, Ferdinand C., a-S	Manti
Alleman, Jos. G., c-J	Springville
Allen, Cyril J., g-2	Wellsville
Allen, Ethan la Salle, a-S	Kingston
Allen, Jeanette, ho-sp	Kingston
Allen, Mavil, g-sp	Cove
Allen, Robt. L., a-3	Grayson
Allen, Wm. J., ss	Wellsville
Allred, Lee, ss	Spring City
Anderson, Andrew P., a-S	Fillmore
Anderson, Andrew W., a-So	Fairview
Anderson, Geo., p-c	Lewiston
Anderson, Hans P., a-S	Hyrum
Anderson, Mirl, ho-So	Brigham
Andrews, Michael, ss	Logan
Argyle, Horace R., g-S	Spanish Fork
Aldous, Tura M., g-So	Ogden
Amussen, Geo. A., g-w	Logan
Andrus, Lyman, ae-S	Mammoth
Bacon, Helen, ho-F	Logan
Bacon, Reginald R., c-J	Logan
Badger, Leon, ma-W	Ogden
Baer, Margaret, ho-Sp	Providence
Bailey, Lew, g-W	Logan
Baker, Hazel, ss	Richfield
Baker, William, a-S	St. George
Ballantyne, Glenna, ho-F	Logan

Ballif, Leonard H., a-3.....	Logan
Bankhead, Bertha, ss.....	Levitt, Canada
Barber, Ellen, ho-2.....	Logan
Barber, George P., g-2.....	Logan
Barber, Mary, ho-Sp.....	Logan
Barber, Seth L., c-So.....	Logan
Barber, Solon R., g-2.....	Logan
Barber, Walter F., a-So.....	Logan
Barker, Joseph D., a-S.....	Ogden
Barker, Nellie, ho-J.....	Ogden
Barnard, Nellie, ss.....	Garland
Barney, Malinda, ss.....	Logan
Barnes, Herschel, a-2.....	Standrod
Barrett, Alonzo T., g-S.....	Logan
Barrett, Charles E., ss.....	Logan
Barrett, Edward, ss.....	Logan
Barron, George L., a-J.....	Logan
Bartlett, Henry, ma-W.....	Mendon
Barton, Fletcher, ss.....	Beaver
Barton, Ivan S., a-2.....	Logan
Barton, Mary L., g-G.....	Logan
Batt, William B., a-S.....	Logan
Blackhurst, Margaret, g-F.....	American Fork
Blair, Millington, a-3.....	Logan
Bracken, Aaron F., a-S.....	Stockton
Bradshaw, Daniel, a-3.....	Wellsville
Beach, Charles F., c-2.....	Logan
Beagley, Beatrice, ss.....	Nephi
Beagley, Egbert, a-So.....	Nephi
Bearnson, Julius B., c-S.....	Spanish Fork
Bearnson, William L., c-F.....	Kenilworth
Beatie, Nelson R., a-p.....	Salt Lake
Beck, Ray, ss.....	Spring City
Bennion, Lavon, ho-3.....	Logan
Bennion, Lora, ho-2.....	Logan
Bennion, Mary, ho-J.....	Salt Lake
Benson, Emory H., a-2.....	Newton
Benson, Gretta R., ho-J.....	Helena, Montana
Benson, Hazel, ss.....	Newton
Benson, Hedvig, ho-J.....	Logan
Benson, John P., a-J.....	Newton
Benson, Norma, ss.....	Newton
Bentley, Isaura, c-2.....	Logan
Bergeson, Bernard, c-W.....	Logan
Berry, Eva, ho-Sp.....	Springville
Bingham, Martha, c-2.....	Logan
Bingham, Sanford L., a-Sp.....	Logan
Bingham, Wilford H., a-3.....	Logan
Birch, Byron, ac-So.....	Coalville
Bird, Heber G., ss.....	Manti
Bird, Laura, ho-Sp.....	Springville
Blickensderfer, J. Alma, ae-2.....	Logan
Brighton, William C., a-So.....	Holliday

Boswell, Stephen R., a-So.....	Nephi
Booth, John A., a-J.....	Nephi
Bowen, Allie, ss.....	Ogden
Bowen, Edith, ss.....	Logan
Bowman, May, ss.....	Ogden
Bowman, Nell, ss.....	Ogden
Bown, Hyrum B., a-So.....	Manti
Bowen, John E., c-S.....	Spanish Fork
Bowers, Ernest, a-So.....	Nephi
Bjorkman, Arthur E., g-3.....	Logan
Brossard, Howard S., ae-So.....	Logan
Brossard, Roland E., a-S.....	Logan
Brown, Carrie, ho-2.....	Logan
Brown, Eva, ss.....	Ogden
Brown, Laurel, c-So.....	Ogden
Brown, Merle E., a-W.....	Draper
Brown, Scott B., a-F.....	Logan
Brown, William W., a-So.....	Manti
Budge, Scott M., g-2.....	Logan
Budge, Wallace H., g-3.....	Logan
Bullen, Bryant, a-S.....	Richmond
Burgon, Veva, ss.....	Garland
Burnham, Caroline, ho-Sp.....	Logan
Burnham, Edna, ss.....	Brigham
Burnett, Grover, a-So.....	Logan
Burnham, Pauline, ho-Sp.....	Salt Lake
Burris, Mae Louise, c-p.....	Logan
Burt, Kenneth, a-So.....	Springville
Burton, Richard W., c-F.....	Salt Lake
Butt, Newbern I., a-J.....	Lehi
Buttars, Tommy, a-W.....	Clarkston
Blucher, Mary J., ss.....	Salt Lake
Cahoon, Geo. E., a-J.....	Murray
Cahoon, Spencer, c-So.....	Logan
Caine, Alfred B., a-S.....	Richmond
Caine, Arthur, a-So.....	Richmond
Calvert, Alta, ho-So.....	Ogden
Call, Cyril J., a-w.....	Willard
Callaghan, Bessie, ss.....	Ogden
Candland, Guy L., a-So.....	Mt. Pleasant
Candfield, Chas. I., c-2.....	Logan
Cannon, Clyde P., ae-So.....	Logan
Cannon, Marguerite, 8-J.....	Logan
Card, Orson Rega, mo-F.....	Logan
Cardon, Grace, ss.....	Logan
Cardon, Harriet C., ho-3.....	Logan
Carlson, Frederick J., mo-2.....	Oxford, Ida.
Carlson, Olga, ss.....	Logan
Carlson, Raymond W., c-J.....	Logan
Carlson, Torval P., ma-W.....	Preston, Idaho
Carlson, V. S., g-2.....	Logan
Carlson, Wm. R., a-3.....	Ogden
Carlyle, Martha A., ho-3.....	Logan

Carrington, A. C., sp.....	Logan
Carrington, Mrs. Fay, g-Sp.....	Logan
Carroll, D. S., a-2.....	Vernal
Carroll, Leroy, a-F.....	Vernal
Carroll, Orval, a-2.....	Logan
Carson, La Rue, ho-So.....	Richmond
Catmull, N. O., c-2.....	Logan
Chambers, Josephine, ss.....	Logan
Chambers, Vera, ss.....	Smithfield
Clark, Edward J., a-sp.....	Logan
Clark, Ernest, ss.....	Logan
Clark, Lucius, ss.....	Logan
Clark, Rebecca, ss.....	Logan
Clark, Lester L., ma-2.....	Clarkston
Clark, Wm. L., g-G.....	Provo
Clawson, August J., ss.....	Hyrum
Clawson, Elmer C., g-2.....	Providence
Clawson, Leo B., c-S.....	Providence
Clayton, Irvin, a-So.....	Salt Lake
Cragun, Dresden J., a-F.....	Smithfield
Cragun, James A., mo-sp.....	Smithfield
Cragun, Lavon, ss.....	Smithfield
Clyde, Dean, a-w.....	Heber
Clyde, Lynn, a-w.....	Heber
Clyde, Grover, a-S.....	Springville
Creer, Rulon, a-So.....	Spanish Fork
Childs, Alice, ss.....	Lima, Montana
Chipman, Auburn C., ss.....	American Fork
Chipman, Florence, ho-So.....	American Fork
Christensen, Aaron D., ae-So.....	Fairview
Christensen, Axel, a-So.....	Monroe
Christensen, Gladys, ho-So.....	Logan
Christensen, James V., ma-W.....	Smithfield
Christensen, Mary, ss.....	Salina
Christensen, Oswald, ma-S.....	Logan
Christensen, Parley N., g-S.....	Robin, Idaho
Christiansen, Archie L., a-S.....	Fountain Green
Christiansen, Edna M., ho-Sp.....	Mayfield
Christiansen, ElRoy L., a-2.....	Mayfield
Christiansen, Hans A., a-S.....	Nephi
Christiansen, Nels W., a-J.....	Mayfield
Christiansen, John S., a-S.....	Salt Lake
Criddle, Estella, ho-Sp.....	Mayfield
Criddle, Lawrence I., a-2.....	Syracuse
Cole, Ira A., a-G.....	Logan
Cole, Truman J., c-G.....	Logan
Collett, Elsie, ho-F.....	Roosevelt
Collett, Reuben S., a-w.....	Roosevelt
Connell, Jos. W., ma-So.....	Parowan
Cook, Alfonzo L., a-S.....	Garden City
Cook, Caddie, ho-Sp.....	Salt Lake
Cook, Chester H., ae-p.....	Salt Lake
Coombs, Iris, ho-4.....	Fielding

Coombs, Lester, a-p	Fielding
Cooper, Vida, ho-J	Brigham
Coray, Francis, a-Sho	Ogden
Costley, Dallas W., g-2	Ogden
Cotter, Clarence E., g-J	Lehi
Covington, Bergetta, ho-Sp	Orderville
Cowley, Laura, ss	Logan
Cox, Alvin C., g-J	Manti
Cox, Jean, c-Sp	Logan
Cox, Orlo, ss	Huntington
Choules, Richard, ss	Preston, Idaho
Crook, Ray, a-3	Garden City
Crook, William C., a-F	Heber
Crookston, Byron, a-3	Logan
Crookston, Laura E., a-3	Logan
Crookston, Robert B., a-O	Logan
Crookston, Spencer C., a-2	Logan
Crowthers, William H., ss	Logan
Curtis, Irvin, a-So	Richfield
Cutler, Ethel, ho-S	Logan
Churchman, Edith, ho-3	Fish Haven, Idaho
Dahlstrom, Ethel, ho-F	Idaho Falls
Daines, Laverne H., c-Sp	Logan
Dallof, Albert, c-J	Smithfield
Danielsen, Esther, ss	Lewiston
Daniels, Shirley K., a-J	Vernal
Daniels, Virginia, ss	Logan
Darby, Archibald E., a-S	Wellsville
Davidson, Amasa, ss	Logan
Davidson, Edith, g-O	Logan
Davidson, Leonard, a-J	Ogden
Davidson, Martha, g-O	Logan
Davidson, Mrytle, g-O	Logan
Davies, Fred S., ss	Provo
Daw, Royal H., ss	Salt Lake
Dean, Frank E., c-So	Bingham
Dean, Harold K., a-G	Logan
Dean, Lee, a-3	Bingham
Dewey, James L., ss	Dewey
DeWitt, Rob. R., c-w	Ogden
Dinsmore, Florence E., ho-So	Ogden
Doney, William, a-3	Logan
Dorius, Ray E., ss	Salt Lake
Dorton, Virgil, a-So	Lehi
Douglas, Maud, ss	Wellsville
Doutre, William, c-So	Logan
Dudley, Park, ss	Logan
Dunbar, George L., a-p	Logan
Dunford, Bailey, a-3	Logan
Dunford, Carlos L., a-O	Salt Lake
Dunford, George M., c-2	Logan
Dunford, Grover C., c-So	Logan
Dunford, James L., ma-4	Bloomington, Ida.



Dunn, Simeon A., a-2.....	Logan
Durtschi, Fred, ma-2.....	Midway
Eames, Irvin, a-w.....	Ogden
Earl, Frank M., c-w.....	Logan
Edwards, Mcclairon, g-w.....	Logan
England, Della, ho-Sp.....	Logan
England, Virginia, ho-2.....	Logan
Erdman, Ethel, ss.....	Brigham
Evans, Lawrence H., ae-S.....	Nephi
Evans, Sterling J., g-F.....	Provo
Eccles, Emma, ho-2.....	Logan
Eccles, Jessie, g-F.....	Logan
Eccles, Mariner S., c-Sp.....	Logan
Eccles, Spencer, c-3.....	Logan
Edlefsen, Edlef, a-F.....	Logan
Edlefsen, Jane F., c-p.....	Salt Lake
Egbert, Archie, a-Sp.....	Logan
Egbert, Delmar, a-3.....	Logan
Egbert, Elsie, ss.....	Preston
Egbert, George L., a-So.....	Lewiston
Elder, Lillian S., ss.....	Salt Lake
Ellertson, Jesse N., c-S.....	Mona
Empey, Homer, a-w.....	Salt Lake
Empey, Ray, g-F.....	Logan
Egginton, Elizabeth, ss.....	Ogden
Ellis, Rebecca, c-2.....	Logan
Ensign, Dewey R., a-w.....	Ogden
Esplin, Alma, a-So.....	Orderville
Esplin, Eleanor P., ho-2.....	Orderville
Ellsworth, John O., a-J.....	Logan
Ellsworth, Orba, c-J.....	Logan
Fairbourn, Ford, a-J.....	Salt Lake
Faux, Goldie, ho-So.....	Moroni
Frandsen, Ernest, ss.....	Redmond
Fraser, Earl W., ss.....	Salt Lake
Fenton, Robet A., a-2.....	Erda
Fletcher, David S., c-So.....	Ogden
Freedman, D. A., a-So.....	Salt Lake
Freeman, Wilford, a-So.....	Brigham
Frew, Arnold, a-So.....	Hooper
Frew, Eugene, a-S.....	Hooper
Finley, Jno., a-J.....	Springville
Fisk, Bradford T., g-O.....	Grand Island, Neb.
Fitzgerald, Berton M., ma-F.....	Bingham
Forbes, Clarence H., ma-J.....	Ogden
Fordham, Albert, a-Sp.....	Santa Clara
Foster, Winifred, ho-3.....	Whitney, Idaho
Fowler, David H., g-J.....	Hooper
Flowers, Malinda, ss.....	Standrod
Frodsham, Mary, ho-So.....	Rockland, Idaho
Froerer, Fred, ss.....	Huntsville
Frogner, Sybil, ho-3.....	Hyrum
Fulmer, Effie, ho-J.....	Logan

Gardner, Anthony S., a-F.....	Logan
Gardner, Grandison, ss.....	Logan
Gardner, Marie, g-F.....	Logan
Gardner, Robert, g-So.....	Logan
Garn, Breta, ho-So.....	Farmington
Grant, Mary, ss.....	Hyde Park
Gray, Frances, ss.....	Perry, Idaho
Gray, Hazel, ho-So.....	Salt Lake
Glesing, Ella, g-Sp.....	Logan
Greaves, Card, c-F.....	Preston, Idaho
Greco, Elof M., ma-w.....	Richfield
Green, Ambrose L., ma-2.....	Clover
Green, Harry M., a-So.....	Salt Lake
Greenhalgh, Truman T., g-3.....	Logan
Greenhalgh, Violet, ho-S.....	Logan
Greenwood, Josie, ss.....	American Fork
Gregerson, Grant, a-F.....	St. George
Griffin, Amos R., a-S.....	Newton
Godbe, Lawrence, ae-J.....	Salt Lake
Goodspeed, William E., a-S.....	Salt Lake
Goodwin, Annette, g-J.....	Logan
Goodwin, Charles H., a-Sp.....	Logan
Goodwin, Clarence, c-w.....	Logan
Goodwin, William D., ma-p.....	Cornish
Gottfredson, Ruth, ss.....	Salina
Gowers, Ray, ma-S.....	Nephi
Groebli, Gladys, c-3.....	Logan
Groebli, George, c-2.....	Logan
Groebli, Jacob, ma-w.....	Logan
Groebli, Katherine E., ss.....	Logan
Hafen, Harmon V., ae-So.....	Santa Clara
Hagan, Mrs. Blanche, ho-Sp.....	Salt Lake
Hagan, Harold, a-S.....	Salt Lake
Hailstone, J. Leland, a-F.....	Logan
Hailstone, Jane M., ac-2.....	Logan
Hale, Ethel, ho-So.....	North Logan
Hale, Libbie, g-So.....	Preston, Idaho
Hale, Lyman H., c-3.....	Preston, Idaho
Hales, George Ray, a-S.....	Spanish Fork
Halgren, Denzil A., c-4.....	Franklin, Idaho
Halgren, Edith A., ho-2.....	Franklin, Idaho
Halling, Bertha, ss.....	Geneva
Halling, Rosetta, ss.....	Geneva
Halversen, William V., ae-So.....	Spanish Fork
Hamell, Marguerite, g-O.....	Ogden
Hammond, Floyd A., ae-So.....	Logan
Hansen, Alma W., a-3.....	Logan
Hansen, Edward B., g-F.....	Logan
Hansen, Hortense Luella, ho-J.....	Salt Lake
Hansen, Levinna, ss.....	Providence
Hansen, Parley, c-p.....	Logan
Harris, Martin Lott, a-S.....	Monroe
Harris, Wanda, ho-Sp.....	Fielding

Harris, Walter M., c-2	Superior, Wyoming
Harrison, Priel, ho-F	Logan
Hatch, Abe, c-p	Vernal
Hatch, Aura C., a-2	Logan
Hatch, Joseph E., c-g	Logan
Hatch, Lerleen C., a2	Logan
Hatch, Lorenzo B., c-2	Logan
Haws, Arlington, ae-2	Logan
Haws, George G., a-Sp	Logan
Haws, Vaughan, a-F	Logan
Hayball, Edith, g-Sp	Logan
Hayball, Lucile, ho-Sp	Logan
Heatin, William H., ae-2	Orderville
Hegsted, Orville, a-2	Salt Lake
Heldberg, Gustav O., a-F	Logan
Heldberg, Richard E., a-3	Logan
Hendricks, B. V., a-3	Logan
Hendricks, David, ss	Lewiston
Hendricks, John Allen, ae-So	Logan
Hendricks, Lurea, ho-3	Richmond
Hendricks, Lorin A., a-3	Richmond
Hendricks, Lenoll P., g-w	Logan
Hendricks, Nellie, g-Sp	Logan
Hendricks, Veda, c3	Logan
Hendricks, Walstein H., a-So	Richmond
Hendricksen, Allen V., a-2	Murray
Hess, George M., a-S	Farmington
Heyrend, Wilford F., c-So	Logan
Hyde, Beth, ho-F	Logan
Hyde, Lyle, ho-2	Logan
Hickman, Joseph, g-G	Logan
Hickman, Othello, a-So	Provo
Hill, Edith, ss	Franklin, Idaho
Hill, Ethel, g-O	Franklin, Idaho
Hillam, LeRoy W., a-So	Salt Lake
Hillman, Genevieve, g-S	Sunnydale, Idaho
Hincks, Geneva, ho-Sp	Logan
Hindley, Eliza, ss	American Fork
Hindley, Edith, ss	American Fork
Hirst, Charles T., g-S	Logan
Hobson, George C., ss	Ogden
Hobson, Ivan L, a-S	Ogden
Hodapp, Frederick, a-J	Providence
Hodges, Elizabeth, ss	Garden City
Hodges, Mrs. Maud, ho-Sp	Logan
Hodson, Edith, ss	Warren
Hoehn, Catherine, ss	Ogden
Hoffman, Albert L., a-w	Randolph
Hoffman, Raymond L., a-w	Randolph
Holmgren, Andrea, ss	Bear River City
Holmgren, Edwin, ss	Bear River City
Horne, J. Feramorz, a-F	Salt Lake
Horsley, Stewart, a-J	Brigham

Housley, Orva, c-Sp.....	Wellsville
Hovey, Izene, c-J.....	Millville
Hovey, Sidney G., c-So.....	Millville
Howells, Byron, c-F.....	Logan
Hubbard, Eliza, ss.....	Willard
Hubbard, Milton E., a-w.....	Willard
Hudman, Mabel, ho-Sp.....	Ogden
Huffaker, Rawsel V., a-J.....	Tooele
Hulet, Hope, ho-Sp.....	Peterson
Humpherys, Asia, c-3.....	Logan
Humpherys, Caddie, c-J.....	Logan
Humpherys, Emiline, ss.....	Logan
Humpherys, LeGrande R., g-P.....	Logan
Humpherys, Rhoda, g-Sp.....	Salina
Hunsaker Vernetta, ss.....	Honeyville
Hunter, David Lloyd, a-w.....	St. Anthony
Hunter, Herbert, a-p.....	Salt Lake
Hunter, Rose B., g-3.....	Salt Lake
Hurst, Hugh, a-F.....	Logan
Ingram, Alonzo, ss.....	Nephi
Ivins, Stanley, a-S.....	Salt Lake
Isaacson, May, ho-S.....	Bingham
Izatt, Angus, ss.....	Logan
Izatt, Irene, ss.....	Logan
Jackson, Donel P., a-F.....	Lewiston
Jackson, Wilder D., g-So.....	Logan
Jacobson, Evan A., a-w.....	Oak City
Jacobson, Eunice, ss.....	Logan
James, Amasa E., ma-w.....	Park Valley
James, Maggie, ss.....	Providence
Jamison, Peery, a-3.....	Lewiston
Janson, Gilbert L., c-S.....	Gunnison
Jenkins, Dale S., a-2.....	Logan
Jensen, Bessie D., c-G.....	Logan
Jensen, Chrystal A., ho-Sp.....	Mt. Pleasant
Jensen, Irma, ho-F.....	Heber City
Jensen, Eliza, ss.....	Sandy
Jensen, Hans E., ss.....	Ephraim
Jensen, Ida, ss.....	Heber City
Jensen, Peter D., ss.....	Ephraim
Jensen, Vera, ss.....	Logan
Jensen, Vernal, a-w.....	Providence
Jensen, Wm. C., Jr., a-2.....	Providence
Jeppesen, Evelyn, ho-So.....	Gereva
Jeppson, Anthony, a-w.....	Logan
Jewkes, Ivan W., ma-p.....	Fountain Green
Johnson, Avid H., g-3.....	Salt Lake
Johnson, Austin, ma-2.....	Hoden
Johnson, Chas. H., g-2.....	Vernal
Jonson, Elin, ho-Sp.....	Logan
Johnson, Floyd, a-So.....	Hyde Park
Johnson, Francis A., a-p.....	Hooper
Johnson, Geo. A., c-S.....	Pocatello, Idaho

Johnson, Hyrum E., ss.....	Pleasant Grove
Jonson, Hilma, go-O.....	Logan
Johnson, Harvey, ma-2.....	Preston, Idaho
Johnson, Irene, ss.....	Pleasant Grove
Johnson, Laurence O., c-2.....	Logan
Johnson, Mark S., c-F.....	Holden
Johnson, Rollo, ss.....	Huntington
Johnson, Rush, ho-So.....	Logan
Jonsson, Reuben, a-3.....	Logan
Johnson, Thomas S., ss.....	Castle Dale
Johnson, Thaddeus, ma-2.....	Holden
Jolley, Lafayette, ss.....	Washington
Jones, David W., a-So.....	Logan
Jones, Earl T., a-J.....	Lehi
Jones, Eliza A., ho-So.....	Newton
Jones, Hilda B., g-O.....	Logan
Jones, J. P., a-2.....	Wellsville
Jones, John L., ae-J.....	Monroe
Jones, Mary, ho-Sp.....	Ogden
Jones, Rose, ss.....	Logan
Jones, Reta, ho-F.....	Monroe
Jones, Reuben M., a-F.....	Brigham
Jones, Ruth, ss.....	Wellsville
Jones, T. Vernon, a-w.....	Payson
Jones, Wm. L., ss.....	Wellsville
Jordan, Alva J., a-w.....	Walsburg
Judd, Andrew J., ss.....	Manti
Judd, Lyle P., a-3.....	Salt Lake
Justesen, Osmon, g-S.....	Provo
Kartchner, Linda, ss.....	Logan
Kjar, Clinton, a-So.....	Manti
Kent, Meredith, ss.....	Logan
Kerr, Gerald, a-S.....	Logan
Kewley, Alice, ss.....	Logan
Kidgell, Lily, ho-2.....	Logan
King, Eliza, ss.....	North Logan
Kirkbride, James W., g-O.....	Smithfield
Kidman, Lyman, ae-S.....	Petersboro
Kloepfer, Rachel, ho-F.....	Logan
Knowles, Hazel, ss.....	Logan
Kunz, Lottie H., ho-So.....	Logan
Knudson, Earl J., c-So.....	Brigham
Knudson, Ethel E., ho-Sp.....	Brigham
Knudson, J. Floyd, a-J.....	Brigham
Lamb, Curtis, ss.....	Coalville
Larsen, Ada, ss.....	Logan
Larsen, Estella, ho-3.....	Logan
Larsen, Hazel, ho-Sp.....	Logan
Larsen, James A., a-p.....	Fairview
Larsen, Naomi, ho-2.....	Logan
Larsen, Parley, a-w.....	Logan
Larsen, Rudolph V., c-J.....	Smithfield
Larsen, Ruth, ss.....	Garland

Larsen, Vera, c-2.....	Mendon
Larson, Roldo, a-p.....	Axtel
Latimer, Dana, c-p.....	Salt Lake
Laurenson, Edward J., c-S.....	Logan
Lauritzen, John I., a-G.....	Moroni
Leatham, Robert P., ss.....	Wellsville
Leatham, William P., ss.....	Wellsville
Leavitt, Elmer, a-w.....	Richfield
Lee, Eli F., a-So.....	Brigham
Lee, Fay, Warren, a-J.....	Hoytsville
Lee, Hazel, ho-So.....	Rigby, Idaho
Lewis, Grover, a-F.....	Logan
Lyle, Wesley B., ae-3.....	Rigby, Idaho
Liljenquist, Lucy, ss.....	Hyrum
Lindblade, Victor, a-2.....	Logan
Linford, William B., ma-3.....	Logan
Lindquist, Ariel, a-3.....	Logan
Little, Addie, ss.....	Kanab
Loosle, Reuben, a-w.....	Clarkston
Lorentzen, Edwin C., a-3.....	Salina
Love, Viola, ho-3.....	Salt Lake
Lovendale, Laura, ss.....	Salt Lake
Low, George Oliver, ma-w.....	Cardston, Canada
Low, Morris D., a-J.....	Providence
Lowe, Lester D., c-2.....	Franklin, Idaho
Lloyd, Nell, ss.....	Logan
Lundberg, Lynne, c-So.....	Ogden
Lundstrom, Oscar G., c-2.....	Logan
Luke, Melvin, ma-So.....	Junction
McAllister, Chas. K., c-2.....	Logan
McAlister, Irvine L., a-F.....	Logan
McAlister, Wallace S., a-So.....	Logan
McAlister, Ward R., a-S.....	Logan
McBride, Brice, ae-S.....	Salt Lake
McClellan, Scott, a-w.....	Payson
McCullock, Ella, c-2.....	Logan
McCullock, Lawrence, a-3.....	Logan
McDonald, Storm, ae-So.....	Heber City
McGregor, Chas. P., g-S.....	Cleveland, Idaho
McMullin, Thomas, a-w.....	Heber City
McMullin, Wm., ss.....	Logan
McMurrin, Edith, c-p.....	Logan
Mackelprang, Irene, ss.....	Cedar City
Madsen, Orson, a-So.....	Manti
Madsen, Roy M., a-S.....	Garrison
Madsen, Stanford, ae-So.....	Manti
Mahoney, Rollo, ss.....	Heber City
Major, Jack, g-S.....	Ogden
Major, Robert W., g-So.....	Ogden
Marble, Edwin H., ss.....	Logan
Marshall, Frederick W., c-p.....	Logan
Martineau, Chas. F., a-S.....	Logan
Martineau, Claire, ho-So.....	Logan

Maughan, Ada, ss.....	Logan
Maughan, Armenia, ho-Sp.....	Logan
Maughan, Edward L., a-2.....	Logan
Maughan, Howard J., a-G.....	Logan
Maughan, J. Howard, a-So.....	Logan
Maughan, Lavinia, ss.....	Logan
Maughan, Rew H., a-3.....	Hyrum
Maughan, Wm. H. B., ss.....	Wellsville
Maw, Wilmer J., a-w.....	Plain City
Mayer, Clifford, ae-J.....	Bingham
Mease, James, c-p.....	Vernal
Meek, Benjamin A., a-3.....	Logan
Merrill, Don C., a-3.....	Richmond
Merrill, Gladys, ho-2.....	Smithfield
Merrill, John C., a-3.....	Richmond
Merrill, Harrison R., c-Sp.....	Logan
Merrill, Ruel D., g-So.....	Richmond
Merrill, Vera S., ho-F.....	Richmond
Meserve, Bertha, ss.....	Salt Lake
Mickelsen, Klea H., ho-Sp.....	Logan
Miles, Hazel, ss.....	Smithfield
Miles, Jennie, ss.....	Paradise
Miles, Joan, ss.....	Smithfield
Miller, Archie D., a-p.....	Ogden
Miller, Roland H., c-p.....	Logan
Miner, James A., a-F.....	Salt Lake
Milne, Irvin L., a-F.....	Sandy
Mohr, Andrew J., a-F.....	Logan
Mohr, Anna, ho-So.....	Logan
Molyneaux, A. Ray, ma-w.....	Logan
Molyneaux, Carl, ma-2.....	Logan
Monson, Ezra P., c-3.....	Franklin, Idaho
Monson, LeRoy, c-So.....	Logan
Monson, Wm. A., c-F.....	Logan
Moore, Chas. H., a-p.....	Castle Rock
Moore, Harry, c-2.....	Kimberley, Idaho
Morgan, Kate, g-O.....	Logan
Morrill, Rupert, ae-J.....	Circleville
Morrison, Alice, ho-J.....	Brigham
Mortensen, Lowell J., a-So.....	Brigham
Mortensen, Martin, ae-So.....	Thatcher, Ariz.
Moses, Elmer W., a-3.....	Smithfield
Moses, Phoebe, ho-2.....	Smithfield
Mouritsen, Emma, L., ho-J.....	Logan
Munk, Cyril K., c-2.....	King
Murdock, Wallace, a-So.....	Heber City
Munroe, Florence, g-G.....	Logan
Murray, Elva, ss.....	Wellsville
Murray, Louise E., g-Sp.....	Athens, Pa.
Nash, Bartlett, a-3.....	Franklin, Idaho
Nash, Fern A., g-2.....	Franklin, Idaho
Nash, Laura, c-3.....	Franklin, Idaho
Naylor, Clifford W., ae-F.....	Salt Lake City

Nebeker, Marie, m-Sp.....	Logan
Nebeker, Quill, a-w.....	Willard
Nelson, Anna, ho-F.....	Mink Creek, Idaho
Nelson, Agnes, ho-3.....	Logan
Nelson, D. J., c-S.....	Logan
Nelson, Estella, ho-F.....	Logan
Nelson, Enoch, ss.....	Logan
Nelson, Etta, ss.....	Logan
Nelson, Freda, g-O.....	Brigham
Nelson, Irvin T., a-So.....	Morgan
Nelson, Jennie D., ss.....	Logan
Nelson, Lowry, a-So.....	Ferron
Nelson, Lloyd, ma-w.....	Ferron
Nelson, Luella, ho-4.....	Logan
Nelson, Myrtle, ss.....	Logan
Nelson, Myra, c-2.....	Logan
Nelson, Olif H., ae-J.....	Logan
Nelson, Ross, c-w.....	Oakley, Idaho
Nelson, Rebecca A., c-p.....	Logan
Newey, Aaron, c-G.....	Logan
Newman, Bessie A., ss.....	Pleasant Grove
Nibley, Carlyle, g-2.....	Logan
Nibley, Florence, ho-3.....	Logan
Nibley, Margaret, g-O.....	Logan
Nichols, A. Delore, a-O.....	Brigham
Nichols, Bernard, a-So.....	Brigham
Nielson, Carl A., a-w.....	W. Anthony
Nielson, Ella, ho-F.....	Monroe
Nielsen, Geo. W., ma-w.....	Hyrum
Nielsen, Glen Z., ma-2.....	Axtell
Nielsen, Hyrum J., a-3.....	Logan
Nielsen, Niels K., ss.....	Springville
Nielsen, Mrs. Niels K., ss.....	Springville
Nielsen, Pearl, ho-S.....	Logan
Nielsen, Vera E., ho-F.....	Logan
Nielsen, Wilford E., a-J.....	Richfield
Nisson, Clarence W., c-4.....	Logan
Nordquist, Hilda, ho-Sp.....	Ogden
Norman, Alta, ho-Sp.....	Logan
Norman, Blanche, ho-Sp.....	Logan
Nuttal, Leonard G., ae-So.....	Manchester, England
Obray, Isabella, ss.....	Paradise
Oldham, Delia, ss.....	Paradise
Oldham, Mabel, ss.....	Paradise
Odell, Joseph C., a-3.....	Logan
Ogden, Louise, ho-So.....	Pleasant Grove
Olsen, Daniel F., a-J.....	Murray
Olsen, Daniel K., a-w.....	Ephraim
Olsen, Esther, ho-So.....	Logan
Olson, Frank, ma-w.....	Logan
Olsen, Hilda, ss.....	Hyrum
Olsen, Ingra, ss.....	Smithfield



Olsen, Leo, a-w.....	Lewiston
Olsen, Orson, a-w.....	Monroe
Olsen, Pearl, c-4.....	Logan
Orme, John A., a-w.....	Tooele
Ostler, Ruby, ho-J.....	Salt Lake
Otte, Joseph E., a-Sp.....	Logan
Owen, Cyril B., a-So.....	Wellsville
Owen, Grettle B., ho-F.....	Wellsville
Oldroyd, Colleen, ho-Sp.....	Glenwood
Oldroyd, Lorin T., a-So.....	Glenwood
Orton, Joseph A., ma-w.....	Ogden
Osmund, Charles A., g-So.....	Logan
Osmund, Ruby, ho-2.....	Logan
Ostlund, Lillian T., ho-J.....	Logan
Pace, Barbara, g-So.....	Price
Pace, Carl, c-3.....	Loa
Packard, David R., c-J.....	Springville
Page, Irma, ho-Sp.....	Marysvale
Palmer, Asael E., g-F.....	Raymond, Canada
Palmer, Valentine W., c-3.....	Logan
Park, Libbie, ho-So.....	Logan
Parker, Clyde L., ae-So.....	American Fork
Parker, Sarah, ho-J.....	American Fork
Parkinson, Alice, ho-Sp.....	Logan
Parkinson, E. Benson, c-S.....	Logan
Parkinson, Karma, ho-2.....	Logan
Parrish, Afton, ho-S.....	Farmington
Parry, Brigham, a-w.....	Logan
Parry, Charlotte, ss.....	Manti
Parry, Gronway R., a-S.....	Salt Lake
Parry, Martha, ss.....	Logan
Parry, Vaughn, ss.....	Logan
Parry, Winifred, ss.....	Manti
Paskett, Elsie, ss.....	Henefer
Passey, Edward J., ss.....	Paris, Idaho
Payson, Kenneth, ae-So.....	Logan
Peacock, Byron C., ma-p.....	Emery
Peacock, Ella, ho-p.....	Emery
Pearson, Essie, c-2.....	Logan
Peart, J. Kenneth, a-S.....	Woods Cross
Pence, John O., c-S.....	Logan
Pense, Thurston, a-3.....	Logan
Pendleton, John H., ma-So.....	Parowan
Pendleton, Warren, ma-So.....	Parowan
Perry, Stephen C., a-J.....	Ogden
Peters, George, ma-2.....	Boulder
Peters, Laura E., ho-S.....	Nephi
Peterson, Anthon O., a-F.....	Logan
Peterson, Donna, ho-2.....	Logan
Peterson, Edna L., c-3.....	Smithfield
Peterson, Esther, ss.....	Hyrum
Peterson, Ferdinand A., c-p.....	Redmond

Peterson, Harold, g-F.....	Logan
Peterson, Hugh C., g-So.....	Preston, Idaho
Peterson, La Voyle, ho-2.....	Logan
Peters, Laura, ss.....	Salt Lake
Peterson, Lillie, ss.....	Smithfield
Peterson, Laurence, a-w.....	Ephraim
Peterson, Martin B., a-J.....	Riverton
Peterson, Nettie, ho-S.....	Logan
Peterson, Othelia, ho-J.....	Logan
Peterson, Quayle, a-So.....	Ephraim
Peterson, Soren P., ss.....	Manti
Peterson, Violet, ss.....	Smithfield
Peterson, William O., a-2.....	Logan
Pett, Ella, ss.....	Brigham
Pettit, Mabel, ss.....	Coalville
Preston, Clayton P., g-3.....	Logan
Preston, William B., ss.....	Logan
Pickett, Ray, g-w.....	Providence
Price, Ezra R., a-S.....	Salt Lake
Friday, Chloe, ss.....	Logan
Pond, Horace, a-So.....	Lewiston
Pond, Mary, ho-F.....	Lewiston
Pond, Preston, c-F.....	Lewiston
Pond, William L. a-S.....	Lewiston
Porter, Anna, c-3.....	Franklin, Idaho
Porter, Alberta, ho-F.....	Logan
Porter, Ina, ho-3.....	Logan
Porter, Parley M., a-2.....	Logan
Porter, Ralph O., ss.....	Morgan
Porter, Thomas H., ss.....	Logan
Powell, Hartlett, a-S.....	Salt Lake
Powell, Morrel, a-F.....	Coalville
Pugmire, Stella, ss.....	St. Charles, Idaho
Pulley, Edward P., g-G.....	Logan
Quayle, William ss.....	Logan
Quinn, Charles, ss.....	Salt Lake
Ralph, Clara, ss.....	Salt Lake
Ralph, Leonard T., c-4.....	Logan
Ralph, Ross P., c-Sp.....	Landing, Idaho
Ratcliff, Robt. R., a-S.....	Provo
Rawlins, Fern, ss.....	Lewiston
Raymond, Goodwin, a-3.....	Smithfield
Raymond, Loila, ss.....	Smithfield
Reader, Harold, c-2.....	Vernal
Reeder, Moses, g-S.....	Hyde Park
Reese, David L., a-p.....	Logan
Reese, Ione, ho-J.....	King
Reese, Jesse L., a-2.....	Benson
Reese, Naomi, ho-S.....	King
Rees, Ray H., ma-w.....	Wales
Reese, Sarah, ho-3.....	Benson
Reese, Wm. G., a-F.....	King

Reid, Edward P., g-So.....	Logan
Reid, Hazel H., ho-3.....	Salt Lake
Reid, Lee E., c-p.....	Preston, Idaho
Reid, May, ss.....	Logan
Ryberg, Edith, ss.....	Logan
Rich, Emeline G., c-Sp.....	Logan
Rich, Geo. Q., c-Sp.....	Logan
Rich, Mary, ho-2.....	Vernal
Richards, Alta, ho-Sp.....	Logan
Richards, Ann, ho-J.....	Salt Lake
Richards, Bert L., a-G.....	Logan
Richards, Wm. B. L., ss.....	Logan
Richards, Carrie, ho-J.....	Logan
Richards, Ella C., g-Sp.....	Logan
Richardson, Ivie, g-S.....	Logan
Richardson, Jacob Z., g-So.....	Logan
Richardson, Lovina, ho-Sp.....	Smithfield
Ricks, Willard R., a-3.....	Benson
Rideout, Evelyn, ss.....	Draper
Rider, Rowland W., ae-So.....	Kanab
Rigby, Elmer C., a-So.....	Newton
Rinderknecht, Annie, ss.....	Providence
Riter, Levi R., a-2.....	Logan
Riter, Samuel W., c-3.....	Logan
Roberts, Artie A., ma-2.....	Kanosh
Robinson, D. E., g-G.....	Logan
Robinson, Jane A., ss.....	Salt Lake
Robinson, Jesse S., a-J.....	Paragonah
Rollins, Grover C., ma-w.....	Huntsville
Romney, Heber J., a-So.....	Salt Lake
Ronnow, Charles L., ae-So.....	Las Vegas, Nev.
Rosengreen, Enid J., ho-2.....	Logan
Rosengreen, Ruth, ho-3.....	Logan
Roskelley, James, a-3.....	Smithfield
Rowe, Ross T., a-J.....	Spanish Fork
Rouse, John Elmer, a-So.....	Springville
Sabey, Phyllis, c-2.....	Vernal
Salisbury, Joseph G., a-So.....	Logan
Sandberg, Emily, ss.....	Washington
Sargent, David LeRoy, a-S.....	Hoytsville
Shackelford, Wm. J., a-So.....	Salt Lake
Sharp, Adeline B., ss.....	Logan
Sharp, John A., a-S.....	Vernon
Shaw, Mary, ho-S.....	Logan
Shaw, Oril, ss.....	Ogden
Shaw, Samuel A., a-w.....	Ogden
Slack, Leonard, ss.....	Toquerville
Smalley, Orton, g-O.....	Logan
Smart, Georgia U., ho-2.....	Logan
Spande, Mabel, ho-F.....	Logan
Spande, Sybil, ho-2.....	Logan
Stander, George H., ma-w.....	Blackfoot, Ida.

Standley, Newel S., ma-p.....	Logan
Starley, William J., a-So.....	Fillmore
Strate, Fred C., ss.....	Spring City
Straw, LaPrele, ho-Sp.....	Springville
Swain, Roy, a-w.....	Monroe
Sells, Albert E., a-J.....	Nephi
Sessions, Charles E., ae-F.....	Syracuse
Sevey, Blaine, a-3.....	Panguitch
Schweitzer, Howard B., a-G.....	Bingham
Sheets, Merlen, ho-Sp.....	Salt Lake
Shelley, Percy N., a-S.....	Logan
Shepherd, N. T., c-Sp.....	Salt Lake
Sneddon, Bessie R., c-p.....	Logan
Stephens, Edwin W., a-S.....	Salt Lake
Stephenson, William A., g-3.....	Holden
Stewart, Archibald J., a-3.....	Logan
Stewart, Ella, ho-J.....	Ogden
Stewart, Eugene, a-J.....	Logan
Stewart, George, a-G.....	Tooele
Stewart, James H., ss.....	Wellsville
Stewart, Thelma, ho-2.....	Logan
Stewart, Walter, c-3.....	Logan
Swenson, Dan A., ma-J.....	Logan
Simmons, Martha, g-G.....	Smithfield
Sims, Ida, ss.....	Salt Lake
Sinclair, Earl E., a-w.....	St. Anthony, Idaho
Smith, Albert T., ae-2.....	Wanship
Smith, Clifford, c-4.....	Smithfield
Smith, David W., a-J.....	Salt Lake
Smith, Douglas, ae-w.....	Heber City
Smith, Edwin S., a-J.....	Logan
Smith, Ethel S., g-O.....	Salt Lake
Smith, Fera L., a-w.....	Draper
Smith, Gladys W., c-O.....	Logan
Smith, Golden G., a-w.....	Logan
Smith, Heber L., a-So.....	Logan
Smith, Irene, ho-2.....	Logan
Smith, Jacob I., ma-w.....	Logan
Smith, James C., g-F.....	Centerville
Smith, Joseph E., a-w.....	Lehi
Smith, Leslie A., g-G.....	Logan
Smith, Leona, ho-3.....	Logan
Smith, Leora, ho-So.....	Preston, Ida.
Smith, Marian L., ho-F.....	Logan
Smith, Olena, ho-2.....	Logan
Smith, Ralph A., ae-2.....	Logan
Smith, Ray, a-S.....	Logan
Smith, Ruby, ho-So.....	Salt Lake
Smith, Willis, a-So.....	Ogden
Smith, Willis Alvin, c-Sp.....	Logan
Sohn, LeRoy, a-w.....	Providence
Sorensen, Charles J., a-S.....	Hyrum
Sorensen, Emma B., g-2.....	Mendon

Sorensen, Lettie C., ss.....	Hyrum
Scholes, Caroline, g-O.....	Logan
Schow, Randal, a-w.....	Lehi
Showell, T. W., ss.....	Logan
Sjöberg, Lawrence E., ma-w.....	Millville
Sjostrom, Joseph E., ac-F.....	Logan
Snow, Emma, ss.....	Teasdale
Snow, Joseph H., a-S.....	Kingston
Stone, Merlin J., a-S.....	Ogden
Stott-Orval, a-So.....	Meadow
Shumway, Richard, ss.....	Clarkston
Shurtliff, Esther, ss.....	Ogden
Squires, Ada, ss.....	Ogden
Stuart, Sadie, ss.....	Wellsville
Stucki, Herman, a-G.....	Santa Clara
Taggart, Harriet J., ho-So.....	Ogden
Tanner, Byron S., a-So.....	Logan
Tanner, LeRoy, a-J.....	Tooele
Tanner, Wellsby, g-p.....	Salt Lake
Tarbet, Florence, ss.....	Logan
Tarbet, Zella, ho-2.....	Logan
Taylor, Anna K., ho-F.....	Provo
Taylor, Asael J., a-S.....	Willard
Thackeray, W. M., a-So.....	Croydon
Thain, Aldyth, g-F.....	Logan
Thain, George W., ae-2.....	Logan
Thain, Wilber E., c-S.....	Logan
Thatcher, Frank D., a-J.....	Logan
Thatcher, Mrs. G. W., g.....	Logan
Thatcher, Helen, ho-2.....	Logan
Thatcher, Hannah, ho-2.....	Thatcher, Idaho
Thatcher, Nettie, ho-So.....	Logan
Thatcher, Nathan D., a-So.....	Logan
Thatcher, Patience, ho-2.....	Logan
Tidwell, Leonard, ae-p.....	Moroni
Titus, Lawrence E., a-J.....	Salt Lake
Toombs, Jno. C., c-3.....	Logan
Toombs, Melverne H., ma-w.....	Logan
Tovey, Jane L., g-2.....	Briston, Mont.
Tovey, Wm. D., a-2.....	Briston, Mont.
Thomas, Alvin J., c-2.....	Samaria, Idaho
Thomas, Elvin D., a-3.....	Plain City
Thomas, Fred W., c-2.....	Logan
Thomas, Henry J., ma-w.....	Wales
Thomas, Inez, ss.....	Ogden
Thomas, Preston, a-S.....	Plain City
Thomas, Terese, ss.....	Preston, Idaho
Thomson, Anthon W., ss.....	Sanpete
Thorpe, Verne, c-J.....	Cardston, Canada
Trotman, Harold A. C., a-2.....	Logan
Tucker, Percy, a-Sp.....	Fairview
Tuft, Leland, a-F.....	Monroe
Tunks, Samuel V., ss.....	Ovid, Idaho

Turner, Geo. C., c-Sp.....	Logan
Turner, Wm. J., c-p.....	Logan
Tuttle, Leonard W., a-2.....	Manti
Tuttle, Lloyd, a-J.....	Manti
Thurman, David J., ss.....	Ogden
Vance, Victor, a-w.....	Dickey, Idaho
Van Lenven, Perry, ma-So.....	Springville
Voorhees, Glenn L., g-So.....	Manti
Wadley, Jos. D., c-F.....	Pleasant Grove
Wahlen, Julius O., ae-3.....	Logan
Walker, Florence, ss.....	American Fork
Walker, Jno. B., a-J.....	Sandy
Wallace, Jonathan A., g-F.....	Ogden
Walton, Olive, ss.....	Coalville
Wangsgard, Ernest, ss.....	Huntsville
Ward, Raymond O., a-F.....	Logan
Warnick, Adolphus P., a-S.....	Pleasant Grove
Warnick, Effie, ho-S.....	Pleasant Grove
Warr, Clara E., ss.....	Kamas
Watkins, Aurilla, g-O.....	Brigham
Watto, Vyron M., c-Sp.....	Smithfield
Whatcott, W. H., ss.....	Tremonton
Webb, Effie, ho-J.....	St. George
Webb, Heber J., ss.....	Logan
Webster, Mozelle, ho-3.....	Logan
Wells, Ida M., ss.....	Castle Dale
West, Chas. H., a-S.....	Ogden
West, Clement W., a-2.....	Ogden
West, Thelma, ho-2.....	Logan
Weston, Estella, ho-Sp.....	Logan
Weston, Rose L., ss.....	Hyrum
Widmer, Samuel E., ma-2.....	Logan
Willard, Edna G., g-S.....	Strong, Maine
Williams, Kenith, ss.....	Ephraim
Willie Leone, a-So.....	Mendon
Willie, Maud, ss.....	Mendon
Williams, Howell M., g-3.....	Malad, Idaho
Williams, Hugh, a-J.....	Salt Lake
Williams, Robt., ma-3.....	Clyde, Idaho
Williams, Roland, a-w.....	Monroe
Williamson, Lowell, a-Sp.....	Salt Lake
Willmore, Benjamin F., c-2.....	Logan
Wilson, Alma L., a-So.....	Hooper
Wilson, Leroy A., a-Sp.....	Sandy
Wilson, Vanes, ma-2.....	River Heights
Wilson, Wilford, ma-w.....	Payson
Winget, Glen, a-F.....	Monroe
Winn, Robt. E., a-3.....	Nephi
Winters, Nina, ss.....	Garland
Wintle, Daisy, ss.....	Ogden
Wintle, Ino. W., ss.....	Ogden
White, Etelka, ho-So.....	Beaver
White, Edgar, ss.....	Beaver

White, Leroy, a-w.....	Farmington
White, Lola B., ss.....	Springville
Whitear, Frank L., a-2.....	Peterson
Whitworth, Jesse J., a-p.....	Richmond
Wright, Coulsen C., ae-w.....	Blumington, Idaho
Wright, Jno. W., a-So.....	Hinckley
Wrigley, Robt., ss.....	Cedar City
Wood Alvira, ho-Sp.....	Huntsville
Wood, Frederick C., ss.....	Park City
Wood, Karl, ss.....	Providence
Wood, Selma A., ho-2.....	Huntsville
Woodbury, Max W., ss.....	Ogden
Woodland, Mary, ho-Sp.....	Brigham
Woodruff, Avery C., ss.....	Farmington
Woodside, Clyde, c-2.....	Logan
Woodside, Jean, ho-S.....	Logan
Woodside, Wm. A., ac-F.....	Logan
Woodward, Frank E., c-2.....	Cove
Woolley, Ethel, ho-3.....	Grantsville
Woolley, Jno. F., a-F.....	Grantsville
Woolley, Moroni, g-F.....	Grantsville
Woolley, Ralph E., ae-G.....	Grantsville
Woolley, W. G., ss.....	Grantsville
Woolf, Eva, c-J.....	Grantsville
Woolf, Grace, ss.....	Salt Lake
Woolf, Ruby, ho-Sp.....	Logan
Worley, Margaret, g-Sp.....	Logan
Wurston, Herman, ma-w.....	Logan
Young, Nelson A., a-2.....	Salt Lake
Young, Ernest T., a-S.....	Brigham
Young, Mary, ss.....	Brigham

## SUMMARY OF ATTENDANCE

	Agr.	Agr. Engnr.	Comm.	Gen'l Science	Home Econom.	Mech. Arts	Special (Music)	TOTAL	GRAND TOTAL	
<b>COLLEGE:</b>										
Graduates .....	8	1	4	10	.....	.....	.....	23	.....	
Seniors .....	50	4	11	11	11	2	.....	89	.....	
Juniors .....	34	5	11	5	18	2	.....	75	.....	
Sophomores .....	59	16	12	12	26	5	.....	130	.....	
Freshmen .....	24	4	13	13	21	3	.....	80	.....	
Specials .....	9	.....	10	10	39	1	1	70	.....	
	184	30	61	61	115	13	1	.....	467	
<b>HIGH SCHOOL:</b>										
Third Year.....	41	2	15	9	19	2	.....	88	.....	
Second Year.....	30	7	27	12	30	13	.....	119	.....	
Practical Course.	11	2	14	1	2	4	.....	34	.....	
Optionals .....	3	.....	1	16	.....	.....	.....	20	.....	
Winter Course..	44	.....	7	5	.....	22	.....	78	.....	
	129	11	64	43	51	41	.....	.....	339	
Summer School 1913.....									268	
Correspondence Department .....									159	
									1,233	
Less names repeated.....									95	
									1,138	
<b>ROUND-UP AND HOUSEKEEPERS' CONFERENCE</b>										
<b>Round-up:</b>										
Logan .....									544	
Richfield .....									417	
Cedar City .....									344	1,305
<b>Housekeepers' Conference:</b>										
Logan .....									320	
Richfield .....									207	
Cedar City .....									256	783
									1,283	
Net total .....									2,088	

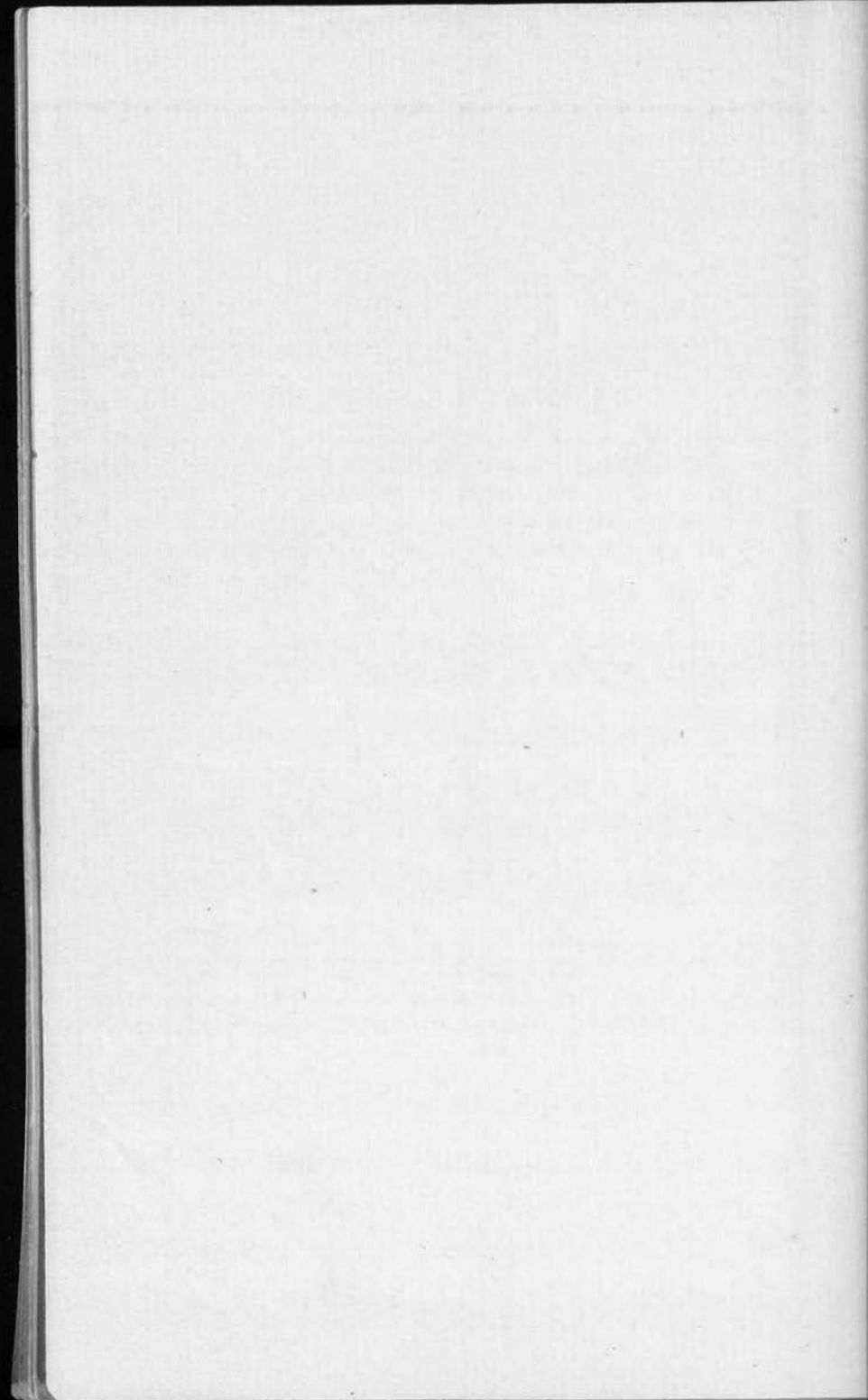


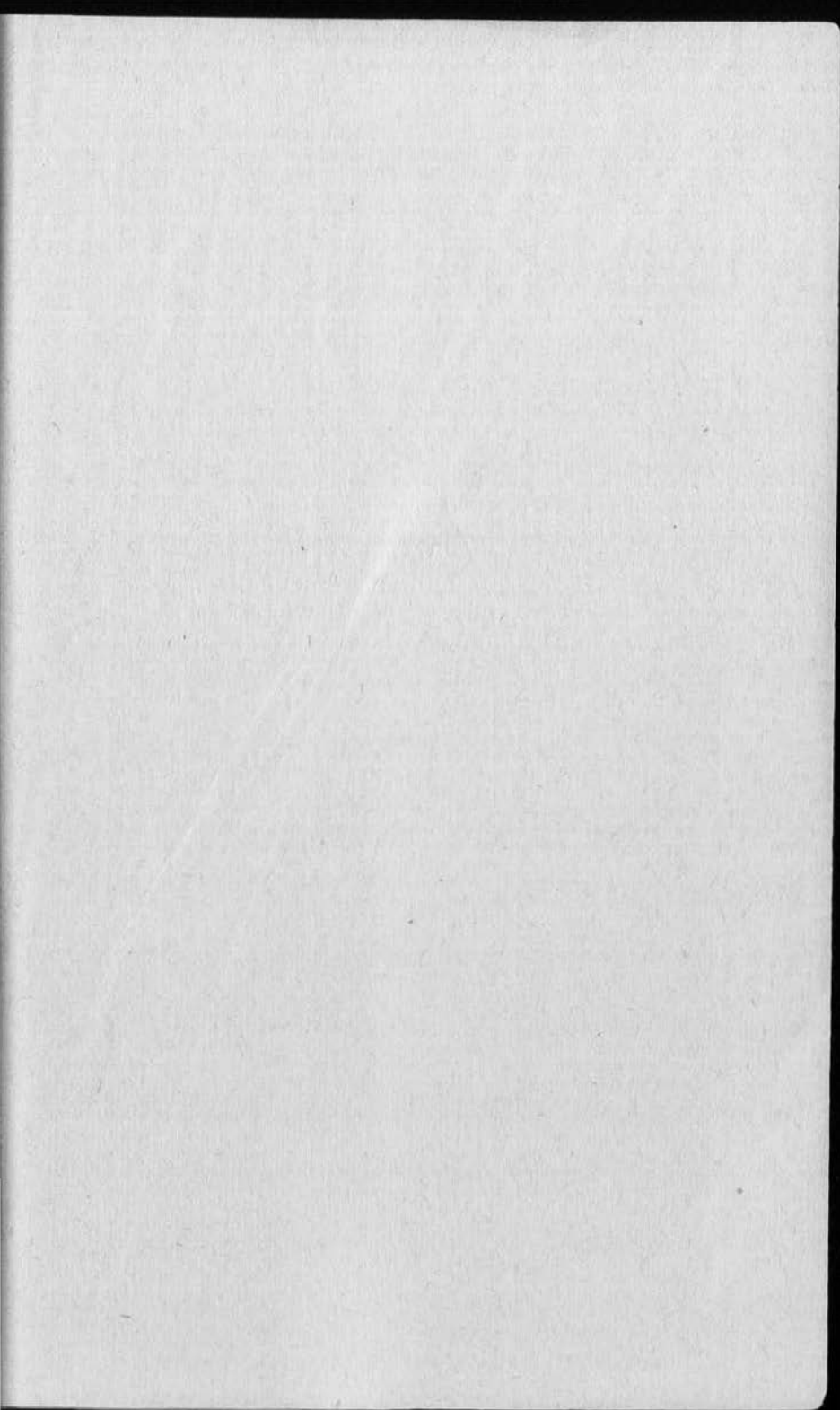
## INDEX

	PAGE
Accounting and Business Practice.....	62
Admission .....	23
Agricultural Engineering .....	65
Agricultural Experiment Station.....	39
Agricultural Surveying .....	67
Agricultural Technology .....	70
Agronomy .....	71
Alumni Association .....	140
Alumni Members .....	141
Animal Husbandry .....	75
Applied Art.....	79
Art .....	78
Bacteriology .....	81
Battalion Roster, 1913-1914.....	154
Board of Trustees.....	6, 22
Botany .....	83
Branch of the Agricultural College.....	18
Buildings and Equipment.....	31
Calendar, 1914-1915 .....	2
Calendar, College .....	5
Chemistry .....	85
College Proper .....	44
College Faculty .....	7, 22
Commencement, 1914 .....	150
Contents .....	3
Correspondence-Study Department .....	43
Dairying .....	87
Debating .....	28, 153
Departments of Instruction.....	26, 61
Domestic Art .....	88
Economics .....	91
Elocution .....	95
English .....	93
Entomology .....	95
Equipment .....	35
Expenses of Students.....	29
Experiment Station Staff.....	14, 23

	PAGE
Extension Division Staff.....	16
Extension Division .....	41
Farm Mechanics .....	96
Finance and Banking .....	97
Foods and Dietetics.....	99
Forging and General Blacksmithing.....	109
French .....	121
Full Year Practical Courses.....	56
Geology .....	100
German .....	122
Government of the College.....	21
Graduates, 1914 .....	150
Graduation .....	25
History .....	102
History of the College.....	20
Holidays, see College Calendar.....	5
Home Construction and Sanitation.....	103
Honors, 1913-1914 .....	153
Horticulture .....	105
Irrigation and Drainage.....	65
Laboratories, see Equipment.....	35
Latin .....	123
Library Work .....	106
Library .....	38
List of Students, 1913-1914.....	156
Machine Work .....	111
Mathematics .....	107
Mechanical Drawing .....	114
Mechanic Arts .....	109
Military Science and Tactics.....	119
Mineralogy .....	101
Modern Languages .....	121
Music .....	123
Normal Training .....	52
Organization of the College.....	25
Organization of College Proper.....	44
Officers of Instruction and Administration.....	7
Oratory .....	28, 153
Physical Education .....	126
Physical Education for Men.....	127
Physical Education for Women.....	127
Physics .....	128

	PAGE
Physiography .....	100
Physiology and Physiological Chemistry.....	130
Policy of the College.....	19
Political Science .....	131
Poultry Husbandry .....	77
Practical Courses .....	55
Recitation Table .....	61
Registration .....	24
Relation between U. of U. and U. A. C.....	58
Roads .....	132
Rural Architecture .....	68
Rural Sanitation .....	69
Schedule of Hours.....	138
Schedule of Required Work for Graduation.....	52
Scholarship Honors .....	153
School of Agriculture.....	45, 46
School of Agricultural Engineering .....	45, 47
School of Commerce .....	45, 49
School of General Science .....	45, 51
School of Home Economics .....	45, 47
School of Mechanic Arts .....	45, 49
Sociology .....	133
Spanish .....	122
Special Students .....	58
Standing Committees of the Board.....	6
Standing Committees of the Faculty.....	17
Stenography .....	134
Student Body Officers.....	153
Student Life Staff.....	154
Student Body Organization and Student Clubs.....	27
Students, List of.....	156
Student Expenses .....	29
Student Publications .....	28
Summer School .....	51
Summary of Attendance.....	176
Trustees, Board of.....	6, 22
Typewriting .....	134
University of Utah-Agricultural College Agreement.....	60
Veterinary Science .....	135
Winter Course .....	57
Wood Work .....	117
Zoology .....	136





ILLUSTRATED  
DESCRIPTIVE CIRCULARS  
DEALING WITH THE WORK OF THE  
VARIOUS SCHOOLS—AGRICULTURE, HOME ECONOM-  
ICS, COMMERCE, AND MECHANIC ARTS—AND  
WITH STUDENT ACTIVITIES, ARE PUB-  
LISHED—WRITE FOR COPIES—THE  
COLLEGE BULLETINS ARE ISSUED  
QUARTERLY BY THE AGRI-  
CULTURAL COLLEGE  
OF UTAH