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# Agricultural College of Utah

BULLETIN

## GENERAL CATALOG

1921-1922

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*Thirty-second Year*

With List of Students for 1920-1921

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LOGAN, UTAH

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Published by the College  
July, 1921



# CALENDAR FOR 1921

JANUARY

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APRIL

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JULY

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OCTOBER

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FEBRUARY

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MAY

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AUGUST

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NOVEMBER

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MARCH

SMTWTFSS

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JUNE

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SEPTEMBER

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DECEMBER

SMTWTFSS

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# CALENDAR FOR 1922

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
1	2	3	4	5	6	7	..	..	..	..	..	1	2	..	..	..	..	1	2	3	4	5	6	7	8	9	
8	9	10	11	12	13	14	2	3	4	5	6	7	8	2	3	4	5	6	7	8	8	9	10	11	12	13	14
15	16	17	18	19	20	21	9	10	11	12	13	14	15	9	10	11	12	13	14	15	15	16	17	18	19	20	21
22	23	24	25	26	27	28	16	17	18	19	20	21	22	16	17	18	19	20	21	22	22	23	24	25	26	27	28
29	30	31	..	..	..	..	23	24	25	26	27	28	29	23	24	25	26	27	28	29	29	30	31	..	..	..	..
..	..	..	..	..	..	..	30	..	..	..	..	..	..	30	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
..	..	1	2	3	4	5	..	1	2	3	4	5	6	..	1	2	3	4	5	6	..	..	1	2	3	4	5
6	7	8	9	10	11	12	7	8	9	10	11	12	13	6	7	8	9	10	11	12	5	6	7	8	9	10	11
12	13	14	15	16	17	18	14	15	16	17	18	19	20	13	14	15	16	17	18	19	12	13	14	15	16	17	18
19	20	21	22	23	24	25	21	22	23	24	25	26	27	20	21	22	23	24	25	26	19	20	21	22	23	24	25
26	27	28	..	..	..	..	28	29	30	31	..	..	..	27	28	29	30	31	..	..	26	27	28	29	30	..	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

  

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	..	..	1	2	3	4	5	..	..	..	1	2	3	4	..	..	..	1	2	3	4
6	7	8	9	10	11	12	4	5	6	7	8	9	10	3	4	5	6	7	8	9	2	3	4	5	6	7	8
12	13	14	15	16	17	18	11	12	13	14	15	16	17	10	11	12	13	14	15	16	9	10	11	12	13	14	15
19	20	21	22	23	24	25	18	19	20	21	22	23	24	17	18	19	20	21	22	23	16	17	18	19	20	21	22
26	27	28	29	30	31	..	25	26	27	28	29	30	..	24	25	26	27	28	29	30	23	24	25	26	27	28	29
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

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# College Calendar for 1921-22

(Twelve weeks constitute a quarter; six weeks constitute a term.)

## FALL QUARTER

September 12, Monday

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

September 13, Tuesday

Classes organized.

October 28, Friday

Periwig Club Play.

November 4, Friday

Agricultural Club Ball.

November 23, Wednesday

Fall quarter ends.

November 24-27 (inclusive)

Thanksgiving Recess.

## WINTER QUARTER

November 28, Monday

Winter quarter begins.

December 9, Friday

Debate Try-outs.

December 22-Jan. 4 (inclusive)

Christmas Recess.

January 9-14

Extension Division Convention at Logan.

January 16-21

Farmers' Convention and Housekeepers' Conference at Logan.

January 16-28

Exhibition of Arts and Crafts by Utah artists.

January 16-28

Scoutmasters' Convention.

January 23-28

Farmers' Convention and Housekeepers' Conference at Cedar City.

January 25, Wednesday

Oratorical Contest, Sons of American Revolution Medal.

February 3, Friday

Commercial Club Ball.

February 9, 10

College Opera.

February 15, Wednesday

Oratorical Contest—Hendricks Medal.

February 21, Tuesday

Military Ball.

February 22, Wednesday

Washington's Birthday.

February 23, 24

College Play.

March 4, Saturday

Winter quarter ends.

## SPRING QUARTER

March 6, Monday

Spring quarter begins.

March 6-11

Sixth Annual Glee Club tour.

March 15, Wednesday

Oratorical Contest—Casto Medal.

March 17, Friday

Junior Promenade.

March 24, Friday

Freshman Play.

April 15, Saturday

Arbor Day.

April 21, Friday

"A" Day

April 24-29

Annual Junior Extension week.

April 25, Tuesday

College Science Contest—William Peterson Medal.

May 1, Monday

Senior Chapel.

May 8, Monday

Conferring of Scholarships and other honors.

May 13, Saturday

May festival.

May 26, Friday

Spring quarter ends. Annual Alumni business meeting and social.

May 27, Saturday

Commencement and Alumni Ball.

May 28, Sunday

Baccalaureate Sermon.

## SUMMER QUARTER

June 5, Monday

Summer quarter begins.

June 9, Friday

Reception to Summer School students.

June 24, Saturday

Annual excursion.

July 4, Tuesday

Independence Day.

July 14, Friday

First term ends.

July 17, Monday

Second term begins.

July 24, Monday

Pioneer Day.

August 25, Friday

Summer quarter ends.

## Board of Trustees

---

ANTHONY W. IVINS.....	Salt Lake City, Utah
JOHN DERN.....	Salt Lake City, Utah
ANGUS T. WRIGHT.....	Ogden, Utah
LOIS HAYBALL.....	Logan, Utah
FRANK B. STEPHENS.....	Salt Lake City, Utah
JOHN D. PETERS.....	Brigham City, Utah
W. S. HANSEN .....	Fielding, Utah
E. O. HOWARD.....	Salt Lake City, Utah
O. H. BUDGE.....	Logan, Utah
J. H. WATERS.....	Salt Lake City, Utah
C. P. CARDON.....	Logan, Utah
ROBERT L. JUDD.....	Salt Lake City, Utah
H. E. CROCKETT, Secretary of State, ex-officio,	Salt Lake City

### OFFICERS OF THE BOARD

ANTHONY W. IVINS.....	President
JOHN DERN.....	Vice-President
.....	Secretary and Treasurer

### COMMITTEES OF THE BOARD

- Executive Committee—A. W. Ivins, John Dern, E. O. Howard.
- Agriculture—W. S. Hansen, J. D. Peters, C. P. Cardon.
- Mechanic Arts—C. P. Cardon, A. T. Wright, O. H. Budge.
- Agricultural Engineering—O. H. Budge, F. B. Stephens, J. D. Peters.
- Home Economics—Lois Hayball, F. B. Stephens, H. E. Crockett.
- Commerce—J. H. Waters, E. O. Howard, A. T. Wright.
- Experiment Station—E. O. Howard, Lois Hayball, O. H. Budge.
- Extension Division—J. D. Peters, H. E. Crockett, O. H. Budge.
- Faculty and Course of Study—F. B. Stephens, J. D. Peters, R. L. Judd,  
E. O. Howard, O. H. Budge.
- Live Stock—W. S. Hansen, C. P. Cardon, J. H. Waters.
- Buildings and Grounds—A. T. Wright, John Dern, Lois Hayball,  
O. H. Budge, C. P. Cardon.
- Power, Heat and Light—John Dern, A. T. Wright, H. E. Crockett,  
J. H. Waters, R. L. Judd.
- Branch of the Agricultural College—R. L. Judd, W. S. Hansen, Lois  
Hayball.
- Legislation and Finance—F. B. Stephens, R. L. Judd, O. H. Budge,  
H. E. Crockett, J. H. Waters.



# Officers of Administration and Instruction†

## The College Faculty

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

ELMER GEORGE PETERSON, A. M., Ph. D.  
President

GEORGE WASHINGTON THATCHER, B. S.  
Professor of Music

WILLIAM PETERSON, B. S. \*  
Director, Experiment Station  
Professor of Geology

HYRUM JOHN FREDERICK, D. V. M.  
Professor of Veterinary Science

FRANK RUSSELL ARNOLD, A. M.  
Professor of Modern Languages

JAMES CHRISTIAN HOGENSON, M. S. A.  
In Charge, Farmers' Institutes and Agricultural  
Correspondence Study, Extension Division  
Extension Agronomist

JOHN THOMAS CAINE, B. S.  
Auditor

FRANKLIN LORENZO WEST, Ph. D.  
Director, Interior Instruction  
Professor of Physics

FRANKLIN STEWART HARRIS, Ph. D. \*\*  
Director, Experiment Station  
Professor of Agronomy.

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

CALVIN FLETCHER, B. Pd.  
Professor of Applied Arts

---

†The College Council consists of the President and all members of the faculty with the rank of Professor, Associate Professor or Assistant Professor.

\*Appointment as Director Experiment Station Effective September 1, 1921.

\*\*Resigned. Effective August 30, 1921.

## AGRICULTURAL COLLEGE OF UTAH

RAY BENEDICT WEST, C. E.  
 Director, Schools of Agricultural Engineering and Mechanic Arts  
 Professor of Agricultural Engineering

ROBERT JAMES EVANS, Ph. D.  
 Director, Extension Division

GEORGE RICHARD HILL, Jr., Ph. D.  
 Director, School of Agriculture  
 Professor of Botany and Plant Pathology

JAMES HENRY LINFORD, D. D.  
 Director, Summer Quarter  
 Superintendent, Correspondence-Study Department

ARTHUR HERBERT SAXER, M. S., Ph. D.  
 Director, School of General Science  
 Professor of Mathematics

NIELS ALVIN PEDERSEN, A. M.  
 Professor of English

WILLIAM ERNEST CARROLL, M. S., Ph. D.  
 Professor of Animal Husbandry

PARLEY ERASTUS PETERSON, A. B., C. P. A.  
 Professor of Accounting  
 Registrar

FRANKLIN DAVID DAINES, A. M. ....  
 Professor of History

JONATHAN SOCKWELL POWELL  
 Professor of Fine Art

JOHN L. COBURN, B. S.  
 Secretary, Treasurer and Purchasing Agent

MELVIN CLARENCE MERRILL, S. M., A. M., Ph. D.  
 Professor of Horticulture

JESSIE WHITACRE, B. S.  
 Director, School of Home Economics  
 Professor of Foods and Dietetics

JOHANNA MOEN, B. S.  
 Professor of Textiles and Clothing

RUSSELL PETER HARTLE, Major, U. S. A.  
 Professor of Military Science and Tactics.

EDGAR BERNARD BROSSARD, M. S., Ph. D.  
 Professor of Farm Management and Agricultural  
 Economics

REUBEN LORENZO HILL, Ph. D.  
Professor of Chemistry

GEORGE BALLIF CAINE, A. M.  
Professor of Dairy Husbandry

ORSON WINSO ISRAELSEN, M. S.  
Professor of Irrigation and Drainage

GEORGE STEWART, M. S.  
Professor of Agronomy.

RENA BAKER MAYCOCK  
State Leader, Home Demonstration Work, Extension

WILLIAM LAWRENCE WANLASS, Ph. D.  
Director, School of Commerce and Business Administration  
Professor of Business Administration

MILTON HYRUM HARRIS, Ph. D.  
Professor of Economics

DAVID EARLE ROBINSON, B. S.  
Professor of Marketing  
In Charge, Information—Service

IRA M. HAWLEY, Ph. D.  
Professor of Zoology and Entomology

AUGUST J. HANSEN, B. S.  
Associate Professor of Carpentry and Wood Work

AARON NEWHEY, B. S.  
Associate Professor of Machine Work

CHARLES ROBERT JOHNSON  
Associate Professor of Music

WILLARD GARDNER, Ph. D.  
Associate Professor of Physics

BERT LORIN RICHARDS, Ph. D.  
Associate Professor of Botany and Plant Pathology

WILLIAM BOWKER PRESTON, M. D.  
Medical Supervisor of Students  
Acting Assistant Surgeon—U. S. Public Health Service

LUTHER MARTIN WINSOR, B. S.  
Associate Professor of Irrigation and Drainage

ALBERT H. POWELL  
Associate Professor of Farm Machinery



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

CHARLES TARY HIRST, M. S.  
Assistant Professor of Chemistry

CHARLOTTE KYLE, A. M.  
Assistant Professor of English

JOSEPH R. JENSON, A. B.  
Assistant Professor of Physical Education

WILLIAM WHITE OWENS, B. S.  
County Agent Leader, Extension

RAYMOND J. BECRAFT, B. S.  
Assistant Professor of Range Management

E. LOWELL ROMNEY, A. B.  
Assistant Professor of Physical Education  
In charge of Competitive Athletics

AMY LYMAN MERRILL, B. S.  
Assistant Professor of Household Administration. Superintendent of  
Practice Home.

TRACY H. ABELL, M. S.\*  
Assistant Professor of Morticulture

EZRA G. CARTER, M. S.  
Assistant Professor of Bacteriology and Physiology

WILBUR E. THAIN, B. S., C. P. A.  
Assistant Professor of Accounting.

ALEXANDER C. SULLIVAN, Major, U. S. A. (Coast Artillery)  
Assistant Professor of Military Science and Tactics.

WALLACE J. VICKERS, B. S.  
Assistant Professor of English.

LEON D. HARDY, B. S.  
Assistant Professor of Economics, Correspondence-Study

CHARLES CHALLICE, Jr., Captain, U. S. A. (Quartermaster  
Corps.)  
Assistant Professor of Military Science & Tactics.

HERBERT J. PACK, B. S.  
Assistant Professor of Zoology and Entomology.

---

\*On leave of absence.

SHERWIN G. MAESER, Ph. D.  
Assistant Professor of Chemistry.

DON WARREN PITTMAN, M. S.  
Assistant Professor of Agronomy.

SAMUEL ROY EGBERT  
Assistant Professor of Forging.

CHARLOTTE DANCEY, Graduate Nurse  
Assistant Professor of Household Administration  
Specialist in Home Health and Nursing.

GUSTAV WILSTER, M. S.  
Assistant Professor of Dairy Husbandry.

IVA MAUD DUNN, A. B.  
Assistant Professor of Public Speaking.

HENRY OBERHANSLEY, B. S.  
Assistant Professor of Education.

ALICE KEWLEY, B. S.  
Assistant Professor of Education.

---

Assistant Professor of Engineering.

WILFORD J. MERRILL  
Secretary to the President

JOSEPH DEVONALD HOWELL, F. S. S. A.  
Instructor in Stenography.

LAVINA RICHARDSON, B. S.  
Instructor in Textiles and Clothing

AARON F. BRACKEN, B. S.  
Instructor in Agronomy.

HATTIE SMITH  
Assistant Librarian.

N. E. EDLEFSEN, B. S.  
Instructor in Physics.

DAN ARTHUR SWENSON, B. S.  
Instructor in Carpentry and Wood Work.

PETER NELSON, B. S.  
Instructor in Botany.

## AGRICULTURAL COLLEGE OF UTAH

YEPPA LUND, B. S.  
Instructor in Bacteriology.

ASA BULLEN, B. S., LL. B.  
Special Lecturer in Commercial Law.

OLGA CARLSON, A. B.  
Instructor in Physical Education.

MAURINE PETERSON, B. S.  
Instructor in Applied Art.

WINNIFRED SMITH, B. S.  
Instructor in Foods and Dietetics.

EMIL HANSEN  
Instructor in Horticulture  
Superintendent of Grounds and Greenhouses.

ELMER C. CLAWSON, B. S. M. B. A.  
Instructor in Business Administration.

DEAN S. CARDER, B. S.  
Instructor in Geology and Mathematics.

ARTHUR FIFE, B. S.  
Instructor in Irrigation and Drainage.

THELMA FOGLEBERG  
Instructor in Stenography and Business Practice

RAE L. ORMSBY  
Instructor in Textiles and Clothing.

ANGUS MARION MAUGHAN, B. S.  
Instructor in Chemistry

SIDNEY STOCK  
Instructor in Auto Mechanics.

C. H. STEVENS  
Instructor in Auto Mechanics.

HUGH HURST, D. V. M.  
Instructor in Animal Husbandry and Veterinary Science.

EARL THOMPSON,  
Instructor in English and Mathematics

FRED SPENCER  
Instructor in Auto Mechanics

E. J. YONK  
Instructor in Auto Mechanics.

DAVID HUGHES  
Assistant in Carpentry and Wood Work.

ABBY GROESBECK  
Assistant in Registrar's Office.

JAMES McGRATH, Sergeant U. S. A. (Retired)  
Assistant in Military Science and Tactics.

CHARLES BATT  
Superintendent of Water, Heat, Sewerage and Lighting  
Plant.

RASMUS OLUF LARSEN  
Superintendent of Buildings

## Experiment Station Staff

FRANKLIN STEWART HARRIS, Ph. D.\*  
Director; Agronomist

WILLIAM PETERSON, B. S.\*\*  
Director; Geologist

HYRUM JOHN FREDERICK, D. V. M.  
Professor; Veterinarian

FRANKLIN LORENZO WEST, Ph. D.  
Professor; Physicist.

JOSEPH EAMES GREAVES, Ph. D.  
Professor; Chemist and Bacteriologist.

WILLIAM ERNEST CARROLL, Ph. D.  
Professor; Animal Husbandman.

BYRON ALDER, B. S.  
Assistant Professor; Poultryman.

GEORGE RICHARD HILL, Jr., Ph. D.  
Professor; Botanist.

ORSON WINSO ISRAELSEN, M. S.  
Professor; Irrigation and Drainage.

MELVIN CLARENCE MERRILL, Ph. D.  
Professor; Horticulturist

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\*Resigned. Resignation effective August 30, 1921.

\*\*Apoinment effective September 1, 1921.

## AGRICULTURAL COLLEGE OF UTAH

LUTHER MARTIN WINSOR, B. S.  
Associate Professor; Irrigation.

GEORGE BALLIF CAINE, M.S.  
Professor; Dairying.

DAVID STOUT JENNINGS, Ph. D.  
Associate Professor; Soil Surveys

RAYMOND J. BECRAFT, B. S.  
Assistant Professor; Range Management.

GEORGE STEWART, M. S.  
Professor; Field Crops.

REUBEN L. HILL, Ph. D.  
Professor; Human Nutrition.

EDGAR BERNARD BROSSARD, M. S., Ph. D.  
Professor; Farm Management.

WILLIAM L. WANLASS, Ph. D.  
Professor; Marketing.

IRA M. HAWLEY, Ph. D.  
Professor; Entomologist

CHARLES TARY HIRST, M. S.  
Assistant Professor; Associate Chemist.

WILLARD GARDNER, Ph. D.  
Associate Professor; Associate Physicist

BERT LORIN RICHARDS, Ph. D.  
Associate Professor; Associate Botanist.

BLANCHE COOPER, B. S.  
Associate Professor; Associate Human Nutrition.

EZRA G. CARTER, M. S.  
Assistant Professor; Associate Bacteriologist.

MOYER DELWYN THOMAS, A. B., B. Sc.  
Associate Professor; Associate Argonomist

DON WARREN PITTMAN, M. S.  
Assistant Professor; Associate Agronomist.

AARON F. BRACKEN, B. S.  
Instructor; Supt. Nephi Substation.

YEPPA LUND, M. S.  
Instructor; Assistant Chemist.

LOUIS F. NUFFER, B. S.  
Instructor; Assistant Botanist.

ARTHUR FIFE, B. S.  
Instructor; Assistant in Irrigation.

N. E. EDLEFSEN, B. S.  
Instructor; Assistant Physicist

GEORGE E. KING, B. S.  
Instructor; Assistant Entomologist.

ALMA L. WILSON, B. S.  
Instructor; Supt. Davis County Farm.

PETER NELSON, B. S.  
Instructor; Farm Superintendent.

J. R. BATEMAN, B. S.  
Instructor; Supt. Panguitch Farm.

HERBERT J. PACK, B. S.  
Assistant Professor; Assistant Entomologist.

JOHN L. COBURN, B. S.  
Secretary and Purchasing Agent.

KIEFER B. SAULS, B. S.\*  
Secretary to the Director of the Experiment Station.

BLANCHE CONDIT PITTMAN, B. A.  
Clerk and Librarian.

## Extension Division Staff

ROBERT JAMES EVANS, Ph. D.  
Director.

JAMES CHRISTIAN HOGENSON, M. S. A.  
In Charge, Farmers' Institutes and Agricultural  
Correspondence Study, Agronomist.

RENA BAKER MAYCOCK.  
State Leader, Home Demonstration Work.

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\*Resigned. Effective August 30, 1921.



## AGRICULTURAL COLLEGE OF UTAH

WILLIAM WHITE OWENS, B. S.  
County Agent Leader.

BEN R. ELDREDGE, B. S.  
Assistant Professor of Dairying.

JOSEPH PRESTON WELCH, B. S.  
Assistant Professor; County Agent, Utah County

ROBERT HASLAM STEWART, B. S.  
Assistant Professor; County Agent, Box Elder County

HANS A. CHRISTIANSEN, B. S.  
Assistant Professor; County Agent, Beaver County.

W. PRESTON THOMAS\*  
Assistant Professor; County Agent, Weber County.

JOHN HYRUM WITTWER, B. S.  
Assistant Professor; County Agent, Uinta County

ROBERT L. WRIGLEY, B. S.  
Assistant Professor; County Agent, Cache County.

ORSON P. MADSEN, B. S.  
Assistant Professor; County Agent, Carbon County.

EZRA R. PRICE, B. S.  
Assistant Professor; County Agent, Iron County.

ROSE HOMER WIDTSOE, B. S.  
Assistant Professor; Home Demonstration Agent,  
Salt Lake City.

GEORGE F. HOLMSTEAD, B. S.  
Assistant Professor; County Agent, Sevier County.

VERE L. MARTINEAU, B. S.  
Assistant Professor; County Agent, Salt Lake County

ROZINA SKIDMORE, B. S.  
Assistant Professor of Domestic Arts.

WILLIAM J. THAYNE, B. S.  
Assistant Professor; County Agent, Davis County.

ALBERT E. SMITH, B. S.  
Assistant Professor; County Agent, Millard County.

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\*On leave of absence.

ARCHIE L. CHRISTIANSEN, B. S.  
Assistant Professor; County Agent, Tooele County.

ANNA EDMUNDS PIXTON, B. S.  
Assistant Professor; Home Demonstration Agent,  
Salt Lake County.

CHARLES O. STOTT, B. S.  
Assistant Professor; County Agent, San Pete County.

STEPHEN ROY BOSWELL, B. S.  
Assistant Professor; County Agent, Summit County.

ELLEN AGREN, B. S.  
Assistant Professor; Home Demonstration Agent,  
Weber County.

CHARLOTTE E. DANCEY, Graduate Nurse  
Assistant Professor; Specialist in Home Health and  
Nursing.

CHARLES J. SORENSON, B. S.  
Assistant Professor; County Agent, Weber County

FOREST SLAUGH  
Instructor; Club Leader, Uinta County.

DE LORE NICHOLS, B. S.  
Assistant Professor; County Agent, Morgan County.

AMY J. LEIGH, B. S.  
Assistant Professor; Assistant Home Demonstration  
Leader

ARDATH L. PRICE, B. S.  
Instructor; County Agent, Iron County

EFFIE W. MADSEN, B. S.  
Instructor; Home Demonstration Agent,  
Box Elder County.

GLADYS CHRISTENSEN, B. S.  
Instructor; Assistant State Club Leader

E. R. PRICE, B. S.  
Instructor; County Agent, Wasatch County

MORGAN McKAY, B. S.  
Instructor; County Agent, Southern Utah.

IDA R. MITCHELL,  
Clerk



## Standing Committees

1921-1922

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

*Graduation*—Professor Saxer.

*Attendance and Scholarship*—Professors F. L. West, Jensen, Hawley, Sullivan, Amy Lyman Merrill.

*Student Affairs*—Professor Jenson.

*Publicity*—Professors Arnold, Robinson.

*Exhibits*—Professors Owens, Fletcher, Hansen, Powell, Israelsen.

*Entrance*—Professors Daines, Harris, Hirst.

*Debating*—Professors Wanlass, Carroll, Daines, Vickers, Miss Smith.

*Student Employment*—Mr. W. J. Merrill.

*Student Body Organization*—Professors Harris, Jenson, Pack.

*Recommendations For Employment*—Professor Henry Peterson, Mr. W. J. Merrill.

*Schedule*—Professor Saxer.

*Lyceum Course*—Mr. Coburn.

*Graduate Work*—Professors F. L. West, Saxer, M. C. Merrill.

*Campus Improvements*—Professors M. C. Merrill, Ray B. West, Fletcher, George R. Hill, Jr., Mr. Emil Hansen.

*Athletic Council*—Professors Ray B. West (Chairman), Jenson, Romney (representing the Faculty), Professors Geo. R. Hill, Jr., George B. Caine, and Mr. John H. Bankhead, (representing the Alumni) Louis Falck, John Croft and Percy Hansen (representing the Student Body).

*College Editor*—Professor Robinson.

*Awards and Honors*—Professors Wanlass, Linford, Mr. Coburn.

*Library*—Professors George R. Hill, Jr., Pedersen, Wanlass.

*Advanced Standing*—Professor Richards.

*Boy Scout Activity*—Professors George R. Hill, Jr., Hogen-son, Harris, Richards, Fletcher, William Peterson, Henry Peterson.

*High School Relations*—Professors Pedersen, M. C. Merrill, Robinson.

## Branch Agricultural College of Utah at Cedar City

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### OFFICERS OF ADMINISTRATION AND FACULTY

ELMER GEORGE PETERSON, A. M., Ph. D.  
President

P. VINCENT CARDON, B. S.  
Director.

PARLEY DALLEY, B. S.  
Instructor in Physical Science and Mathematics.

JOHN L. COBURN, B. S.  
Financial Secretary.

JOHN S. CHRISTENSEN, B. S.  
Director of Physical Education, Assistant Instructor in Animal  
Husbandry

GEORGE H. LUNT, A. B.  
Instructor in History, Economics, Commercial Law.

GILBERT L. JANSON, A. M.  
Instructor in Commercial Subjects.

JOHN H. PENDLETON, B. S.  
Instructor in Woodwork, Mechanical Drawing, Mathematics.

LOTTIE H. ESPLIN, B. S.  
Instructor in English, Methods in Language and Literature.

F. C. BRAITHWAITE, B. S.  
Instructor in Art.

ANNA W. E. PETTIGREW  
Librarian.

GEORGE A. CROFT, B. S.  
Instructor in Forging, Machine, Automobile & Tractor Mechanics

CHRISTINE B. CLAYTON, B. S.  
Instructor in Domestic Science.

H. CLAUDE LEWIS, B. S.  
Instructor in Psychology and Education.

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Primary Supervisor in Charge of Training

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Instructor in Physical Education for Women.

## MARY URIE

Instructor in Domestic Art.

## D. L. SARGENT, B. S.

Instructor in Agriculture; Supt. of Farms.

## NORMAN McCARTY

Instructor in Music, Director Band and Orchestra.

## MYRTLE D. JANSON, A. B.

Instructor in English and Elocution

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 Critic Teachers in Training School.

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 Secretary.

## WILLIAM FLANIGAN

Engineer.

## CHARLES SLAUGHTER

Superintendent of Buildings and Grounds.

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 In Charge of Dairy.

## Farm Bureau Presidents

Robert White.....	Beaver, Beaver County
John F. Burton.....	Garland City, Box Elder County
Wilbur Burnham.....	Price, Carbon County
Ephraim Bergeson.....	Cornish, Cache County
George E. Holt.....	Farmington, Davis County
Alma Esplin.....	Cedar, Iron County
R. A. Meeks.....	Orderville, Kane County
H. E. Beck.....	Delta, Millard County
Lee Peterson.....	Morgan, Morgan County
Charles Morrill.....	Junction, Piute County
L. L. Bunnel.....	Provo, Utah County
A. Theodore Johnson .....	Vernal, Uinta County
David N. Beal.....	Ephraim, San Pete County
Parley Glover.....	Midvale, Salt Lake County
D. P. Jensen.....	Richfield, Sevier County
H. Lloyd Hansen.....	Monticello, San Juan County
John M. McKellar.....	Tooele, Tooele County
Frederick Crook.....	Heber, Wasatch County
Ernest McClellan.....	Loa, Wayne County
John H. Schmutz.....	St. George, Washington County
J. R. Beus.....	Hooper, Weber County
Nephi Sargent.....	Hoytsville, Summit County
O. W. Sitterud.....	Castledale, Emery County

# AGRICULTURAL COLLEGE OF UTAH

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## LOCATION

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 10,000; it is quiet, orderly, clean and generally attractive, with neat homes, substantial public buildings, electric lights, a sewer and a water system. The main streets are paved and cement walks ramify the city; an excellent street car line extends from the station to the College and the interurban connects Logan with other towns of the valley as well as with Salt Lake City.

The College, uniquely situated on a broad hill overlooking the city, one mile east of Main street, commands a view of the entire valley and surrounding mountain ranges. The site of the College was formed by the receding waters of prehistoric Lake Bonneville which built an enormous delta at the mouth of Logan canyon upon which the College buildings and farm are located. The beauty and geological significance of the location are perhaps unsurpassed. A few hundred yards to the south is the Logan river. A mile to the east is a magnificent mountain range with a picturesque canyon. In other directions are the towns and farms of Cache County distinctly visible through the clear atmosphere. The valley is a fertile, slightly uneven plain, 4,600 feet above sea level, about twelve by sixty miles in dimensions, almost entirely under cultivation and surrounded by the Wasatch mountains. It is one of the most attractive and healthful valleys in the West.

## POLICY

The Agricultural College of Utah provides, in accordance with the spirit of law under which it was 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 given thorough training in the sciences, mathematics, history English, art, modern languages and other related subjects. The object is 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; instruction in mechanic arts points out the most promising trades and teaches them so as to meet the needs of the State; instruction in commerce relates to 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; instruction in home economics teaches the women right living and economic independence.

The dominating spirit 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, 20,000 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 received, in 1917-18, about \$15,000 which will increase for four 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 situation 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 \$15,000 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 legislative action, the College receives annually 28.34 percent. of 28 percent. of the total tax revenue of the State, after deducting the revenue from 2.4 mills on the total State valuation (which is not to be exceeded), set aside for the support of the elementary and the high schools. In the same ratio the College will participate in the revenue from the recent occupational tax. 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 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; various special, practical, year and winter courses in agriculture, 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 Business Administration and the School of General Science and in 1911 the School of Agricultural Engineering.

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

In December, in 1918, the Board of Trustees authorized the establishment of an Agricultural Engineering Experiment Station to include the departments of irrigation and drainage, roads, farm machinery and transportation, manufacture of agricultural products, rural architecture and buildings and rural sanitation and public health. The Utah Agricultural College is the first such institution in the United States to establish an agricultural engineering experiment station as a distinct division.

Since 1917, the Institution has consistently aided the Federal Government in war and post-war programs. During 1917-18, the College trained 492 young men in its Reserve Officers' Training Corps. Six hundred eighty soldier mechanics were trained at the Institution during the summer of 1918. With the establishment at the College in the fall of 1918 of a unit of the Students' Army Training Corps, seven hundred twenty-four men were given collegiate and vocational military training. A

large percentage of former U. A. C. students who saw service were commissioned.

The College gave valuable instruction in problems of increased production and consumption through its class room work. Twenty-five years of untiring experimentation showed excellent results when applied by Experiment Station specialists to concrete problems of production. The value to the State of the war service of the Extension Division was conservatively estimated at \$4,738,027.00.

## GOVERNMENT

The government of the College is vested primarily in the Board of Trustees and, under their control, in 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 and Business Administration, Mechanic Arts, General Science and Summer



Quarter—the Director of Interior Instruction, the Director of the Experiment Station and the Director of the Extension Division: This body has immediate supervision of 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 and all members of the faculty holding the rank of professor, associate professor or assistant professor. 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, ranking professors, 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 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 heads, 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. 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 ex-

pense for 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 by the administrative bodies of the College.

## ADMISSION AND GRADUATION

**ADMISSION.** Entrance to the freshman class is based upon a certificate of graduation from an accredited high school; or upon examination, in case of students of special training not obtained in high school.

A high school unit is equivalent to four preparatory credits that are one hour in length and extend over a period of 36 weeks or to five that are forty-five minutes in length and extend over the same period of time.

A student may be ranked as a conditional Freshman provided he is deficient in not more than one and one-half units of high school work. This deficiency must be removed, however, before the student is admitted to Junior standing.

Students who have more than one and one-half units of high school deficiency can not enter unless they are 18 years of age, in which case they must register in the vocational courses (See page 67.)

**ADVANCED STANDING.** Advanced standing for college work taken after completion of four years of high school may be granted at any time by the Committee on Advanced Standing provided the student presents satisfactory evidence that the work offered is equivalent to the work for which he wishes to substitute it.

Advanced standing or college credit for high school units

earned in excess of fifteen units may be allowed at the time the student is given Junior class standing provided:

(a) That the work for which advanced credit is sought be as advanced as the work given in the Freshman year;

(b) That in each subject the work be approved by the department concerned; and

(c) That not more than nine hours of the first two years of his college work and none of the work submitted for advanced credit, shall have a grade lower than "B."

The ratio of transfer shall be nine (9) credits for one unit of high school work, unless otherwise recommended by the department concerned.

Twenty-seven (27) credit-hours shall be the maximum acceptable on an excess transfer from high school.

Advanced Senior College standing for junior college credits in excess of quarter hours may be allowed at the time the student is given senior class standing provided:

(a) That no subject be transferred with a grade lower than "B";

(b) That not to exceed twelve quarter hours above the ninety be transferred;

(c) That not more than six hours of work below "B" in grade be done at the Utah Agricultural College during the Junior year; and

(d) That the approval of the department or departments concerned in the transfer be obtained.

CLASS STANDING. Students are ranked as Freshmen, Sophomores, Juniors and Seniors at the time they enter and this rank, when once fixed, is not changed during the school year.

Thirty-six hours (36) of approved college work, in addition to the prescribed entrance requirements, are required for Sophomore rank; eighty-one hours for Junior rank (see pages 30-31.) and one hundred thirty hours for Senior rank. The fore-

going requirements are to be exclusive of the required courses in Physical Education and Drill.

**ADMISSION TO VOCATIONAL COURSES.** Only persons 18 years or over are admitted to the vocational courses. No examination is required for admission to these courses.

To graduate from any of the schools, or to obtain class standing, special students not having the prescribed entrance requirements must satisfy a committee, by special examination, of their ability to pass the entrance requirements. This committee shall consist of the committee on entrance, the professor of English and two members of the faculty from the school in which the student wants to do his major work. Application for the examination, which must be taken not later than the beginning of the Junior year, may be made to the Registrar the first of the last week of any quarter.

**REGISTRATION.** The fall quarter opens Monday, September 12; the winter quarter, Monday, November 28; and the spring quarter, Monday, March 6. It is of decided advantage to register upon the opening date. The amount of work for which any student will be allowed to register will be reduced by one and one-half credit hours for each week or fraction thereof that the student is late in registration.

Fifteen hours, exclusive of Physical Education and Drill, is the normal registration for any one term. A student may, however, with the consent of the school director, register for seventeen hours.

**QUARTER HOURS.** A quarter hour of credit is the credit given for one hour of lecture or three hours of laboratory work each week for twelve weeks. This is the basis upon which credits are now calculated at the College.

**SEMESTER HOURS.** Semester hours of credit were employed at the College previous to September 1, 1918. A semester hour is the same as a quarter hour, except that the period is eighteen weeks.

Semester hours may be converted into quarter hours by multiplying by one and one-half.

## **JUNIOR AND SENIOR COLLEGE COURSES**

The collegiate work of the institution is divided into two divisions: Junior College courses and Senior College courses.

**JUNIOR COLLEGE COURSES.** Any student who has met the entrance requirements imposed upon the Freshman class may pursue any of the Junior College courses provided he has had the necessary prerequisites.

**SENIOR COLLEGE COURSES.** Any student wishing to pursue Senior College courses in any subject must first obtain full Junior class standing and have complete Junior College requirements in that subject, provided that any student having the necessary qualifications may pursue a Senior College course after receiving the permission of the instructor of the course and the director of the school in which he is registered.

**JUNIOR CLASS STANDING.** To obtain Junior class standing a student must have completely satisfied the entrance requirements. He must have satisfied all of the Junior College requirements in Physical Education and Drill and, in addition, present eighty-one hours of Junior College work which shall include forty-eight hours of the work in the required groups. (See pages 63 and following.)

**GRADUATION.** The degree of Bachelor of Science in Agriculture, Home Economics, Agricultural Engineering, Commerce, Mechanic Arts or General Science, is conferred upon those who present 15 units of high school work and full Junior class standing together with 54 hours of work from the Senior College and sufficient work from either college to make the total number of hours presented equal to 180 exclusive of the required courses in Physical Education and Drill (See pages 170 and 177.) The candidate for the bachelor's degree in Agriculture must also



pass an examination at the beginning of his senior year in farm practice to be given by the head of the department in which the student is majoring, the director of the School of Agriculture and one other to be selected by these two. A student who has been excused from Physical Education or Drill for physical disability or other valid reason must present an equivalent amount of other work for graduation. The student must meet all of the general requirements of the College (see pages 38-40) and all of the group requirements of the school from which he wishes to graduate. (See pages 63 and following.)

**OTHER REQUIREMENTS FOR GRADUATION.** The student must have been in attendance at least one school year preceding the conferring of the degree. This residence period must include his senior year, unless specific arrangements to the contrary have been made. He must have no grade lower than "D" in any subject used for graduation. Four-fifths of his quarter grades must be "C" or better. He must be of good moral character. He must have discharged all college fees. He must be recommended for graduation by the faculty of the school in which he is doing his major work and must receive the favorable vote of two-thirds of the members of the College Council. Unless he secures an excuse in writing from the Committee on Graduation, he must be present in person at the commencement exercises at which he secures his degree.

No student may be recommended to the College Council for graduation as long as he has any deficient grades in any subject used toward graduation. Students who expect to graduate at the June commencement must have their work in shape for presentation to the College Council at least 60 days before commencement.

**GRADUATION AT THE CLOSE OF THE SUMMER QUARTER.** Any student who can satisfy the requirements for graduation by the close of the Summer Quarter may be presented to the College Council in May. Such students are listed

with the class of the following year and receive their public graduation at the following Commencement. The graduation of such students, however, will be certified to by the proper authorities of the College as soon as their work is completed, *provided* it is completed before September 15 of the year in which they are passed upon for graduation.

The College Council is the only body that has the authority to waive or abridge in any way the foregoing requirements for graduation.

## REQUIREMENTS FOR ADVANCED DEGREES

### THE MASTER'S DEGREE

The degree of Master of Science may be granted on the completion of the following requirements:

The candidate must have been in actual residence at the College at least one (1) year after receiving the Bachelor's degree, and must obtain fifty-one (51) credits for work in addition to the 180 College credits and 15 High School units required for the Bachelor's degree.

To be admitted to the candidacy for the Master's degree the student must have his course of study approved by November 1 by the faculty of the school in which his major subject is taken.

A thesis covering work done in the major department must be prepared by May 1 and must be accepted by the faculty of the department.

The candidate must successfully pass an oral examination, which will be given by the heads of departments of the School in which the major subject is taken.

### THE DOCTOR'S DEGREE

The degree of Doctor of Philosophy may be granted within certain departments of the College on the completion of the following requirements:

The candidate must have been in actual residence at a stand-

ard college or university' at least three school years equivalent to nine quarters after having obtained a standard bachelor's degree, residence while an instructor not included. At least one of these years of residence must be at the Utah Agricultural College.

The candidate must satisfy the requirements of a major and two minor departments, these departments to be selected by the candidate with the approval of the Committee on Graduate Work from such departments and only such as are approved by the College Council and are equipped to give this type of work.

A thesis covering work done in the major department representing a high grade of research must be completed by May of the year of graduation and must be accepted by the three instructors in charge of the candidate's major and minor work together with the Committee on Graduate Work.

The candidate must satisfy the Department of Modern Languages that he has a reading knowledge of at least two foreign languages by November 1, previous to the commencement in which the degree is to be conferred.

The final requirements for graduation must be approved by the College Council by November 1, previous to the commencement at which the degree is to be conferred.

The candidate must successfully pass a public, oral examination which will be given under the direction of the Committee on Graduate Work by the three professors in charge of his major and minor work together with such heads of departments of related subjects as may be determined by the professors in charge of the major and minor work.

Registration of candidates for advanced degrees is to be made through the Committee on Graduate Work.

### ORGANIZATION

The work of the College 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 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.
2. The Agricultural Engineering Experiment Station.

II. Instruction on the College Campus—the College Proper.

3. The School of Agriculture.
4. The School of Home Economics.
5. The School of Agricultural Engineering.
6. The School of Mechanic Arts.
7. The School of Commerce and Business Administration.
8. The School of General Science.
9. The Summer Quarter.

III. Instruction beyond the College campus.

10. The Extension Division.

The instructional and investigational force and equipment necessary to carry out the work of the above divisions are organized into departments, of co-ordinate authority, each of which represents a somewhat definite field of knowledge. All officers of instruction or experimentation belong to one or another of these departments. One professor, designated head, carries the administrative responsibility of the department. At present, the College maintains forty-seven departments.

### THE STUDENT BODY ORGANIZATION

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 a member of the Rocky Mountain Conference, a fact which insures an interesting athletic program.

2. *Musicals*, including all public performances of the Band, the Orchestra and musical clubs.

3. *Theatricals*. In the past, *A Midsummer Night's Dream*, *She Stoops to Conquer*, *Pygmalion*, *Milestones*, *The Admirable Crichton*, *What Every Woman Knows* and various other productions, have been presented.

4. *Debating and Public Speaking*. Triangular debating arrangements have been made whereby, annually, the Agricultural College debates the University of Utah and the Brigham Young University on the same question. Interstate debates are also held. Those who make places on the teams not only win awards but are admitted to membership in the Agora, an honorary debating fraternity. Debaters showing special excellence are admitted to membership in Tau Kappa Alpha, a national honorary debating fraternity, a chapter of which is established at the College. Interest in inter-class debating is keen.

The annual oratorical contests for the Hendricks medal, for that given by The Sons of the American Revolution and for the chance to represent the College in the Inter-collegiate Peace contests, maintain among the students an active interest in extemporaneous public speaking. For dates of these contests, see college calendar, page 5.

5. *Student Publications*. The students of the College, under the direction of the faculty of English, publish a weekly school paper, *Student Life*, and a humorous magazine, *The Magpie*. The

junior class publishes the College year book, named *The Buzzer*; the Quill Club, the *Agi-Literose*; the Agricultural Club, the Ag. Club Link.

6. *Lyceum Course*. Each year the Student Body presents, in connection with the B. Y. College, from six to eight lecturers, readers, or musical attractions, of national or local repute. These entertainments are free to members of the Student Body.

### STUDENT 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 has effected 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. 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 School of Commerce and Business Administration, 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 of the State, on topics of special interest to the business man. All commercial students are eligible to membership.

*The Mechanic Arts Association*, designed to promote the so-

cial 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 from the upper two-fifths of the junior and senior classes in agriculture.

*Phi Kappa Phi*, a chapter of the national honorary fraternity.

*Tau Kappa Alpha*, a chapter of the national honorary debating fraternity.

*The Agora*, a local organization open to men from 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. Students may become members of both *Tau Kappa Alpha* and of *The Agora*.

*The Chemistry Club*, organized to promote interest in chemistry.

*The Be-No Club*, organized to foster scholarship, fellowship and loyalty.

*The Benedicts' Club*, designed to promote the social welfare of married students and to lower their expenses by co-operative buying.

*The Periwig Club*, composed of students prominent in dramatics. This club produces annually several plays.

*The Booklovers' Club*, organized for the study of subjects related to English literature but not usually treated in the classroom.

*The Quill Club*, an organization of writers.

*The Camera Club*, a group of students interested in artistic photography.

*The Cosmos Club*, organized for the study of present day problems; open only to men.

*The Empyrean Club*, organized for the study of current problems; open only to women.

*Le Cercle Francais*, maintained by students in French for practice in speaking the language.

*The Cosmopolitan Club*, composed of students who have lived in other countries than the United States.

*Beaux Arts Guild*, designed to encourage interest in the various phases of Art by lectures and informal social meetings.

*Alpha Sigma Nu*, a senior honorary society. Membership is maintained by elections from the Junior class held each spring.

*Kappa Omricon Kappa*, an honorary, professional home economics sorority, designed to encourage interest in home economics.

Various other clubs, as well as a number of fraternities and sororities, are also in successful operation.

## STUDENT EXPENSES

Tuition is free. Utah students pay an annual entrance fee of \$25.00; students from other states pay \$50.00. By State law, however, the Institution may relieve worthy and deserving students from payment of the entrance fee, provided that not more than ten per cent. of the total student body be relieved of this fee in any one year. A uniform laboratory and library fee of \$5.00 for the school year or of \$2.00 for each quarter, if the student is not in attendance for three quarters, a gymnasium fee of \$1.00 for each quarter, a medical fee of \$2.00 for each quarter and a withdrawal deposit of \$1.00, are charged every student.

Every regular student must pay a Student Body fee of \$5.00 if registered for three quarters, of \$4.00 if registered for two quarters and of \$2.00 if registered for one quarter, for which a membership card is issued admitting him to all the activities controlled by the Student Body organization: athletic events—football, baseball, basketball, 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.

The Utah Agricultural College has been designated by law as an Institution where units of the Reserve Officers' Training Corps are maintained. As such it has promised the Government to give certain military instruction of a definite kind and character.

Every physically fit male student who registers at the College becomes automatically a member of the Reserve Officers' Training Corps and subscribes to the military requirements of the institution.

In order to remain and receive instruction at the College or to graduate finally from the College, the student must be in attendance at all military classes and do satisfactory work in them.

The student, by registration at the Institution, obligates himself to conform to such requirements as are or may be prescribed by the College Council under the regulations of the Reserve Officers' Training corps. These requirements, at present, are as follows: Two years of required military training, followed by two years of optional military training. Free uniforms are furnished by the War department to those taking the required work. Those taking the last two years receive, in addition to free uniforms, commutation of subsistence. The requirements will vary slightly according to the military units in which the student registers. During the year 1921-22, the units to be maintained at the College include Coast Artillery, Motor Transport and Infantry.

All women students who are physically fit must take Physical Education during the first two years of their college work at the Institution, or until they have satisfactorily completed Physical Education 11 and 12 or their equivalents. All vocational women students must register in Physical Education 10.

Each student taking Physical Education must provide herself with gymnasium suits and gymnasium shoes. Cost, about \$6.00.

Each student in Foods and Dietetics courses must provide herself with the following: two hair nets, one or two white petticoats, two washable white uniforms, two white work aprons.

The uniforms and aprons must be of the standard designs provided by the Textiles and Clothing Department.

Materials should be procured after consultation with the instructors in charge.

All graduates from the School of Home Economics who desire to qualify as teachers in home economics under the Smith-Hughes Act must spend a period of six weeks in residence at the Practice Home. The expenses are \$6.00 per week for board and room.

The fee charged for a diploma of graduation is \$5.00.

Good board and room in a private home costs from \$6 to \$7.50 a week. By renting rooms and boarding themselves, students are able to reduce considerably the cost of room and board.

The College maintains a modern, well equipped cafeteria.

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

The following table furnishes an estimate of the actual yearly expenses of students attending the Utah Agricultural College:

	Lowest	Average	Liberal
Tuition, books, fees, etc. ....	\$ 65	\$ 65	\$ 65
Room and board .....	200	225	270
Incidentals or miscellaneous .....	40	80	135
	<hr/>	<hr/>	<hr/>
Total .....	\$305	\$370	\$470

The Senior Loan Fund, maintained by the Student Body, has helped many students through school.

*The Johansen Scholarship Fund* of \$5,000, a gift of the late Mrs. Johanna Johansen, provides three scholarships annually, each worth approximately \$120, for the help of worthy students of Junior or Senior rank.

## SCHOLARSHIPS AND AWARDS

*The One Thousand Dollar Liberty Bond Endowment* yields a loan fund of \$40, which is to be loaned by the Directors' Council to a student who has made formal application before April 2, and who has need of financial help and who has demonstrated a high degree of scholarship in the work of previous quarters.

*The U. A. Faculty Women's League* endows the Institution with a fund of \$50, to be given annually as a scholarship to a worthy and deserving student of the School of Home Economics.

*The Lois Hayball Medal* is to be awarded annually to a Junior or Senior student in the School of Home Economics on the following basis:

(a) Qualities of womanhood.

(b) Evidence of application of Home Economic principles in every relation of daily life.

(c) Proficiency in scholastic attainments.

*The Hendricks Medal*, a gift of Mrs. Carrie M. Hendricks in memory of the late Professor George B. Hendricks, is awarded yearly to the student who delivers the best extemporaneous speech.

*The Sons of the American Revolution* award a medal annually for the best patriotic speech.

*The Casto Medal*, a gift of Mr. George D. Casto, is presented annually for the best memorized speech.

*The Vernon Medal*, a gift of Dr. Weston Vernon, is given each year for the best short story written around western characters and with a western setting.

*The Howell Medal*, a gift of Howell Brothers, is given annually to the best inter-collegiate debater.

*The Men's Shop Medals*, a gift of The Men's Shop, are given annually to the members of the championship inter-class debating team.

*The Utah Agricultural College Science Medal*, a gift of Pro-

fessor William Peterson, is given each year to the student writing the best review of recent scientific research in either mathematics, physics, chemistry, geology, zoology, botany or astronomy.

A loving cup, for scholarship, the gift of Dr. W. L. Wannlass, is presented each year to the social fraternity showing the highest scholarship. This cup will become the property of the first fraternity to win it three times.

*Scholarship A's* are given at the close of each year to the six highest ranking students.

A list of the recipients of various honors will be found at the back of the catalog.

Several further awards are given for athletic and other student-body activities.

## BUILDINGS AND EQUIPMENT

The College now has nearly thirty buildings, all modern, well lighted and heated and all carefully planned.

THE MAIN BUILDING 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 WOMEN'S BUILDING is one of the largest and best equipped structures devoted entirely to domestic science and arts in the inter-mountain region.

THE THOMAS SMART GYMNASIUM is one of the finest and most complete college gymnasiums in the Rocky Mountain region. It contains a main exercise hall, 114 by 70 feet, the equipment of which can be quickly put in place or hoisted out of the way to suit any need. Ten feet above the main floor is a running-track, a hand-ball court and a wrestling and boxing room. The large pool, shower and steam baths and dressing rooms with steel lockers are ideal.

THE EXPERIMENT STATION is a two-story brick structure

45 feet long and 35 feet wide, containing the offices of the station staff, a reading room and a dark room for photography.

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

THE CHEMISTRY BUILDING, containing three stories, thoroughly modern in plan and equipment, is occupied by the Departments of Chemistry, Physics and Bacteriology.

THE LIVE-STOCK BUILDING of three stories is exceptionally well fitted with facilities for the study of dairying, hog, horse and sheep husbandry and range management.

THE AGRICULTURAL ENGINEERING BUILDING, an excellently arranged three story brick structure, houses the Departments of Irrigation and Drainage, Surveying, Hydraulics, Mechanical Drawing, Architecture, Household Sanitation, Farm Mechanics, including auto and tractor work and some related phases of the work of the Institution.

THE PLANT INDUSTRY BUILDING is a four story brick building, thoroughly modern in arrangement. It houses the departments of Agronomy, Botany and Plant Pathology and Horticulture.

THE BARNS contain the various breeds of cattle, horses, sheep and hogs most common in the western section.

THE HORSE BARN is the most modern structure of its kind that can be built.

THE STOCK JUDGING PAVILION makes it possible to do stock judging in all kinds of weather.

THE POULTRY YARDS are equipped with various types of buildings to accommodate about one thousand fowls, a brooder house with a capacity of 2,500 chicks and a modern incubator cellar with standard incubators of several makes and designs.



The laboratory is well supplied with different styles and sizes of incubators, brooders, food hoppers, etc., suited to use in study of the management of large and small flocks.

THE GREENHOUSES are prepared for laboratory instruction in the propagation of horticultural plants and in the practice of floriculture and vegetable gardening.

THE VETERINARY HOSPITAL contains a well-equipped dispensary, operating room and stalls for patients.

THE VEGETATION HOUSE will be ready this fall. It will form the first unit of a new and extensive greenhouse system.

THE SEED HOUSE is designed as a store house for the seeds of the Department of Agronomy.

THE HEATING PLANT, in order to take care of the many new buildings on the College Campus, has been doubled in size and will insure properly heated laboratories and class rooms.

## EQUIPMENT

*The Bacteriological Laboratory* is well equipped with modern apparatus. To encourage careful work, the students are provided with individual lockers.

*The Chemical Laboratories* are modern and thoroughly equipped.

*The Physical Laboratory Equipment* is complete, consisting of all the necessary apparatus for class demonstration. Gas, compressed air, continuous and alternating current electrical power, etc., are available.

*The Physiological Laboratory* is supplied with an excellent collection of native animals, skeletons, both articulated and disarticulated, many enlarged models of organs, a *papier mache* manikin and complete slides of all the tissues.

*The Zoological and Entomological Laboratory* is equipped with water and gas, improved instruments, embryological models, skeletons from the vertebrate groups, collections of mounted birds, mammals, reptiles, fishes and insects.

*The Botanical and Plant Pathological Laboratory* is well equipped for general work as well as for research. 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.

*The farm crops laboratory*, equipped with gas, has a large supply of farm crops on hand and is well supplied with apparatus.

*The Commercial Rooms*, occupying the entire third floor of the front of the Main building, are specially designed and furnished for business. The room for typewriting contains a full complement of standard machines.

*The College Museum* contains many specimens illustrative of geology, mineralogy, paleontology and vertebrate and invertebrate zoology, including a large series of the insects of the inter-mountain region and 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 museum, are appreciated. All gifts are labeled and preserved and the name of the donor is recorded.

*The Art Rooms*, composed of six studios, are supplied with plain and adjustable tables, easels and model stands, individual lockers, cases for materials, casts from the old masters in sculpture, reproductions of great paintings, still-life models and drap-

eries, as well as with a valuable collection of ceramics, textiles and books on art.

*The Library* occupies the entire front of the second floor of the Main building. It is the laboratory for every course given at the College and contains about 34,400 books and a large number of pamphlets. The books are classified by the Dewey decimal system and there is a complete dictionary card catalog. The shelf list, also on cards, forms a classified catalog for official use.

The library is also a depository for United States documents and for the Carnegie Institute. The files of the United States Department of Agriculture and publications of the Experiment Stations are nearly complete; the bulletins are bound and made easy of access by the printed card catalogs. There are one hundred and forty periodicals on the subscription lists, besides about one hundred which are received as exchanges for publications of the College and of the Experiment Station. Practically all the newspapers of the State are on file in the Reading Room. The Reading Room is beautifully furnished in oak and contains many oil paintings and pieces of statuary.

The land occupied by the College embraces about 142 acres. Of this, thirty-five acres constitute the campus, laid out with flower-beds, broad stretches of lawn, tennis courts, wide drives and walks.

Immediately east of the Main building is the quadrangle of about ten acres. The Adams athletic field is one-fourth mile west of the campus. The farms comprise 97 acres, the orchards and the small fruit and vegetable gardens, 10 acres.

In order to enlarge the experimental and instructional opportunities of the faculty and students of the college, the State Legislature in 1919 authorized the expenditure of \$25,000 to purchase additional farm land.

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 EXPERIMENT STATION

*The Agricultural Experiment Station* is a division of the College, supported by Federal and State appropriations supplemented by the receipts from the sales of farm products. The Station was created for the purpose of discovering new truths that may be applied in agriculture and for making new applications of well-established laws. Essentially devoted to research, it does the most advanced work of the College. It is composed of seventeen departments with a staff of over thirty highly-trained specialists who are investigating over fifty distinct projects.

The 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 another 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 region. Irrigation, the foundation of western agriculture, has received greatest attention. Elaborate experimental plats have been equipped where the value of different quantities of water and methods of application have been studied and the underlying principles brought out.

Dry-farming 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 is made to increase production. 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 agriculture of the West are under investigation. Alkali, the big problem of all arid and semiarid countries, is receiving considerable attention. Breed-

ing experiments for the improvement of sugar beets, potatoes, cereals, alfalfa and poultry are in progress. Insect pests and plant diseases affecting western crops and orchards are under constant surveillance. The micro-organisms of the soil, which have recently been found to be an important factor in agriculture, are being studied. The development of better cropping methods, the dairy industry and the range lands of the State are receiving attention together with various livestock rations. Plant disease, horticultural and soil surveys are now in progress. Among the last projects to be started are human nutrition investigations and a study of the farm management problems of Utah.

Bulletins containing the results of experimental work and circulars containing timely and practical information on various subjects are issued at irregular intervals. These are mailed free of charge to all persons requesting them.

The Experiment Station has a high educational value. Nearly all the 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, as well as training in their application. The opportunities that the Station offers for advanced work in several branches of science are of great importance. The scientific method and spirit characterize all its operations and none can fail to be benefited by a study of the experiments that go on at all times of the year.

The Station is always glad to assist advanced students in any investigation they wish to undertake.

## THE AGRICULTURAL ENGINEERING EXPERIMENT STATION

The Board of Trustees established in 1918 an Agricultural Engineering Experiment Station as a separate division of the work of the College. The organization of the agricultural engineering experiment station is a logical development of the work of the College following the organization in 1911 of the



School of Agricultural Engineering. It will enable the college to use part of its funds, both federal and state, in the investigation of the many problems which confront the development of agriculture on the engineering side.

The profession of rural engineering is almost a realization. The farmer must, therefore, be advised fully in regard to engineering as it affects rural communities. That there was a direct need for this organization, is evidenced by the fact that much work which is properly a part of the work of such a station has been carried on informally by various departments of the college. The work of the Agricultural Engineering Experiment Station will continue in a more complete way the work which has thus already been undertaken informally and it will branch out ultimately to include all of those problems wherein the profession of engineering touches that of agriculture.

As organized at present, the Agricultural Engineering Experiment Station consists of the Departments of Irrigation and Drainage, Roads, Farm Machinery and Transportation, Manufacture of Agricultural Products, Rural Architecture and Buildings and Rural Sanitation and Public Health. Complete programs of work have already been outlined in these different departments and comprehensive investigations are under way.

In the Department of Irrigation and Drainage the plan is to study in detail irrigation institutions best suited for Utah; to determine what irrigation practices result in maximum crop production; to investigate water measurement devices and engineering structures used in the transmission of water from intake to farm; to study special types of distribution systems with an idea of determining which are at once the most efficient and most economical; to study the management and operation of irrigation systems; to determine what trench machines work best under western conditions and to make a complete investigation of well-drilling machinery, methods of well-boring, ways

of locating the under-ground water supply and the determination of the best fuels to use in pumping.

The Department of Roads will pay particular attention to the development of a type of road which will at once stand the wear of heavy farm traffic and yet be easy to construct and utilize local materials in its makeup. In these investigations various gravels and sands to be found in different sections of Utah will be studied in order to determine their value as road materials. The importance of such a type of road cannot be overestimated because it will tend to a rapid improvement of rural roads throughout the state. The construction of bridges will also be studied.

The rapid development of the farm tractor and the great increase in the use of farm machinery in general have made it necessary that there be available complete information concerning the best types of farm machinery for western conditions. The Department of Farm Machinery and Transportation has outlined very liberal projects for investigation. Briefly stated, they are as follows: The practicability of tractors in inter-mountain farming, including the effects of high altitudes and steep slopes on the power of the tractor, the effect on cultivation and yield of the soil-packing tendency of the tractor and the effect of dust on the life of the engine; the economic value of the motor truck in hauling farm products; the future of gas power on the farm used for either pumping plants or for electric lighting plants; the improvement of beet cultivating and beet harvesting machinery; the efficiency of the small combined harvester for dry farming; a comparison of kerosene and gasoline as fuels for farm tractors and a study of proper lubricants for the gas motor.

The manufacture of agricultural products has been little studied in Utah and the field for investigation here offered to the new experiment station is very broad. The proposed investigations cover the manufacture and preserving of food

products; the care and utilization of clothing; the production of raw materials on the farm; the manufacture of foodstuffs, including the processes of milling, canning, pickling and evaporating; the manufacture of textiles; and the utilization of by-products from manufacturing establishments.

The Department of Rural Architecture and Buildings will study the entire architectural problem as applied to the rural community. This will include, not only the proper planning of farm homes, barns and other structures, but the ventilating, heating and lighting problems to be met with away from the urban centers. A careful study will be made of proper building materials and of farm equipment.

The Department of Rural Sanitation and Public Health will deal with the problems of the health of the rural community. These will include a study of the sanitation of milk and water supplies; the sanitation of food; the sanitation of the home, including sanitary problems as they apply to location, heating, lighting, ventilation and sewage disposal of the farm home; the prevention of diseases; and studies in nutrition and child welfare.

## THE EXTENSION DIVISION

Organized for the purpose of disseminating the work of the College and the United States Department of Agriculture among the people of the State and for the further purpose of beginning new work outside the College which may be of service to the people of the State, the Extension Division 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. The Extension Division is the joint representative in Utah of the United States Department of Agriculture and the Utah Agricultural College.

### ADMINISTRATION

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

Administration	Junior Extension Work.
Specialists	Institutes and Schools
County Agent Work	Correspondence Study
Home Demonstration Work.	Community Service Bureau

A corps of specialists is maintained at the College for the purpose of giving special aid to the Extension agents in the counties and otherwise promoting their special lines of work.

County Agricultural Agents are maintained in most of the counties of the State. Their chief work consists in aiding the farm bureaus in developing and executing a program of agricultural improvement, in making necessary calls to individual farms, in supplying market quotations and in otherwise rendering service to the farmer.

County and city home agents are maintained in a number of counties and cities of the State. The purpose of this work is to develop and carry out a definite program of home improvement which is done by working through organizations and by individual calls as far as possible. This work is carried on through the home section of the farm bureaus.

County Club Agents are maintained for the purpose of organizing junior units of the farm bureaus and supervising and assisting the boys and girls in carrying out definite projects of the bureaus. Under this plan the primary purpose is to develop leadership and train boys and girls in better methods of farm and home practice.

The Department of Institutes and Schools conducts meetings and courses among the farmers, housewives and schools of the State. This work will be done through the farm bureaus co-operating with such other organizations as may be interested. These meetings may be single or one day meetings, called in-

stitutes, or they may be systematically organized courses in one or many subjects, called schools. The Annual Farmers' Round-Up and Housekeepers' Conference at the Agricultural College at Logan and at the Branch Agricultural College at Cedar City come under this department.

The Correspondence Study Department. The Utah Agricultural College was one of the first educational institutions in the inter-mountain region to establish such a department.

Correspondence study furnishes an excellent opportunity for systematic instruction to the student preparing for high school or college, the teacher, the professional or business man, the club woman,—to all who cannot leave home.

Admission to correspondence work. Students must be eighteen years of age or graduates of the public school.

Scope. Courses offered:

1. Academic studies which, under certain restrictions, count toward a degree.

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

3. Reading Courses for the farmer: short, practical, non-credit courses in agronomy, animal husbandry, horticulture, farm machinery, bee-keeping, etc.

4. Reading Courses for the housewife: short, practical non-credit courses in sanitation, home management, cooking service, sewing, home decoration home care of the sick, etc.

5. Reading Courses for the business man: short, practical non-credit courses in analysis of retail merchandising, retail store accounting, bookkeeping for the wholesale grocer, bookkeeping for co-operative grain elevators and creameries.

6. Preparatory or high school courses.

7. Grade studies.

A special bulletin of the corresponding study department will be mailed to any one interested.

The work of the Community Service Bureau, designed to



help Utah towns and villages in community celebrations, club work and school life, includes (a) play service, (b) club service, (c) community service, (d) debate service and (e) library service.

Publications of real value to the rural communities are issued in the form of circulars as occasions demand.

### COLLEGE PROPER

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 Economics; (3) The School of Agricultural Engineering; (4) The School of Commerce and Business Administration; (5) The School of Mechanic Arts; (6) The School of General Science; (7) The Summer Quarter.

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

*The School of Home Economics* offers a four-year college course with opportunity to major in foods and dietetics, household administration or textiles and clothing.

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

*The School of Commerce and Business Administration* offers a four-year college course with the opportunity to major in accounting and business practice, agricultural commerce, business administration, economics, history, marketing, political science or sociology.

*The School of Mechanic Arts* offers, in addition to shorter trade courses, a four-year college course in mechanic arts, with the opportunity to major in art, iron work, mechanical draw-

ing, machine and automobile work, technology of mechanic arts, woodwork.

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

*The Summer Quarter* offers instruction during twelve 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 *Work in Education*, see index.

### 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 equal the demand.

Experience having shown that practically all of the students who take agriculture come from the farms, it is assumed that they are acquainted with the various manual operations of farm work. The design of the school 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 agriculture. Before a degree will be granted in agriculture, the student must give evidence that he has spent at least one summer at farm work.

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 or minor see Required Work for Graduation.

### THE SCHOOL OF HOME ECONOMICS

The steady growth of Home Economics courses in leading colleges and universities indicates the ever increasing realization that the well conducted home is the most important factor in the development of healthful and capable citizenship. But the multiplying complexities of modern life demand, further, that those in charge of the family understand much that is beyond the exact limits of the home. Hence the stress laid on the study of childhood and adolescence, the causes underlying the high cost of living and the problems of social, industrial and civic life.

The State of Utah wisely introduced courses in home management when the College was organized and the support which has been accorded to the work by the public shows the wisdom which prompted this provision.

Year by year increased facilities have become available for the students in the School of Home Economics. The most recent addition to its efficiency, the College Practice Home, testifies to the sustained faith of the Board of Trustees in this department of College activity. Groups of six senior students reside in the Practice Home for successive periods of six weeks each, sharing the work of the household under the supervision of a woman who is professionally trained and who has had many years of experience in her own home. Here the young women have the

opportunity to test out the practical work of their foregoing College courses.

The technical work in this school is organized into three departments, each dealing with one of the three equally important and interrelated phases of Home Economics. These are the Departments of Food and Dietetics, Household Administration and Textiles and Clothing. The course as a whole includes certain foundational courses in science and art that are prerequisite to the technical work and the so-called cultural courses, which must be included both to make a true Home Economics Course and to meet the College graduation requirements. This combination is well designed to fit women for the following professions: (1) Home Keeping, (2) Teaching of Home Economics, (3) Home Economics Extension Work. It also prepares women to hold various positions in the social and industrial organizations; for instance, as sanitary inspectors, dietitians, health visitors and designers and household decorators.

The completion of the Home Economics course requires four years of College work and leads to the degree of Bachelor of Science.

The vocational courses in Home Economics are offered to women who are unable to take the regular course and yet desire training in this work

## THE SCHOOL OF AGRICULTURAL ENGINEERING

The rural problem has many phases. An adequate and self-perpetuating country life cannot be made simply by teaching people how to raise grain and fruit and how to manage and improve livestock. The country might 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. Many problems having to do with the entire community rather than with the individual farmer 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, many questions on the individual farm have to do with construction rather than with production from the soil. These questions can be properly answered only by men with special training.

In the past, agricultural colleges have given their attention to the direct questions of farming, but now 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 work economically. The limited supply of irrigation water must be so used as to 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 them.

To meet the demand, the College has organized a School of Agricultural Engineering designed to enable men to solve all but the most technical engineering problems of an entire rural community. The courses are very helpful to the farmer who does not wish to do the work of a trained engineer.

Students may major in art, agricultural surveying, farm mechanics, irrigation and drainage, farm and public roads, rural architecture and rural sanitation and public health. These courses all lead to the degree of Bachelor of Science.

### **THE SCHOOL OF COMMERCE AND BUSINESS ADMINISTRATION**

The purpose of the School of Commerce and Business Administration 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 are prepared to assume leadership and responsibility in business and in various industries and professions. In order to meet the growing demands and to keep pace with recent tendencies in business education, students may major in accounting and business practice, agricultural economics, business administration, economics, history, marketing, political science and sociology.

In addition to these college courses, vocational courses are offered.

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

The European War created an intense demand for men trained in foreign service and foreign trade. The Federal Bureau of Education has requested all colleges of the country to offer courses in preparation for such service. Accordingly, the School of Commerce and Business Administration has outlined a four years' course designed to fit students for foreign trade and diplomatic service. Especial emphasis will be placed on our South American commerce.

## THE SCHOOL OF MECHANIC ARTS

This school offers three-year trade courses in contracting and building, forging and carriage work and automobile repairing; a two-year trade course in painting and interior decoration; and a four-year college course leading to the degree of Bachelor of Science.

The information offered 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 man 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 enter 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.

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.

Students may major in art, iron work, mechanical drawing machine and automobile work, technology of mechanic arts and wood work. Vocational 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 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. 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.

For subjects in which students may major or minor, see Requirements for Graduation.

## EDUCATION

By act of the 1921 legislature the Utah Agricultural College is required to add education to its course of study. The purpose is to enable students to prepare for the teaching profession in the broad lines of work represented in the College curriculum. In answer to this demand of the State, courses have therefore been added in psychology and education.

While all eligible students may enter these courses, some of them are especially designed to prepare Smith-Hughes teachers in agriculture and home economics and others to prepare extension workers.

These courses will be especially inviting because of the great demand for people trained in these lines. The federal government and the various states now employ about 5,000 extension workers and there is always great demand for teachers of agriculture and home economics and of trades and industries. Those who graduate in this work will have good opportunities for employment on twelve-month contracts, while teachers in other lines usually have but nine-month contracts. This fact alone will draw large numbers into them.

To keep teachers of agriculture and of home economics and extension workers alive and growing and to give them incentive

to aspire to positions of broader usefulness, graduate courses will be offered that will apply to the getting of higher degrees and that will prepare for extension work as county agricultural agents, county home demonstration agents, agricultural specialists, home economic specialists and state and federal leaders in these lines. Advanced work will likewise be offered to prepare progressive teachers for greater responsibilities in Smith-Hughes work.

Vocational credits in education will be granted by the College for work done by high school students who are regularly registered in the junior extension school conducted each year by the College, subject to the following provisions:

a. That vocational credit be granted only to students who are registered for the course and complete the prescribed work under the supervision of a representative of the College.

b. That the credit shall be based upon the work done, but that not to exceed 4 quarter hours of credit shall be given.

c. That any excess high school credit resulting from doing this work shall be covered by the regular catalog provisions relating to excess high school credits.

## SUMMER QUARTER

The College maintains, as an integral part of its work, a summer session beginning early in June and continuing for twelve weeks, divided into two terms of six weeks each. Each 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, numerous courses in education are provided by the Department of Education as part of 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 re-

quirements 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 quarter credits in individual subjects in lieu of examination. An entrance fee of \$10 is charged. Board and rooms can be secured throughout the city at the usual prices. The special summer quarter circular will be sent on request.

### SCHEDULE OF WORK REQUIRED FOR GRADUATION

The student is advised to read carefully the requirements for admission and graduation on pages 27 to 32 inclusive. These are briefly summarized as follows:

A student must present 15 units of high school work for entrance, must complete all the required work in physical education and drill and, in addition, must present 180 quarter hours of college work before receiving his diploma. The student should carefully note that 54 hours of the required 180 hours of college work must be chosen from courses listed among the Senior College courses.

#### *Technical Division.*

Major Subject ..... 24 hours

Twenty-four hours forming a major subject must be chosen by the candidate in some one department. The student must consult with the professor in charge of his major subject and secure his approval of the proposed combination of courses. This should be done as early as possible and must be done not later than the beginning of the Senior Year.

Minor Subjects ..... 18 hours

Eighteen hours forming the minor subjects must be chosen in some other department or departments of the same school.



*General Division.*

Biological Science Group .....	18 hours
Exact Science Group .....	18 hours
Language Group .....	24 hours
Social Science Group .....	18 hours
Special Group .....	18 hours

The special group is additional work in one or more of the above groups in the general division or in educational subjects, and will be designated by the School Director.

Electives .....	42 hours
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These electives are entirely at the disposal of the student.

The departments from which the major and minor subjects may be elected and the subjects included in the various groups of the General Division are listed below.

## REQUIRED WORK.

*Technical Division.*

Major, 24 hours in one department.

Minors, 18 hours in some other department or departments of the same school.

## SCHOOL OF AGRICULTURE.

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

SCHOOL OF AGRICULTURAL ENGINEERING.

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

SCHOOL OF COMMERCE AND BUSINESS ADMINISTRATION.

Accounting and Business Practice	History
Agricultural Economics	Marketing
Art (minor only)	Political Science
Business Administration	Sociology
Economics	Stenography (minor only)
	Typewriting (minor only)

SCHOOL OF HOME ECONOMICS.

Art (minor only)	Foods and Dietetics
Household Administration	Textiles and Clothing
Music (minor only)	

SCHOOL OF MECHANIC ARTS.

Art	Machine and Automobile Work
Iron Work	Technology of Mechanic Arts
Mechanical Drawing	Wood Work

SCHOOL OF GENERAL SCIENCE.

Art	Geology
Bacteriology	History
Botany	Library Work (minor only)
Chemistry	Mathematics
Education	Music
English	Physics
Entomology	Physiology
Foreign Languages	Zoology

*General Division.*

Biological Science Group .....	18 hours
Exact Science Group .....	18 hours
Language Group .....	24 hours
Social Science Group .....	18 hours
Special Group .....	18 hours

The special group is additional work in one or more of the above groups in the general division or in educational subjects, and will be designated by the School Director.

Electives .....	42 hours
-----------------	----------

These electives are entirely at the disposal of the student.

The departments from which the major and minor subjects may be elected and the subjects included in the various groups of the General Division are listed below.

## REQUIRED WORK.

*Technical Division.*

Major, 24 hours in one department.

Minors, 18 hours in some other department or departments of the same school.

## SCHOOL OF AGRICULTURE.

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

SCHOOL OF AGRICULTURAL ENGINEERING.

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

SCHOOL OF COMMERCE AND BUSINESS ADMINISTRATION.

Accounting and Business Practice	History
Agricultural Economics	Marketing
Art (minor only)	Political Science
Business Administration	Sociology
Economics	Stenography (minor only)
	Typewriting (minor only)

SCHOOL OF HOME ECONOMICS.

Art (minor only)	Foods and Dietetics
Household Administration	Textiles and Clothing
Music (minor only)	

SCHOOL OF MECHANIC ARTS.

Art	Machine and Automobile Work
Iron Work	Technology of Mechanic Arts
Mechanical Drawing	Wood Work

SCHOOL OF GENERAL SCIENCE.

Art	Geology
Bacteriology	History
Botany	Library Work (minor only)
Chemistry	Mathematics
Education	Music
English	Physics
Entomology	Physiology
Foreign Languages	Zoology

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

### REQUIRED WORK.

#### *General Division.*

#### BIOLOGICAL SCIENCE GROUP (18 hours).

Bacteriology	Physiology
Botany	Veterinary Science
Entomology	Zoology

#### EXACT SCIENCE GROUP (18 hours).

Accounting	Mathematics
Chemistry	Physics
Geology	Surveying

#### LANGUAGE GROUP (24 hours).

English	Latin
French	Public Speaking
German	Spanish

#### SOCIAL SCIENCE GROUP (18 hours).

Agricultural Economics	Marketing
Business Administration	Political Science
Economics	Sociology
History	

#### SPECIAL GROUP (18 hours).

#### ELECTIVES (42 hours).



## VOCATIONAL COURSES

Vocational courses in agriculture, home economics, mechanic arts and commerce and business administration have been added to the regular work of the school. In these, emphasis is given subject matter which can be put to immediate and practical application on the farm, in the shop, in business or in the home.

No scholastic prerequisites are required for entering the vocational courses except that the student must have acquired 13½ high school units or be over eighteen years of age.

For full description of the vocational courses see departments concerned. All courses lettered "a," "b," "c," etc., are strictly vocational. Some of the elementary courses of college grade may be entered by vocational students, however, after consultation with the head of the department.

## TRADE COURSES

Three year courses, to prepare students for a trade, are given in the following lines of work: wood work, forging, machine and automobile work, and in interior decoration. Two years courses are given in the following lines of work: show card and sign writing, art metalry, china painting and fabric decoration.

Students wishing to prepare for a trade in any of the above lines should make arrangements with the heads of departments concerned. Upon completion of the work outlined and upon the approval of the College Council, they will receive a letter of recommendation stating their proficiency in the work.

## Suggested Courses for Various Professions

### SMITH-HUGHES COURSE IN AGRICULTURE

Suggested Course in Agriculture for Students Preparing for Teachers in Agriculture under the Smith-Hughes Act.

Freshman Year:				Sophomore Year:			
	I	II	III		I	II	III
Chemistry .....	1	5	5	Physics .....	3	3	3
Botany .....	5	5	5	Elocution .....	3	3	
English .....	2	2	2	Zoology .....	5		
Agronomy (Crops) .....	4	4		Anatomy .....		5	
Horticulture .....			4	Physiology .....			5
	16	16	16	Psychology .....			5
				Veterinary Science .....	4		
				Animal Husbandry .....		5	3
					15	16	16
Junior Year:				Senior Year:			
	I	II	III		I	II	III
Geology .....	5	5		Plant or Animal Breeding .....	5		
Agronomy (Soils) .....	4			Dairying .....	4		
Irrigation .....	5			Methods of Teaching .....			
Economics 2 .....		3	3	Agriculture .....	3		
Science of Ed. ....			5	Rural Education .....	3		
English .....		5		Teacher Training .....			3
Farm Mech .....	5			Farm Buildings .....	3		
Bacteriology .....			5	Surveying .....			3
Secondary Ed. ....			5	Critic Work .....			3
Elective .....		3		Sociology .....	3	3	
	19	16	18	Farm Management .....	5		
				Feeds and Feeding .....	5		
				Horticulture .....			3
					16	18	16

## EDUCATION

Students desiring to major in Education will register in the School of General Science. Such students in addition to their major work in Education must select a teaching major under the direction of the Director of the School of General Science. This teaching major may be chosen in any department of the College.

Suggested grouping of subject matter arranged primarily for girls who desire a four year course leading to the degree of Bachelor of Science with Education as the major subject.

Freshman Year:				Sophomore Year:			
	I	II	III		I	II	III
Art 1, 21, 2 (Applied Art and Design) .....	2	2	2	Education 4 .....	3	3	3
Elementary Psychology .....	5			Bacteriology (or Botany 1) .....			5
Education 2 .....		2	2	Zoology 1 (or Physiology 1) .....	3	3	
H. Ad. 3 (Home Health and Nursing) .....		3	3	Physical Education 12 .....	1	1	1
English 7 (Freshman Comp. and Rhetoric) .....	2	2	2	Economics 1 .....	3	3	3
Physics 3 (Household Physics) .....	4			Elective .....	7	7	5
Chemistry 1 (Applied Inorganic Chemistry) ..		4	2		17	17	17
Physical Education 11 .....	1	1	1				
Elective .....	3	3	3				
	17	17	17				

Suggested substitutes and electives for Freshman year are: Foods 1; Public Speaking 2; French 1; Music; Household Administration 1; English 6, History 3 or 4, Textiles 1 or 3. For Sophomore year: Art 22 or 27, English 5, Public Speaking 3, French 2, Chemistry 3, Geology 2, Foods 2, Textiles 2, Music, etc.

*Junior and Senior Years.*

All students must complete the group requirements for graduation mentioned on pages 63 to 66 inclusive.

*State High School Certificate*

Students desiring to qualify for the state high school certificate, should include sufficient education and other courses to meet the State Board requirements.

**STATE BOARD REQUIREMENTS FOR HIGH SCHOOL CERTIFICATES**

1. *Professional High School Certificate*: Valid for five years. This certificate is granted to applicants who have graduated from a standard college course of four years, or its equivalent. The applicant's college credits must show one year of professional work, including a course in psychology of at least five hours and in addition at least 27 quarter hours in educational subjects, among which science of education, secondary education, training and methods, or their equivalents are prescribed. The remainder of the year's work may be in such related subjects as ethics, logic, sociology, practical civics and hygiene and sanitation.

2. *Temporary High School Certificate*: Valid for one year. This certificate is granted to an applicant who has taught successfully not less than one year and who has completed four years of standard college work or its equivalent, including at least 18 quarter hours in education for the first certificate and 7½ additional hours in education for each succeeding certificate or renewal.

3. *Junior High School Certificate*: Valid for one year. This certificate is issued to an applicant who files evidence of having completed three years of standard college or normal school work or its equivalent above the high school, including the educational subjects required for high school diplomas.

## PAINTING

These courses are intended for those who desire to become proficient in portraiture, figure painting, mural painting or landscape. The students should devote as much of their time as possible to the work in which they intend to specialize.

Freshman Year:		Three quarters	
		Credits	
Art 5A Free hand drawing,			
1, 2, 3 .....	6		
5I, Perspective, 1, 2, 3 .....	3		
5J Composition 1, 2 .....	2		
5E Modeling 1, 2, 3 .....	6		
4 History of Art a, b, c .....	9		
Sophomore Year:			
Art 5B Free hand drawing			
1, 2, 3 .....	9		
5J Composition 3 .....	1		
7 Anatomy a, b, c .....	3		
		27K Historic Ornament .....	6
		3 Art Appreciation, Landscape	
		Painting .....	1
		Junior Year:	
		5C Painting 1, 2, 3 .....	15
		5K Illustration 1, 2, 3 .....	6
		5J Composition 3 .....	1
		Landscape .....	
		8 Aesthetics .....	5
		Senior Year:	
		5 D Painting 1, 2, 3, .....	15
		5J Composition 3 .....	1
		Landscape .....	

## ILLUSTRATION

The development of modern illustration in commercial as well as in literary fields has resulted in a great demand for artists who qualify in this line of art.

The purpose of these courses is to give the student a thorough training in the field of illustration.

Freshman Year:		Three quarters	
		Credits	
Art 5A Free hand drawing,			
1, 2, 3 .....	6		
5 K Illustration 1, 2 .....	4		
27G Lettering .....	2		
5I Perspective 1, 2, 3 .....	3		
5J Composition, 1, 2 .....	2		
7 Anatomy, a, b, .....	2		
Sophomore Year:			
Art 5B Free hand drawing,			
1, 2, 3 .....	9		
5K Illustration 3 .....	5		
		27K History of Ornament .....	6
		5J Composition 3 .....	1
		5E Modeling 1, 2, 3 .....	6
		7 Anatomy c .....	1
		Junior Year:	
		Art 5c Painting, 1 .....	5
		5L Advertising illustration 1, 2, 4	
		4 History of Art .....	9
		Senior Year:	
		Art 5 D Drawing .....	15
		5M Poster Composition and	
		Design .....	15
		8 Aesthetics .....	5

## SCULPTURE

The following courses are intended for those who desire to become sculptors or modelers of architectural ornamental details.

Three quarters		Junior Year:		Credits
Freshman Year:	Credits	Art 5G Modeling 1, 2, 3, .....		
Art 5E Modeling 1, 2, 3.....	6	5D Drawing 1, 2, 3 .....		15
5A Free hand drawing 1, 2, 3....	6	7 Anatomy a, b, c .....		3
5I Perspective 1, 2, 3.....	3	27J Architectural Composition....		6
4 History of Art a, b, c.....	9	8 Aesthetics .....		5
Sophomore Year:		Senior Year:		
Art 5F Modeling 1, 2, 3 .....	9	5H Modeling 1, 2, 3 .....		15
5B Free hand drawing 1, 2, 3....	9	27G Lettering .....		2
5J Composition 1, 2, 3.....	3	5K Illustration c .....		2
27K History of Ornament De- signing .....	6			

## HOME ECONOMICS

Suggested grouping of subject matter for four year course leading to Degree of Bachelor of Science in Home Economics.

Freshman Year		I	II	III	Sophomore Year:			
Chemistry 1 .....		5	5		Chemistry 3 (Organic Chemistry) .....		4	4
(Inorganic Chemistry)					Bacteriology .....			5
Botany 1 or Zoology 1....				5	Chemistry 7 .....			5
Physics 1 or Physio- logy 1 .....		3	3		Physiology or Physics ....		3	3
English 5 .....		3			Foods 2 .....		4	4
English 7 .....			3	3	Textiles 2 .....		3	3
Art 1, 21, 2.....		2	2	2	Economics 1 .....		3	3
Textiles, 1.....		2	2	2	Physical Ed. 12 .....		1	1
House. Ad. 1 .....		1	1	1			17	17
Physical Ed. II.....		1	1	1			17	17
		17	17	14				

## Junior and Senior Years.

All students must complete the group requirements for graduation (major subject 24 hours; minor 18 hours, to include work in both departments other than department in which major work is done; exact science 18 hours; biological science 18 hours; social science 18 hours; language 24 hours; special group chosen under direction of School Director 18 hours), together with sufficient additional work to make a total of 180 hours exclusive of the required work in Physical Education.

## Teachers Under the Smith-Hughes Act.

To qualify as teachers under the Smith-Hughes Act, students must include all of the work outlined above for the Freshman and Sophomore years and complete the requirements for graduation with a major in either Foods or Textiles. They must elect Household Administration 22 (Home Furnishing and Decoration) H. A. 23 (Housewifery) with 6 weeks residence in Practice Home, H. A. 25 (Mothercraft and Child Welfare), Education 20 and 21 (Special methods and supervised Practice Teaching in a Smith-Hughes High School) together with sufficient additional educational subjects to meet the Utah State Board of Education requirements (27) hours for the State High School certificate.

## SUGGESTED COURSES IN COMMERCE AND BUSINESS ADMINISTRATION

The field of commerce or business is now so large that it is impossible for any person to become proficient in all of its branches. However the business world recognizes several well defined professions or vocations for which trained men and women are always in demand. It is the aim of the School of Commerce and Business Administration to give the student a thorough grounding in the fundamentals of economics and business and then to give him special training that will prepare him to enter one of these recognized business callings. The following schedules of courses have been carefully worked out to guide the student in preparing himself for the vocation he desires to follow. These courses are not prescribed but the student who follows them will find at the end of his college career that he has a broad and thorough training. Furthermore, the student who enters college, selects the work he desires to do in life and prepares himself definitely for it has a great advantage over the student who goes through college without any definite objective.

### SUGGESTED GENERAL FRESHMAN AND SOPHOMORE COURSE

Quarter Credits				Quarter Credits			
Freshman Year:				Sophomore Year:			
	I	II	III		I	II	III
Business English (Eng. 7-1) .....	3	3	3	Principles of Business (Bus. Ad. 1) .....	3	3	
General Economics (Economics 1) .....	3	3	3	Municipal Government (Pol. Sci. 2) .....			3
Bookkeeping Technic (Accounting 1a) .....	4			Econ. Development of U. S. (Econ. 3) .....	3	3	
Principles of Accounting (Acct. 2) .....		4	4	Language Group .....	3	3	3
History or Political Science .....	3	3	3	Exact Science Group .....	3	3	3
Exact Science Group .....	3	3	3	Biology Group .....	3	3	3
				Elective .....			3

### SUGGESTED SPECIALIZED COURSE IN ACCOUNTING

Quarter Credits				Quarter Credits			
Junior Year:							
	I	II	III				
Office Management (Office Mgt. 4) .....	3			4) or Scientific Mgt. (Bus. Ad. 5) .....	3		
Income Tax Accounting (Acct. 10) .....		4		Income Tax Accounting (Acct. 10) .....		4	
Accts. of Bldg. & Loan Ass'ns., Banks and Trust Co. (Acct. 3a) ..			4	Accts. of Bldg. & Loan Ass'ns., Banks and Co. (Acct. 3a) ..			4
World Politics (Pol. Sci. 10) .....	3	3		Commercial Law (Pol. Sci. 5) .....	3	3	
Psychology of Advert. & Selling (Mkt. 1), Advertising (Mkt. 2) and Salesmanship (Mkt. 3) ..	3	3	3	Money (Econ. 6) or Public Finance (Econ. 9) ..	3		
Geography of Commerce (Mkt. 7) .....			3	Banking (Econ. 7) or Taxation (Econ. 10) ..		3	
Language Group .....	3	3	3	Banking Practice (Econ. 8) or Statistics (Bus. Ad. 8) .....			3
Biology Group .....	3	3	3	History of U. S. (Hist. 13c) or Labor Problems (Econ. 5) .....			3
Senior Year:	I	II	III	Language Group or Sociology (Soc. 1, 2, 3) ..	3	3	
Auditing (Acct. 6) .....	4	4	4				
Office Mgt. (Office Mgt. 4) .....							



**SUGGESTED SPECIALIZED COURSE IN BANKING**

	Quarter Credits				Quarter Credits		
	I	II	III		I	II	III
<b>Junior Year:</b>				<b>Rural Sociology (Soc. 1),</b>			
Psychology of Advert. & Selling (Mkt. 1) & Advertising (Mkt. 2) and Salesmanship (Mkt. 3) 3		3	3	Principles of Sociology (Soc. 2), Applied Sociology (Soc. 3).....3	3		3
Agricultural Commerce (Mkt. 4), Marketing of Farm Products (Mkt. 5), Cooperation in Agriculture (Mkt. 6).....3		3	3	Auditing (Acct. 6) or Language Group .....3	3		3
Commercial Law (Pol. Sci. 5) .....3		3		Scientific Management (Bus. Ad. 5) or Commerce and Commercial Policies (Econ. 11).....3			
Labor Problems (Econ. 5) .....3			3	Taxation (Econ. 10) or Income Tax Acct. (Accounting 10) .....3			
Language Group .....3	3	3		Geography of Commerce (Mkt. 7) or Credits and Collections (Bus. Ad. 2) .....3			3
Biology Group .....3	3	3		Statistics (Bus. Ad. 8) or Labor Problems (Econ. 5) .....3			3
<b>Senior Year:</b>	I	II	III	Elective .....3	3		
Money (Econ. 6) Banking (Econ. 7), Banking Practice (Econ. 8).....3		3	3				

**SUGGESTED SPECIALIZED COURSE IN BUSINESS ADMINISTRATION**

	Quarter Credits				Quarter Credits		
	I	II	III		I	II	III
<b>Junior Year:</b>				<b>Senior Year:</b>			
Psychology of Advert. & Selling (Mkt. 1) & Advertising (Mkt. 2), Salesmanship (Mkt. 3) 3		3	3	(Bus. Ad. 5) .....3			
Agricultural Commerce (Mkt. 4), Marketing of Farm Products (Mkt. 5) Cooperation in Agriculture (Mkt. 6) .....3		3	3	Statistics (Bus. Ad. 8) or Geog. of Commerce (Mkt. 7) .....3			3
Commercial Law (Pol. Sci. 5) .....3		3		Money (Econ. 6) or Public Finance (Econ. 9).....3			
Labor Problems (Econ. 5) .....3			3	Banking (Econ. 7) .....3		3	
Language Group or History .....3	3	3		Taxation (Econ. 10) or Income Tax Acct. (Accounting 10) .....3		3	
Biology Group .....3	3	3		Rural Sociology (Soc. 1), Principles of Sociology (Soc. 2), Applied Sociology (Soc. 3) .....3	3		3
Commerce and Com'l. Policies (Econ. 11) or Scientific Management				Auditing (Acct. 6) or Language Group .....3	3		3
				Credits and Collections (Bus. Ad. 2) .....3			3
				Elective .....3	3		3

**SUGGESTED SPECIALIZED COURSE IN MARKETING**

	Quarter Credits				Quarter Credits		
	I	II	III		I	II	III
<b>Junior Year:</b>				<b>Senior Year:</b>			
Psychology of Advert. and Selling (Mkt. 1), Advertising (Mkt. 2), Salesmanship (Mkt. 3) 3		3	3	Advanced Business English (Mkt. 9) .....2		2	2
Agricultural Commerce (Mkt. 4), Marketing of Farm Products (Mkt. 5), Cooperation in Agriculture (Mkt. 6).....3		3	3	Advanced Advert. and Selling (Mkt. 8) .....3		3	3
Commercial Law (Pol. Sci. 5) .....3		3		Commerce and Commercial Policies (Econ. 11) .....3			
Labor Problems (Econ. 5) .....3			3	Advertising Art .....1		1	1
Language Group .....3	3	3		Money (Econ. 6), Banking (Econ. 7), Banking Practice (Econ. 8) .....3		3	3
Biology Group .....3	3	3		Public Finance (Econ. 9), Taxation (Econ. 10), and either Statistics (Bus. Ad. 8) or Geography of Commerce (Mkt. 7) .....3		3	3
Advertising Art .....1	1	1		Elective .....3		3	3

# SUGGESTED SPECIALIZED COURSE TO TRAIN MANAGERS OF COOPERATIVE INSTITUTIONS

	Quarter Credits				Quarter Credits		
	I	II	III		I	II	III
<b>Freshman Year:</b>							
General Economics (Econ. 1) .....	3	3	3	(Bus. Ad. 1) .....	3		3
Business English (Eng. 7-1) .....	3	3	3	Economic Development of U. S. (Econ. 3) .....	3		3
Agriculture (Two basic courses) .....	6	6	6	Credits and Collections (Bus. Ad. 2) .....			3
Exact Science Group .....	3	3	3	Labor Problems (Econ. 5) .....			3
				Biology Group or History or Political Science .....	3	3	3
<b>Sophomore Year:</b>	I	II	III				
Bookkeeping for Cooperative Institutions (Acct. 1c) .....	4			<b>Senior Year:</b>	I	II	III
Principles of Accounting (Acct. 2) .....		4	4	Psychology of Advertising and Selling (Mkt. 1) Advertising (Mkt. 2), Salesmanship (Mkt. 3) .....	3	3	3
Language Group .....	3	3	3	Money (Econ. 6), Banking (Econ. 7), Banking Practice (Econ. 8) .....	3	3	3
Biology Group .....	3	3	3	Commercial Law (Pol. Sci. 5) .....	3		3
Exact Science Group .....	3	3	3	Statistics (Bus. Ad. 8) .....			3
Agriculture (One basic course) .....	3	3	3	Office Management (Office Mgt. 4) or Scientific Management (Bus. Ad. 5) .....	3		3
				Taxation (Econ. 10) or Income Tax Accounting (Acct. 10) .....		3	
<b>Junior Year:</b>	I	II	III	United States History (History 13c) .....			3
Elements of Agricultural Economics (Ag. Ec. 7) 3				Language Group .....	3	3	3
Principles of Sociology (Soc. 2), Applied Sociology (Soc. 3) .....		3	3				
Agriculture Commerce (Mkt. 4), Marketing of Farm Products (Mkt. 5), Cooperation in Agriculture (Mkt. 6) .....		3	3				
Principles of Business							

# SUGGESTED SPECIALIZED COURSE IN SECRETARIAL WORK

	Quarter Credits				Quarter Credits		
	I	II	III		I	II	III
<b>Freshman Year</b>				Art (Lettering) .....	1	1	1
Business English (Eng. 7-1) .....	3	3	3	Biology Group .....	3	3	3
Typewriting 1 .....	1	1	1	Exact Science Group .....	3	3	3
Stenography 1 .....	4	4	4				
Office Appliances (Office Mgt. 1) .....	1	1	1	<b>Senior Year:</b>	I	II	III
Bookkeeping Technic (Accounting 1a) .....	4			Advanced Business English (Mkt. 9) .....	2	2	2
Principles of Accounting (Acct. 2) .....		4	4	Commercial Law (Pol. Sci. 5) .....	3		3
History or Economics .....	3	3	3	Statistics (Bus. Ad. 8) .....			3
				Office Management (Office Mgt. 4) .....	3		
<b>Sophomore Year:</b>	I	II	III	Office Management (Office Mgt. 3) .....		3	
Sociology or Economics .....	3	3	3	Money (Econ. 6) or Public Finance (Econ. 9) .....	3		
Typewriting 2 .....	1	1	1	Banking (Econ. 7) .....			
Stenography 2 .....	4	4	4	Taxation (Econ. 10) .....		3	
Penmanship .....	1	1	1	Labor Problems (Econ. 5) .....			3
Language Group .....	3	3	3				
Biology Group .....	3	3	3	Office Training for Stenographers (Office Mgt. 2) .....	2	2	2
				Accounts of Building and Loan Ass'ns., Banks and Trust Companies (Acct. 3a) or Credits and Collections (Bus. Ad. 2) .....			3
<b>Junior Year:</b>	I	II	III	United States History (History 13) .....	3	3	3
Psychology of Advertising and Selling (Mkt. 1) Advertising (Mkt. 2), Salesmanship (Mkt. 3) .....		3	3				
Municipal Government (Pol. Sci. 2) .....			3				
Journalism (English 25) .....	2	2					
Principles of Business (Bus. Ad. 1) .....	3						

## Departments of Instruction.

1. Accounting and Business Practice.
2. Agricultural Economics.
3. Agricultural Engineering.
  - a. Agricultural Surveying.
  - b. Roads.
  - c. Rural Architecture.
  - d. Rural Sanitation.
4. Agronomy.
5. Animal Husbandry.
  - a. Poultry Husbandry.
6. Art.
  - a. Applied Art.
  - b. Fine Art.
7. Bacteriology and Physiological Chemistry.
8. Botany.
9. Business Administration.
10. Chemistry.
11. Correspondence Studies.
12. Dairy Husbandry.
13. Economics.
14. Education and Pedagogy.
15. English.
16. Entomology.
17. Farm Management.
18. Farm Management, Extension.
19. Farm and Auto Mechanics.
20. Foods and Dietetics.
21. Geology.
22. History.
23. Home Management, Extension.
24. Horticulture.
25. Household Administration.
26. Irrigation and Drainage.
27. Junior Extension.
28. Library Economy.
29. Marketing.
30. Mathematics.
31. Mechanic Arts.
  - a. Forging and General Blacksmithing.
  - b. Machine and Automobile Work.
  - c. Mechanical Drawing.
  - d. Woodwork and House-building.
32. Methods in Experimentation.
33. Military Science and Tactics.
34. Modern Languages and Latin.
35. Music.
36. Physical Education.
  - a. For Men.
  - b. For Women.
37. Physics.
38. Physiology.
39. Political Science.
40. Public Speaking.
41. Range Management.
42. Rural Public Health.
43. Sociology.
44. Stenography and Typewriting.
45. Textiles and Clothing.
46. Veterinary Science.
47. Zoology.

**RECITATION TABLE**

The recitation hours are sixty minutes in duration and begin at 8.00 a.m. The following shows the entire schedule:

1 hour,	8:00— 9:00
2 hour,	9:00—10:00
3 hour,	10:00—11:00
4 hour,	11:00—12:00
5 hour,	12:00— 1:00
6 hour,	1:00— 2:00
7 hour,	2:00— 3:00
8 hour,	3:00— 4:00
9 hour,	4:00— 5:00

From 11:30 a.m. to 1:30 p.m., the cafeteria is open.

On Mondays, the sixth period (from 1:00 to 2:00) is devoted to chapel exercises, on Wednesdays to Student Body meetings and on Fridays this period is left open for miscellaneous meetings.

# Courses of Instruction.

## ACCOUNTING AND BUSINESS PRACTICE.

PROFESSOR P. E. PETERSON.

ASSISTANT PROFESSOR THAIN.

PROFESSOR BROSSARD.

MR. ———

### VOCATIONAL COURSES.

These courses aim to develop the students within a short time to assume positions as bookkeepers and office employees. Thorough drill in principles and abundant practice in the making of entries in modern books of account and in the preparation of statements are given.

Accounting practice periods extend through the seventh, eighth and ninth hours daily. As far as possible, students should arrange to register in sections.

a. ELEMENTARY BOOKKEEPING. Thorough drill in the principles of double entry and in the preparation of financial statements. Two lectures and six hours practice work each week. Four credits.

Sec. 1 Fall quarter.

Lec. T. S. 11:00

Lab. Sec. 1, M. W. F. 3:00 to 5:00; Sec. 2, T. Th. 2:00 to 5:00.

*Assistant Professor Thain.*

Sec 2 Winter quarter.

Lec. M. W. 3:00.

Lab. Sec. 1, T. Th. F. 3:00 to 5:00; Sec. 2, M. W. 2:00 to 5:00.

*Professor Peterson.*

b. INTERMEDIATE BOOKKEEPING. A continuation of Accounting "a." Bookkeeping for a wholesale business. Emphasis is laid on labor saving devices and analysis of statements. Two lectures and six hours practice each week. Winter and Spring quarters. Four credits each quarter.



Lec. T. S. 11:00.

Lab. Sec. 1, M. W. F. 3:00 to 5:00. Sec. 2, T. Th. 2:00 to 5:00.

*Assistant Professor Thain.*

c. ADVANCED BOOKKEEPING. Partnership and corporation accounting, involving some of the more technical problems of each. The course opens with accounting for a large wholesale concern but later leads into accounting for a factory. Fall, Winter and Spring quarters. Four credits each quarter.

Lec. T. Th. 3:00; lab. M. W. 2:00 to 5:00.

*Assistant Professor Thain.*

### JUNIOR COLLEGE COURSES.

One of the results of recent commercial development has been the growth in importance of accounts to business men. A knowledge of accountancy is indispensable. Business efficiency and scientific management demand that accountants be more than mere bookkeepers. Men claiming professional standing in the accounting profession must be men of broad, fundamental training in the arts and sciences as well as in the technic of their profession.

1a. BOOKKEEPING TECHNIC. Many students who enter college have had no previous training in bookkeeping. This course is intended to prepare such students to take Accounting 2, Principles of Accounting. Two lectures and six practice periods. Four credits.

Sec. 1 Fall quarter.

Lec. T. F. 2:00.

Lab. Sec. 1 T. Th. F. 3:00 to 5:00. Sec. 2 M. W. 2:00 to 5:00.

Sec. 2 Winter quarter.

Lec. M. W. 3:00.

Lab. Sec. 1 M. W. F. 3:00 to 5:00. Sec. 2 T. Th. 2:00 to 5:00.

*Professor Peterson.*

1b. FARM BOOKKEEPING. (Farm Management 1) Principles of bookkeeping with special application to the farm. Two lectures, six hours practice work. Practice periods to be arranged with instructor for any day between two and five. Winter quarter. Four credits.

Lec. T. Th. 1:00.

*Assistant Professor Thain*

1c. BOOKKEEPING FOR COOPERATIVE INSTITUTIONS. A study of the principles of bookkeeping as applied to cooperative enterprises, such as creameries, grain elevators, livestock and fruit shipping associations. Two lectures. Practice periods to be arranged with instructor. Fall quarter. Four credits.

Lec. T. Th. 1:00.

*Assistant Professor Thain.*

1d. SHOP ACCOUNTING. A study of the fundamentals of bookkeeping technic and their application to conditions found in the small shop and in contract work. Two lectures, six hours practice work. Practice hours to be arranged with instructor. Spring quarter. Four credits.

Lec. T. Th. 1:00.

*Assistant Professor Thain.*

2. PRINCIPLES OF ACCOUNTING. For Freshmen. A careful study of principles with sufficient practice to give proficiency in the handling of accounts. Designed to meet the needs of general business students. Two lectures and six practice hours. Winter and Spring quarters. Four credits each quarter.

Lec. T. F. 2:00.

Lab. Sec. 1 T. Th. F. 3:00 to 5:00. Sec. 2 M. W. 2:00 to 5:00.

*Professor Peterson.*

5. ACCOUNTING PRACTICE AND PROCEDURE. For Sophomores. A study of the principles of valuation of assets, depreciation, principal and interest in valuations, surplus, reserves, consolidations and mergers and consolidated balance sheets. Two lectures and six practice periods. Fall and Winter quarters. Four credits each quarter. (Not given 1921-22.)

*Professor Peterson.*

SENIOR COLLEGE COURSES.

3a. ACCOUNTS OF BUILDING AND LOAN ASSOCIATIONS, BANKS AND TRUST COMPANIES. Practical course in the organization, business practice and accounting methods of building and loan associations, banks and trust companies. Special attention will be given to labor saving methods and appliances. Prerequisite, Accounting 2 or its equivalent. Spring quarter. Four credits.

Lec. W. F. 10:00; lab M. W. Th. 3:00 to 5:00.

*Assistant Professor Thain.*

3b. INSURANCE AND INSURANCE ACCOUNTS. Functions of life-insurance, premiums, reserves, types of policies, special benefits and insurance accounting. Fire insurance. Prerequisites, Economics 1 and Accounting 2. Four credits. (Not given 1921-22.)

*Professor Peterson.*

3c. RETAIL AND DEPARTMENT STORE ACCOUNTS. (Not given 1921-22.)

*Professor Peterson*

3d. PUBLIC SERVICE CORPORATION ACCOUNTS. Study of accounts of railway stations, steam and electric railways, telephone and electric light and power companies. Four credits. (Not given 1921-22.)

*Professor Peterson.*

3c. MUNICIPAL ACCOUNTS. (Not given 1921-22.)

*Professor Peterson.*

4a. COST ACCOUNTING. General theory. Fall quarter. Four credits. (Not given 1921-22.)

*Assistant Professor Thain.*

4b. COST ACCOUNTING. Distribution of overhead and the detail workings of a cost system. Winter quarter. Four credits. (Not given 1921-22.)

*Assistant Professor Thain.*

4c. COST ACCOUNTING. Study of types of systems suitable to different lines of industry. Spring quarter. Four credits. (Not given 1921-22.) *Assistant Professor Thain.*

6. ADVANCED THEORY AND AUDITING. Study of the principles and practice of auditing. For senior students who plan to enter the accounting profession. Two lectures and six practice hours. Fall, Winter and Spring quarters. Four credits each quarter.

Lec. M. W. 2:00.

Lab. Sec. 1, M. W. F. 3:00 to 5:00. Sec. 2, T. Th. 2:00 to 5:00. *Professor Peterson.*

7. HOUSEHOLD ACCOUNTS. (Household Administration 27) The practical application of accounting principles and practice to home management. Two lectures and six practice hours. Spring quarter. Four credits.

Lec. T. Th. 1:00; practice hours at convenience of student any day from 2:00 to 5:00. *Professor Peterson.*

8. FARM COST ACCOUNTING. (Farm Management 3) Application of cost accounting principles to the management of the farm. Prerequisite, Accounting 1a or 1b. Two lectures and six practice hours. Spring quarter. Four credits.

Lec. T. Th. S. 9:00; practice hours to be arranged.

*Professor Brossard.*

9. SEMINAR. Current accounting literature and assigned problems. Open to Juniors and Seniors. One credit. Spring quarter. Time to be arranged.

*Professor Peterson and Assistant Professor Thain.*

10. INCOME TAX ACCOUNTING. A detailed study of the income tax law and the rulings of the treasury department thereon; determination of net taxable income for individuals, part-

nerships and corporations; preparation of tax returns. The excess profits tax law and its application to corporations. Determination of invested capital. Two lectures and six hours practice work a week. Winter term. Four credits.

Lec. W. F. 10:00; practice hours to be arranged with instructor any afternoons between 2:00 and 5:00.

*Assistant Professor Thain.*

### OFFICE MANAGEMENT.

PROFESSOR P. E. PETERSON.

ASSISTANT PROFESSOR THAIN.

MR. HOWELL.

MISS THELMA FOGELBERG.

### JUNIOR COLLEGE COURSES.

1a. CALCULATOR OPERATION. Method of operating calculators. Accuracy and speed secured. Open to Vocational students. Five practice hours each week. Fall or Winter quarter. One credit.

Time to be arranged with instructor.

Fall, Sec. 1. 9:00 daily except Saturday.

Fall, Sec. 2. 10:00 daily except Saturday.

Winter, Sec. 3. 2:00 daily except Saturday.

*Miss Fogelberg.*

1b. CALCULATOR OPERATION. Advanced work on the calculator for increased skill. Accuracy and speed secured. Open to vocational students. Five practice hours each week. Winter or Spring quarter. One credit.

Time to be arranged with instructor.

Winter, Sec. 1. 9:00 daily except Saturday.

Winter, Sec. 2. 10:00 daily except Saturday.

Spring, Sec. 3. 2:00 daily except Saturday.

*Miss Fogelberg.*



1c. **ADDING MACHINE OPERATION.** A study of the use and correct operation of the adding machine. Accuracy and speed secured. Open to vocational students. Five practice hours each week. Fall or Winter quarter. One credit.

Time to be arranged with instructor.

Sec. 1 8:00 daily except Saturday.

Sec. 2. 9:00 daily except Saturday.

Sec. 3. 10:00 daily except Saturday. *Miss Fogelberg.*

1d. **ELLIOTT-FISHER MACHINE OPERATION.** Instruction in the operation of the Elliott-Fisher bookkeeping machine. Open to vocational students. Five practice hours each week. Fall or Winter quarter. One credit.

Time to be arranged with instructor.

Sec. 1. 8:00 daily except Saturday.

Sec. 2 9:00 daily except Saturday.

Sec. 3 10:00 daily except Saturday *Miss Fogelberg.*

## SENIOR COLLEGE COURSES.

2. **OFFICE TRAINING FOR STENOGRAPHERS.** The aim of this course is to furnish students the necessary experience to enable them to take up the duties of an experienced stenographer in an office. Ample practice is given in filing, stenciling and in the use of modern office appliances such as the dictaphone, mimeograph, calculating and bookkeeping machines, and in taking dictation from the various departments of the College. Prerequisites, reasonable proficiency in stenography, typewriting and English 7 (Business English). Fall, Winter and Spring quarters. Two credits each quarter.

Lec. and lab. Th. 2:00 to 5:00.

*Miss Fogelberg.*

3. **DUTIES OF PRIVATE SECRETARIES.** Position defined; meeting callers, handling correspondence, outlines and reports; sources of information; editing and proof reading; handling ap-

pointments; reporting, etc. Prerequisite, reasonable proficiency in stenography and typewriting. Winter quarter. Three credits.

Lec. T. Th. S. 9:00.

*Mr. Howell.*

4. OFFICE MANAGEMENT. Study of office location, layout, equipment and administration; selection and training of employees; office records; filing methods. Prerequisite, Accounting 2 or its equivalent. Fall quarter. Three credits.

Lec. W. F. 10:00; lab. F. 2:00 to 5:00.

*Assistant Professor Thain.*

## AGRICULTURAL ECONOMICS

PROFESSOR BROSSARD.

PROFESSOR WANLASS.

PROFESSOR M. H. HARRIS.

PROFESSOR STEWART.

ASSISTANT PROFESSOR THAIN.

### JUNIOR COLLEGE COURSES.

1. GENERAL ECONOMICS. (Economics 1) After a brief survey of man's economic development, a careful study is made of those fundamental laws and principles that govern our modern economic life. Some attention is also given to present economic problems preparatory to a more intensive study in the advanced courses in this department. Fall, Winter and Spring quarters. Three credits each quarter.

Sec. 1 M. W. F. 8:00.

*Professor Wanlass.*

Sec. 2 M. W. F. 11:00.

*Professor Harris.*

2. FARM BOOKKEEPING. (Farm Management 1) Principles of bookkeeping with special application to the farm. Two lectures, six hours practice work. Practice periods to be arranged with instructor for any day between two and five. Winter quarter. Four credits.

Lec. T. Th. 1:00.

*Assistant Professor Thain.*

3. ECONOMIC DEVELOPMENT OF THE UNITED STATES. (Economics 3). A critical study will be made of the development of agriculture, industry, commerce, transportation, banking, labor organizations, etc., in the United States from the Colonial Period to the present time. Fall and Winter quarters. Three credits each quarter.

T. Th. S. 8:00.

*Professor Harris.*

4. AGRICULTURAL HISTORY. (History 8). Successive steps in the development of modern agriculture with emphasis on the social and scientific phases. Not open to Freshmen. Winter quarter. Three credits.

M. W. F. 11:00.

*Professor Stewart.*

5. AGRICULTURAL STATISTICS. (Business Administration 8). Principles and methods of enumeration, collection, tabulation and usage of agricultural statistical data. Not open to Freshmen. Spring quarter. Three credits.

T. Th. S. 11:00.

*Professor Wanlass.*

#### SENIOR COLLEGE COURSES.

6. RURAL SOCIOLOGY. (Sociology 1.) The principles of sociological science applied to the problems of modern agricultural and rural communities. Winter quarter. Three credits.

T. Th. S. 9:00.

*Professor Harris.*

7. ELEMENTS OF AGRICULTURAL ECONOMICS. (Farm Management 5). Economic principles underlying farm management, land tenure, general farming operations and rural life. Special attention is given to western conditions. Prerequisite, Economics 1 or 2. Fall quarter. Three credits.

T. Th. S. 9:00.

*Professor Brossard.*

8. RURAL CREDITS. A study of the credit needs of farmers and methods of meeting these needs. This involves a study of

the Federal farm land banks, joint stock land banks, cooperative banking and new legislation needed to provide for financing adequately the farming business of the country. Winter quarter. Three credits.

M. W. F. 9:00.

*Professor Brossard.*

9. MARKETING OF FARM PRODUCTS. (Marketing 5). Principles of marketing and problems involved in marketing livestock, grains, potatoes, hay, dairy and poultry products, etc. Prerequisite, Economics 1 or 2. Winter quarter. Three credits.

M. W. F. 9:00.

*Proessor Wanlass.*

10. COOPERATION IN AGRICULTURE. (Marketing 6) General principles of cooperation. Problems involved in the organization and management of cooperative creameries, cheese factories, canning factories, livestock shipping associations, insurance companies, etc. Prerequisite, Economics 1 or 2. Spring Quarter. Three credits.

M. W. F. 9:00.

*Professor Wanlass.*

11. FARM MANAGEMENT. (Farm Management 2). A study of the problems involved in choosing, buying, planning, organizing and managing a farm; in determining the proper size, balance, diversity and quality of farm business; in combining economically livestock, crops, pasture and ranges; and in using, efficiently, equipment and man and horse labor. Prerequisites, Economics 1 or 2, Animal Husbandry. 1 or 3a, Agronomy 1a (or equivalent) and Agronomy 6. Winter quarter. Three credits.

T. Th. S. 9:00.

*Professor Brossard.*

12. FARM COST ACCOUNTING. (Farm Management 3) Enterprise cost accounts and complete farm cost accounts. Special emphasis is given to the analysis and interpretation of results and their application in the organization and management

of the farm. Prerequisite, Agricultural Economics 2. Spring quarter. Three credits.

T. Th. S. 9:00.

*Professor Brossard.*

13. RESEARCH. Special investigations of problems in Agricultural Economics. Only those senior and graduate students who present an acceptable plan for an investigation will be admitted. Credit will be granted according to the work done.

Time to be arranged.

*Professor Brossard.*

## AGRICULTURAL ENGINEERING.

### AGRICULTURAL SURVEYING.

PROFESSOR RAY B. WEST.

#### JUNIOR COLLEGE COURSES.

1a. FARM SURVEYING. For students of agriculture. Practice in the handling of surveying instruments that may be purchased by the average farmer. Running of ditch lines, grading and leveling of land, retracting of section lines and the laying out of drains. Spring quarter. Three credits.

Lec. F. 12:00; lab. M. W. 2:00 to 5:00. *Professor West.*

1. SURVEYING FOR AGRICULTURAL ENGINEERING STUDENTS. This is a more thorough course than course 1a, and covers in addition to the above a study of the instruments generally used by engineers, topographic surveying, hydrographic surveying and some mine and city surveying. Prerequisite, Trigonometry. Fall and Spring quarters.

Lec. T. 1:00; lab. T. Th. 2:00 to 5:00. *Professor West.*

3. SOIL AND OTHER AGRICULTURAL SURVEYS. The methods of preparing maps of a given agricultural area and surveys of the various agricultural interests within the area. Any quarter. Three credits. (Not given 1921-22.) *Professor West.*



4. MAPPING. Practice in the mapping of the various kinds of surveys that may be encountered by the agricultural engineer. Winter quarter. Three credits.

Lab. M. W. F. 2:00 to 5:00.

*Professor West.*

#### SENIOR COLLEGE COURSE.

2. CANAL AND ROAD SURVEYING. Instruction and practice in the application of the surveying methods used in the laying out and construction of canals and roads. Prerequisite, Surveying 1. Open to Junior College students. Fall quarter. Five credits.

Lec. T. Th. S. 8:00; lab. M. W. 2:00 to 5:00.

*Professor West.*

#### ROADS.

PROFESSOR RAY B. WEST.

PROFESSOR WILLIAM PETERSON.

#### JUNIOR COLLEGE COURSES.

1. ROAD CONSTRUCTION. Road location, grade, drainage, resistance to traction, road materials, construction methods and costs of all kinds of roads. Fall quarter. Five credits.

Daily except Thursday at 11:00.

*Professor West*

2. ROAD MATERIALS. (Engineering Geology). Dynamical and structural geology as it applies to construction work. Special attention is given to materials affecting road construction, dams and excavations. Winter quarter. Five credits.

Daily except Thursday at 11:00.

*Professor Peterson.*

3. HIGHWAY STRUCTURES. Study of highway structures, principally bridges and culverts, but including catch basins, drains, fences, etc. Three credits.

Hours to be arranged.

*Professor West.*

4. INSPECTION OF ROAD CONSTRUCTION. A study of a road inspector's duties on all types of road and pavement construction. Three credits. Spring quarter.

M. W. F. 11:00.

*Professor West.*

#### SENIOR COLLEGE COURSES.

5. ROAD MAINTENANCE. Road organizations, employment of labor, cost of maintenance, width of tires, size of wheels, maintaining drainage, repairing worn surfaces, comparison of different road machines, etc. Two credits. Spring quarter.

T. S. 11:00.

*Professor West.*

#### RURAL ARCHITECTURE.

PROFESSOR RAY B. WEST.

PROFESSOR FLETCHER.

#### SENIOR COLLEGE COURSE

1. FARM STRUCTURES. The arrangement, design and construction of barns, stables, poultry houses, silos and other farm structures. Winter quarter. Three credits.

M. W. F. 11:00.

*Professor West.*

3. MATERIALS OF CONSTRUCTION. The chemistry of iron, steel, the alloys, etc., and their special use in machine parts; strength, composition and proper use of the woods, plaster, glass, glue, paints, cement, brick, etc., in building. Fall quarter. Five credits.

Daily except Thursday 10:00.

*Professor West*

5. CONCRETE CONSTRUCTION FOR AGRICULTURAL PURPOSES. Various mixtures of cement and their uses; the use of concrete in the making of barns, water troughs, posts, etc. Spring quarter. Three credits.

Hours to be arranged.

*Professor West.*

8. PLANNING OF FARM STRUCTURES AND HOMES. The making of plans for farm buildings, including complete specifications, costs of materials and erection. Hours to be arranged. (Not given in 1921-22.) *Professor West.*

9. HOUSE BUILDING AND CONTRACTING. Various methods of construction; the frame, two brick, three brick, stucco, shingle, cement block and stuccoed hollow tile; cost and economy of each; interior finishing. Spring quarter. Five credits. Daily, except Thursday 10:00. *Professor West*

#### SENIOR COLLEGE COURSES.

4. MECHANICS OF FRAMED STRUCTURES... The strength and the design of joints in timber framing. Holding power of nails, screws, drift bolts, etc. Design of beams, columns and simple trusses in wood. Prerequisites, plane trigonometry and physics. Daily, except Thursday 10:00. *Professor West*

6. REINFORCED CONCRETE. 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. (Not given in 1921-22.) *Professor West.*

10a. RURAL ARCHITECTURE. Architectural composition. Study of the principles of composition as applied to buildings, emphasis being put on correction of common errors in the design of elevations. For related work see Art 24 and Horticulture 8. Open to Junior College students. Ten studio hours. Fall quarter. Three credits. Hours to be arranged. *Professor Fletcher.*

10b. ARCHITECTURAL COMPOSITION. Continuation of course 10a with special attention to the relation of all the parts of the exterior and architectural effect in environment. For re-

lated work see Art 24 and Horticulture 8. Prerequisite, Rural Architecture 10a. Open to Junior College students. Ten studio hours. Winter quarter. Three credits.

Hours to be arranged.

*Professor Fletcher.*

11. STYLES IN ARCHITECTURE. Study of the great styles or periods of architecture with special attention to those phases most vital to an understanding of modern building. Open to Junior College students. Ten studio hours. Spring quarter. Three credits.

Hours to be arranged.

*Professor Fletcher.*

### RURAL SANITATION.

PROFESSOR GREAVES.

PROFESSOR RAY B. WEST.

ASSISTANT PROFESSOR CARTER.

### JUNIOR COLLEGE COURSE

2. PARASITOLOGY. (Zoology 5). The classification, morphology and life history of animal parasites. The disease-producing protozoans, flukes, tapeworms and round worms receive special study. Arthropods as external parasites and carriers of pathogenic organisms receive attention. Fall quarter. Four credits.

Lec. T. Th. S. 9:00; lab. M. 2:00 to 5:00. *Mr. ———*

### SENIOR COLLEGE COURSES.

3. SANITATION (Bacteriology 8). Principles of sanitation; nature of disease, its spread and means of prevention and disinfection; sanitary arranging and construction of farm buildings. Prerequisite, Bacteriology 1. Winter and Spring quarters. Three credits each quarter.

T. Th. S. 11:00.

*Professor Greaves.*

4. SANITARY ANALYSIS. (Bacteriology 6). Methods used by the sanitary inspector in examining water, milk and other

foods. Prerequisites, Chemistry 6 and Bacteriology 1 or 2. Breakage deposit \$2.50.

Time and credit to be arranged.

5. DAIRY BACTERIOLOGY. (Lecture) (Bacteriology 5a). The bacteria of milk, butter and cheese; communicable diseases in their relation to the dairy; contamination by air, water, utensils; desirable and undesirable fermentation. Winter quarter. Two credits.

T. Th. 8:00.

*Assistant Professor Carter.*

6. RURAL WATER SUPPLY AND WASTE DISPOSAL. Methods of (a) supplying farm and rural communities with sanitary water; (b) handling waste of the farm and small town. Spring quarter. Three credits.

T. Th. S. 8:00.

*Professor West.*

7. DAIRY BACTERIOLOGY. (Laboratory) (Bacteriology 5b). Methods used in the bacteriological examination of milk and dairy products. May accompany Dairy Bacteriology 5. Breakage deposit, \$2.50. Winter quarter. Three credits.

Lab. M. W. F. 2:00 to 5:00.

*Assistant Professor Carter.*

8. SANITARY STATISTICS. (Bacteriology 9). Vital statistics showing the effects of sanitary precautions upon health in cities and rural communities. Fall quarter. Two credits.

T. Th. 8:00.

*Assistant Professor Carter.*

## AGRONOMY.

PROFESSOR STEWART.

ASSISTANT PROFESSOR PITTMAN.

MR. BRACKEN.

MR. ———

MR. HEYWOOD.

Note.—Students who major in Agronomy are required to take courses 1, 2 or 3, 6, 8 or 9, and 12. Irrigation 1 and Farm Management 2 will be accepted toward a major in Agronomy.



## VOCATIONAL COURSES.

a. ELEMENTARY AGRONOMY. Practical information on crops and soils for short practical-course students. Winter quarter. Four credits.

Lec. M. W. F. 11:00; lab. M. 2:00 to 5:00.

*Mr. Bracken and Mr.-----*

b. DRY-FARMING. The methods best adapted to the growing of profitable crops on arid lands; the treatment of the soil; the soils and crops best adapted to arid farming; the regions offering favorable conditions for its successful practice. Not given unless ten students apply. Winter quarter. Three credits.

T. Th. S. 10:00.

*Mr. Bracken.*

## JUNIOR COLLEGE COURSES.

1. CEREAL CROPS. The history, cultivation, production and marketing of cereal crops; a basis for judging and grading plant products. Must be preceded or accompanied by Chemistry 1 and Botany 2. Winter quarter. Four credits.

Lec. M. W. F. 9:00; lab. T. 2:00 to 5:00.

*Professor Stewart and Mr. Heywood.*

2. ROOT CROPS. Sugar-beets, potatoes, mangels, turnips, other root crops and beans. Cultural methods, market types and commercial possibilities are studied in detail. Must be preceded or accompanied by Chemistry 1 and Botany 2. Fall quarter. Four credits.

Lec. M. W. F. 9:00; lab. T. 2:00 to 5:00.

*Professor Stewart and Mr. Heywood.*

3. FORAGE AND MISCELLANEOUS CROPS. Alfalfa, clovers, grasses and other crops. Methods of handling hay, meadow and pasture management and soiling crops are discussed. Must be

preceded or accompanied by Chemistry 1 and Botany 2. Spring quarter. Four credits.

Lec. M. W. F. 9:00; lab. T. 2:00 to 5:00.

*Professor Stewart and Mr. Heywood.*

### SENIOR COLLEGE COURSES.

1a. CROP PRODUCTION. Essentials in the production of principal field crops; small-grains, corn, potatoes, sugar-beets, alfalfa and pastures. Designed for students not in the School of Agriculture and for others wishing minimum work in crops. Must be preceded by Chemistry 1 and Botany 1 or 2. Spring quarter. Five credits.

Lec. M. T. W. F. 10:00; lab. F. 2:00 to 5:00.

*Mr.-----*

4. SEEDS AND WEEDS. Seeds and their impurities; quality and preservation of seeds; their storage, shrinkage, vitality, etc.; the common weeds of Utah; methods of identifying and eradicating them; field work. Prerequisites, Botany 2 and Agronomy 1 or 3. Not given unless ten students apply. Fall quarter. Two credits.

Lec. T. 1:00; lab. W. 2:00 to 5:00.

*Mr.-----*

5. JUDGING AND GRADING CROPS. The various methods of scoring grains and other crops; judging crops and identifying varieties; types demanded by the market; grading of market types. Prerequisite, Agronomy 1; Agronomy 2 and 3 and Horticulture 1 preferred. Not given unless ten students apply. Spring quarter. Two credits.

*Mr.-----*

6. SOILS. Review of the entire field of soil study; designed as a foundation course for all students of agriculture. Prerequisite, Chemistry 1 (high school chemistry not adequate). Fall quarter. Four credits.

Lec. M. W. F. 11:00; lab. M. or Th. 2:00 to 5:00.

*Professor Stewart and Assistant Professor Pittman.*

7. COMPARATIVE SOILS. Soils of Utah; their origin, composition and agricultural value; soil provinces of the United States, especially those of the arid regions; the soil survey. Prerequisites, Agronomy 6 and Geology 2. Winter quarter. Two credits.

T. S. 11:00.

*Professor ———*

8. MANAGEMENT OF ARID SOILS. The composition, nature and management of soils of arid regions; special attention to water relations, alkali, rotations, manure, tillage and other problems in the management of arid soils. Prerequisites, Agronomy 6 and Geology 2. Winter quarter. Four credits.

Lec. T. Th. S. 10:00; lab. Th. 2:00 to 5:00.

*Assistant Professor Pittman.*

9. PLANT BREEDING. Varieties of field crops and their adaptation, selection and improvement; attention to the methods of plant breeding as practiced in America and Europe. Prerequisites, Agronomy 1 and 2 or 3; Genetics (Zoology 7); and Botany 2. Spring quarter. Four credits.

Lec. M. W. F. 11:00; lab. M. 2:00 to 5:00.

*Professor Stewart.*

11. ADVANCED LABORATORY IN SOILS. Chemical and mechanical analysis or special laboratory work. Three hours or more, any quarter.

Hours to be arranged.

*Assistant Professor Pittman.*

12. SEMINAR. Current agronomic literature; agricultural problems; assigned topics. Required of Seniors in agronomy; open also to Juniors. Winter quarter. One credit.

Th. 1:00

*Professor Stewart.*

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

*Professor Stewart and Assistant Professor Pittman.*

14. HISTORY OF AGRICULTURE. (History 8). Development of agriculture, with emphasis on social and scientific phases; the successive steps by which modern agriculture has attained its present status. Winter quarter. Two, three or four credits.

M. W. F. 11:00.

*Professor Stewart and Mr. ———*

### ANIMAL HUSBANDRY.

PROFESSOR CARROLL.

PROFESSOR GEORGE B. CAINE.

ASSISTANT PROFESSOR ALDER.

### VOCATIONAL COURSE

c. FEEDING AND MANAGEMENT. A non-technical course dealing with the practice of feeding and management of different classes of livestock. Winter quarter. Five credits.

Daily except Saturday, 9:00.

*Professor Carroll.*

### JUNIOR COLLEGE COURSES.

1. 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. Five credits.

Sec. 1, Fall quarter Lec. T. Th. S. 9:00; lab. W. F. 2:00 to 5:00.

*Professor Caine*

Sec. 2, Winter quarter Lec. M. W. F. 11:00; lab. W. F. 2:00 to 5:00.

*Professor Caine.*

2. BREED TYPES. The origin, history and characteristics of the different breeds of horses, cattle, sheep and swine, es-

pecial stress being laid upon their adaptability to western conditions. Fall quarter. Five credits.

Daily except Th. 10:00.

*Professor Caine.*

3a. PRACTICAL FEEDING. (For students not majoring in Animal Husbandry.) How the animal uses its feed; classes of feeds, compounding rations for different purposes and for different classes of animals. Prerequisites, Agronomy 1 and 3 or 1a. Fall quarter. Five credits.

Daily, except Saturday, 8:00.

*Professor Carroll.*

6. BEEF CATTLE PRODUCTION. The practical methods of beef production, including a consideration of range practice, feeding for market, fitting for show and general care and management. Winter quarter. Three credits.

T. Th. S. 9:00

*Professor Caine.*

7. HORSE HUSBANDRY. Market types, handling of breeding and growing horses, fitting for show and sale and practical methods of handling and training horses. Winter quarter. Three credits.

(Not given 1921-22)

*Professor Caine.*

8. SWINE MANAGEMENT. The management of the breeding herd, fattening for market and fitting for show. Spring quarter. Three credits.

T. Th. S. 9:00.

*Professor Caine.*

9. SHEEP HUSBANDRY. General care on range and farm, fattening for market, fitting for show and work in grading and sorting wool. Spring quarter. Three credits.

(Not given 1921-22.)

*Professor Caine.*

#### SENIOR COLLEGE COURSES.

3. ANIMAL NUTRITION. The anatomy and physiology of the digestive system; the purpose of nutrition; the theory and practice of feeding; with especial reference to Utah conditions.



Prerequisites, Organic Chemistry or Physiology 2 and Agronomy Ia. Winter and Spring quarters. Five credits each quarter.

Daily except Saturday 8:00

*Professor Carroll.*

3b. LABORATORY COURSE. Laboratory work including the actual feeding of different classes of livestock for different purposes can be arranged for a limited number of students.

4. PRINCIPLES OF BREEDING AND HERD BOOK STUDY. An application of the principles of breeding to practical breeding operations; the place of animal breeding on the farm; methods of selection; aids to selection; grading; cross breeding; line breeding; inbreeding; herd books; pedigrees of noted individuals of the important breeds. Prerequisites, Genetics. Spring quarter. Five credits.

Daily except Saturday, 9:00

*Professor Carroll.*

5. ADVANCED STOCK JUDGING. The judging of groups of animals of all classes. Attendance at the State Fair and at all accessible county fairs is required. Prerequisites, Animal Husbandry 1 and 2. Fall quarter. Three credits.

Lab. M. T. Th. 2:00 to 5:00

*Professor Caine.*

10. THE FIELD OF ANIMAL HUSBANDRY. A brief survey of the field of animal husbandry in relation to other branches of agriculture; the economics of the livestock business and a brief consideration of the various opportunities in livestock. Designed as an informational course for students not registered in the School of Agriculture. Fall quarter.

M. W. F. 9:00.

*Professor Carroll.*

20. RESEARCH. Advanced students may elect research work in any phase of animal husbandry. Time and credit to be arranged with the department.

25. SEMINAR. Round table discussions of current literature and special phases of animal husbandry and dairying by ad-

vanced students and instructors of the department. One meeting a week. Time to be arranged.

*Professors Carroll and Caine.*

## POULTRY HUSBANDRY

### VOCATIONAL COURSES.

a. PRACTICAL POULTRY RAISING. A study of the fundamental principles involved in successful poultry raising. Not given unless ten students apply. Winter quarter. Four credits.

Lec. M. W. F. 9:00; lab. W. 2:00 to 5:00.

*Assistant Professor Alder.*

b. SHORT PRACTICAL COURSE. A practical course covering a period of two weeks. The student can spend all day or half the day studying problems of successful poultry raising.

Time to be arranged.

*Assistant Professor Alder.*

### JUNIOR COLLEGE COURSES.

1. GENERAL POULTRY. A study of breeds, judging, breeding, incubation, brooding, housing, feeding and marketing. Winter or Spring quarter. Four credits.

Lec. M. W. F. 11:00; lab. M. 2:00 to 5:00.

*Assistant Professor Alder.*

1a. GENERAL POULTRY. Same as Poultry 1 except that no laboratory work is given. Winter or Spring quarter. Three credits.

M. W. F. 11:00.

*Assistant Professor Alder.*

1b. GENERAL POULTRY. This course is planned to meet the needs of Home Economic students. Not given unless ten students apply. Spring quarter. Two credits.

M. W. 11:00.

*Assistant Professor Alder.*

2. INCUBATION AND BROODING. Practical and experimental work; the factors which influence the hatching quality of eggs

and the raising of chicks. Prerequisite, Poultry 1. Spring quarter. Two credits.

M. W. 9:00.

*Assistant Professor Alder.*

3. POULTRY MANAGEMENT. The housing, care, feeding and management of different breeds under western conditions. Prerequisite Poultry 1. Winter quarter. Two credits.

(Not given 1921-22.)

*Assistant Professor Alder.*

4. BREEDS AND BREEDING. The origin and development of the breeds and varieties of poultry; practice in judging; a review of the literature on breeding for utility and exhibition. Prerequisite, Poultry 1. Winter quarter. Three credits.

Lec. M. W. 10:00; lab. by special arrangement.

*Assistant Professor Alder.*

#### SENIOR COLLEGE COURSES.

25. RESEARCH. Research work in special problems. Prerequisite, Poultry 1. Time and credit to be arranged.

*Assistant Professor Alder.*

26. SEMINAR. Current poultry literature studied; assigned problems and special topics. Winter quarter. One credit.

Time to be arranged.

*Assistant Professor Alder.*

27. POULTRY PRACTICE. Special practice at the poultry yards. Time and credit to be arranged.

*Assistant Professor Alder.*

#### ART DEPARTMENTS.

##### APPLIED ART.

PROFESSOR FLETCHER.

MISS MAURINE PETERSON.

#### JUNIOR COLLEGE COURSES.

21. DESIGN. General principles of design in pattern color, house furnishing and costume. Winter quarter. Two credits.

Sec. a, T. Th. S. 11:00.

*Professor Powell.*

Sec. b, T. Th. S. 8:00.

*Professor Fletcher.*

Sec. c, M. W. F. 11:00.

*Miss Peterson.*

23. EDUCATIONAL COURSE. Survey of design and color as

applied to costume, posters, interior decoration and handwork in the Public Schools. The aim will be to equip the student to use intelligently the Industrial Arts text books. Winter quarter. Three credits.

T. Th. S. 11:00

*Professor Fletcher.*

24. HOME IMPROVEMENT. Design in the architecture of home buildings and grounds. Common errors in the composition of cottage exteriors, interiors and landscape gardens discussed and remedies suggested. For related work see Horticulture 8 and Rural Architecture 10. Spring quarter. Three credits.

Lec. T. Th. 9:00; lab. F. 2:00 to 5:00. *Professor Fletcher.*

26. FURNITURE DESIGN.

Hours and credits arranged as in Art 27.

*Professor Fletcher.*

#### SENIOR COLLEGE COURSES.

22a. (Household Administration 22a) Home furnishing and decoration. The principles of house and garden design, wall decoration, color floor and ceiling treatment, furniture and wood finishing problems. Fall quarter. Four credits.

Lec. T. Th. S. 9:00; lab. Th. or F. 2:00 to 5:00.

*Professor Fletcher.*

22b. HOME FURNISHING. (Household Administration 22b). Textiles and drapery, tableware, pottery, pictures, sculpture, flowers and the assembling of all features which go to make home beautiful. Open to students in the Junior College. Winter quarter. Four credits.

Lec. T. Th. S. 9:00; lab. Th. or F. 2:00 to 5:00.

*Professor Fletcher.*

25. Laboratory course in interior decoration. Any phase of the work desired may be pursued. Intended for the specialist. Credits and time to be arranged.

28. EDUCATIONAL COURSE. For those who want to teach art under the Smith-Hughes plan or in high schools in general. The problems of teaching drawing, the crafts, costume design, interior decoration, commercial design, etc. A knowledge of drawing and design. Three credits.

(Not given 1921-22).

*Professor Fletcher.*

27. STUDIO. Three studio hours each week required for each credit. Time must be selected within the studio time listed and the hours filed with the instructor at the beginning of each term.

Studio hours daily, 2:00 to 5:00 and T. Th. S. 10:00 to 1:00.

*Professor Fletcher and Miss Peterson.*

27a. POTTERY.

1. Elementary building and casting by hand and simple firing and glazing. Two credits.
2. Advanced. Not given 1921-22.

27b. CHINA DECORATION.

1. Designing and decoration of rim plate, coupe plate and salt and peppers with accompanying designs. Two credits.
2. Decoration without outline of tray forms, cups and saucers or equivalent. Two credits.
3. Decoration of vase, sugar and creamer and one special problem. Two credits.
4. Etching—Three pieces of incrustated work of accepted type. Problems must be acceptable to the instructor. Two credits.
5. Enamel—Three problems involving enamel on belleek or satsuma. Two credits.
6. Lustre—Three decorative pieces of lustre of accepted type. Two credits.
7. Painting on glass. Credits and problems arranged.
8. Advanced. Credits and work arranged with instructor.

27c. COOPER WORK.

1. Watch fob, blotting pad, desk pad corners and paper knife. Two credits.
2. Sawed hinges, napkin ring, candle stick sconce. Two credits.
3. Raised bowl, etched tray, inkwell. Two credits.
4. Repousse—Jewel case, crumb tray and letter rack. Two credits.
5. Reading lamp, collar box or casserole with carved decoration. Two credits.
6. Advanced raising—Vases, jardiniers, electric fixtures. Two problems. Two credits.
7. Enameling and jewelring—Three problems. Two credits.

27d. JEWELRY.

1. Pierced brooch or tie pin, pierced brooch with box setting, hat pin, brooch or cuff buttons with wire rims. Two credits.



2. Design and make three brooches with settings using—carving, chasing applied wire, or filigree decoration. Two credits.
3. Cone or round head hat pin, box set ring, scarf pin. Two credits.
4. Pendant necklace or three rings of different type. Two credits.
5. Advanced enameling, filigree, chain making, etc., of advanced form may be pursued, credit being allowed according to the work done.

## 27e. BASKETRY.

## Sewed.

1. Spiral "Lazy Squaw" tray, Poma or Ray Stitch basket. Two credits.
2. Figure 8, Lace stitch baskets. Two credits.
3. Apache stitches and one special problem. Two credits.

## Reed, Willow, etc.

1. Small plain basket, flower basket, fruit basket. Two credits.
2. Lined open work workbasket, mellon basket, covered bowl, tray. Two credits.
3. Large problem as reading lamp. Two credits.

## 27f. LEATHER WORK.

1. Etched mat, pierced bag, dyed scissors or manicure case. Two credits.
2. Tooled purse, card case and wallet or small bag. Two credits.
3. Incised and embossed mat, magazine cover, small problem involving lining. Two credits.
4. Modeled handbag—hued. Two credits.
5. Advanced embossing, tooling and making up may be done, credit allowed according to work done.

## 27g. LETTERING.

## Show Card Writing.

1. Brush strokes. 8 plates, one stroke Egyptian alphabet. Standard old Roman. Two credits.
2. One stroke alphabets, 5 simple cards and 2 finished types. Two credits.
3. Decorative scrolls and layouts. 12 plates. Two credits.
- 4, 5, 6. Decorative initials and various stunts in ornamentation. Practical card work. 36 plates. Two credits each.

## Sign Painting.

1. Same as for show card. Two credits.
2. Standard types in oil and water color. 12 plates. Two credits.
3. Plain painting on glass and simple ornament. 8 plates. Two credits.
- 4, 5. Gold leaf signs. 12 plates. Two credits each.
6. Large signs and poster lettering. Advanced work. Credit arranged.

## Illumination and Engrossing.

1. Mastery of old Roman script and capitals. Two credits.
2. Mastery of two other alphabets with decorative finials, etc. Two credits.
3. Designing Christmas cards, memorials and quotations with black and color. Two credits.
4. Advanced fancy initials, gold illumination and magazine work. Credits to be arranged beforehand with applicant.

## Lettering for illustration.

1. Standard types and spacing. 12 plates. Two credits.

## 27h. FABRIC DECORATION.

1. Stenciling of table runner, pillow cover, curtain or equivalent. Two credits.
2. Block printing on velvet, block printed handbag in color (single color), block printed textile with more than one color block. Two credits.
3. Batik scarf in two colors, Batik with three or more colors, lamp shade or equivalent. Two credits.
4. Advanced work in any of the above processes, also in Japanese embroidery and dyed work. Credit and work arranged.

## 27i. WOOD ORNAMENTATION.

## Enamlac and Scraffito.

1. Ornamentation with enamel of three bottle forms as vases and wooden forms as trays, jewel cases, etc. Two credits.

2. Serving tray, toilet set (comb, brush, tray, etc.) in ivory or celluloid. Two credits.
3. Book ends and letter rack incised, stained. Two credits.
4. Advanced scraffito, jesso inlay, and marqueterie may be taken up. Credits and problems to be arranged.

Pyrography.

1. Designing and burning of two boxes, a shelf, and one selected problem. Two credits.
  2. Advanced work involving staining, etc. Problems selected. Two credits.
- Carving.
1. Care in use of tools, incising and veining and flat work. Two credits.
  2. Roughing in and setting down problems without heavy modeling. Conventional. Two credits.
  3. Simple leaf forms and fruit.
  4. Advanced modeling—credits arranged.

27j. (Rural Architecture 10-11.)

1. Unity, proportion and massing as expressed in plans of simple facades. 6 plates. Two credits.
2. Common errors and composition of cottage facades. 6 plates. Two credits.
3. Composition in details and adjustment of masses in more important building. 6 plates. Two credits.
4. Composition in Egyptian, Assyrian and Greek styles of architecture. 6 plates. Two credits.
5. Roman, Romanesque, Gothic styles of architecture. 6 plates. Two credits.
6. Palladian and modern styles. 6 plates. Two credits.

27k. SPECIAL DESIGN.

For Art Needlecraft.

1. Borders and edges, white work and simple color design. 5 plates. Two credits.
  2. Advanced design for embroidery—credit arranged.
- Costume Design and Illustration. Prerequisite, Textiles 2a and 5b.
1. Advanced practical design from historic costume motifs. 12 plates. Two credits.
  2. Original designs from nature motifs. 12 plates. Two credits.
  3. Details of costume drawing and the draped figure. Two credits.
  4. Advanced work for magazine and catalog layouts and the technic of pen, wash and color work. Credits arranged.

Historic Ornament.

1. Egyptian, Assyrian, Persian and Gothic ornament. 12 plates. Two credits.
2. Greek, Roman and Byzantine ornament. 6 plates. Two credits.
3. Romanesque, Renaissance and French ornament. 6 plates. Two credits.

Commercial Design.

1. Special work in design for manufactured textiles, wall paper, lighting fixtures, etc. may be pursued by application to the head of the department. Credit arranged.

Note: One or more examples of each student's work may be retained by the department but compensation may be allowed for material.

## FINE ART.

PROFESSOR POWELL.

## JUNIOR COLLEGE COURSES.

1. COMPOSITION. Nature analysis and application to design. A study of composition of line and form and the principles of good taste. Prerequisite or parallel to Textiles and Clothing 1. Fall quarter. Two credits.

Sec.a—T. Th. S. 11:00, *Professor Powell*.

Sec. b—T. Th. S. 8:00, *Professor Fletcher*.

Sec. c—M. W. F. 11:00, *Miss Peterson*.

2. ART APPRECIATION. A study of the principles of composition and design and their application to painting, sculpture and architecture. Spring quarter. Two credits.

Sec. a—T. Th. S. 11:00, *Professor Powell*.

Sec. b—T. Th. S. 8:00, *Professor Fletcher*.

Sec. c—M. W. F.--11:00, *Miss Peterson*.

3. HISTORY OF ART AND APPRECIATION. Illustrated lectures and discussions, given so students may gain an acquaintance with painting, sculpture and architecture and develop a taste for the best art. Given if ten or more students apply. Winter quarter. One credit.

T. 1:00

*Professor Powell.*

4a. HISTORY OF ARCHITECTURE. Illustrated lectures and assigned readings covering the development of architecture. Fall quarter. Three credits.

M. W. F. 11:00.

*Professor Powell*

4b. HISTORY OF ART PAINTING. Illustrated lectures and assigned readings on evolution and development of painting.

M. W. F. 11:00.

*Professor Powell.*

4c. HISTORY OF SCULPTURE. Illustrated lectures and assigned readings on the development of sculpture. Spring quarter. Three credits.

M. W. F. 11:00.

*Professor Powell.*

5. STUDIO. Open to all students of the College. The work includes a thorough training in drawing, painting, modeling, perspective and composition. Students may register any quarter and for one or more courses. Credits will be given for the amount of work completed in each course.

Studio daily, 2:00 to 5:00.

*Professor Powell.*

5a.

1. FREEHAND DRAWING. A study of the fundamental principles of movement and proportion. Outline representations of simple objects as exercises in developing the powers of observation and the training of the hand. Six hours a week. Two credits.

2. FREE HAND DRAWING. The study of light and shade. Drawings with pencil, charcoal and ink from objects in groups and from casts of architectural ornaments and parts of the figure. Six hours a week. Two credits.

3. FREE HAND DRAWING. The study of light and shade and values and the representation of the third dimension. Drawings with pencil, charcoal and ink from casts of architectural ornaments and parts of the figure and still life groups. Six hours a week. Two credits.

5b.

1. FREEHAND DRAWING. Drawing in charcoal from casts of parts of the figure. Nine hours a week. Three credits.

2. FREEHAND DRAWING. Drawing in charcoal of reproduction of antique figures. Nine hours a week. Three credits.

3. FREEHAND DRAWING. Charcoal drawing from the antique. Nine hours a week. Three credits.

5c.

1. PAINTING. Drawing with crayons of groups of objects with one or more colors. Five credits.

Daily, 2:00 to 5:00.

2. PAINTING. Painting in oil, water colors or pastels from still life. Five credits.

Daily, 2:00 to 5:00.

3. PAINTING. Painting in oils, water color, or pastels from flowers and fruit studies and still life. Five credits.

Daily, 2:00 to 5:00.

5d.

1. DRAWING from the costumed model. Five credits.

Daily, 2:00 to 5:00.

2. Drawing and painting from the costumed model. Five credits.

Daily, 2:00 to 5:00.

3. Drawing from life. Five credits.

Daily, 2:00 to 5:00.

## 5e.

1. MODELING. Modeling in clay of simple ornaments in relief. Six hours a week. Two credits.

2. MODELING. Modeling from ornaments in the round and from casts of parts of the body. Six hours a week. Two credits.

3. MODELING. Modeling from the torso, feet, arms, and limbs. Six hours a week. Two credits.

## 5f.

1. MODELING. Copies of architectural ornaments, using plants, animals and the human figure. Nine hours a week. Three credits.

2. MODELING. Complete figure from cast. Modeling of the complete figure in the round. Nine hours a week. Three credits.

3. MODELING. Studying part of the body from the nude model. Nine hours a week. Three credits.

## 5g.

1, 2, 3. MODELING. Modeling the whole figure from the nude model. Five credits.

Daily, 2:00 to 5:00.

## 5h.

1, 2, 3. MODELING. Modeling of portrait busts and monumental compositions. Five credits.

Daily, 2:00 to 5:00.

## 5i.

1. PERSPECTIVE. A course in the theory of parallel perspective with its application to cylinders and simple objects. Three hours a week. One credit.

2. PERSPECTIVE. A course in the theory of oblique perspective and application. The study of objects, interiors and buildings. Three hours a week. One credit.

3. PERSPECTIVE. The theory of aerial perspective and its application in drawing buildings, landscapes, etc. Three hours a week. One credit.

## 5j.

1. COMPOSITION. The study of space arrangement and representation by line. Three hours a week. One credit.

2. COMPOSITION. Landscape composition. Three hours a week. One credit.

3. COMPOSITION. Figure composition in relation to architecture. Portrait composition and the composing of two or more figures. Three hours a week. One credit.

## 5k.

1. ILLUSTRATION. This course consists of elementary problems in decoration design, such as initial letters, head and tail pieces, book plates and cartooning and caricature. Six hours a week. Two credits.

2. ILLUSTRATIVE COMPOSITION. Studies in composition of landscape, from life, studies of drapery and interiors. Six hours. Two credits.

3. EXECUTION OF ILLUSTRATION from given subjects intended to stimulate and develop the inventive faculty of the student. Five credits.

Daily, 2:00 to 5:00.

## 5e.

1. ADVERTISING ILLUSTRATION. Designing of advertising arrangement. Clippings from newspapers and magazines are arranged in the most effective ways. Placing of advertising material on the page and the most effective page arrangement considered. Six hours. Two credits.

2. PICTORIAL ADVERTISING. The designing of pictorial advertisements and the drawing of simple objects, such as shoes, purses, pottery, simple machines and furniture. Six hours. Two credits.

## 5m.

1. POSTER COMPOSITION. The principles of poster composition and the designing of posters for farm machines, automobiles and furniture. Five credits.

Daily, 2:00 to 5:00.



2. POSTERS AND BOOK COVERS. Designing of one sheet posters and book covers in black and white and in color, and the study of methods of poster reproduction. Five credits.

Daily, 2:00 to 5:00.

3. POSTERS. Making of designs and methods of enlarging posters. Making of posters for advertising pageants, the theatre, health and pleasure resorts, fairs and expositions. Five credits.

Daily, 2:00 to 5:00.

6a. ANATOMY. ANIMAL CONSTRUCTION. The construction of animals as illustrated by charts and blackboard sketches to give a practical working knowledge of different animals so that many may be drawn without models. Fall quarter. One credit.

T. 1:00.

*Professor Powell.*

6b. ANATOMY. FIGURE CONSTRUCTION. The construction of the human figure with charts and blackboard sketches, to give a working knowledge of the human figure so that it may be drawn in different positions without a model. Winter quarter. One credit.

T. 1:00.

*Professor Powell.*

6c. ANATOMY. Illustrated lectures on the skeleton and the plastic anatomy of the human figure. Spring quarter. One credit.

T. 1:00.

*Professor Powell.*

7. AESTHETICS (English 21.) The essentials common to all the fine arts. The basis of sound judgment and appreciation of poetry, painting, music, sculpture and architecture. Spring quarter. Five credits.

Daily, except Th. 10:00.

*Professor Fletcher.*

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## BACTERIOLOGY AND PHYSIOLOGICAL CHEMISTRY.

PROFESSOR GREAVES.

ASSISTANT PROFESSOR CARTER.

MR. LUND.

### JUNIOR COLLEGE COURSES.

1. GENERAL AGRICULTURAL BACTERIOLOGY. Biology and

9. SANITARY STATISTICS. (Rural Sanitation 8.) Vital statistics showing the effects of sanitary precautions upon health in cities and rural communities. Fall quarter. Two credits.

T. Th. 8:00.

*Assistant Professor Carter.*

10. PHYSIOLOGICAL CHEMISTRY. (Chemistry 7.) The transformations going on in the plant and animal organism. Prerequisite, Chemistry 2 or 3.

Sec. 1. Fall quarter. Five credits. Daily, except Saturday 8:00.

Sec. 2. Spring quarter. Five credits. Daily, except Thursday, 11:00.

*Professor Greaves.*

11. PHYSIOLOGICAL CHEMISTRY. (Laboratory.) May accompany the preceding course. Breaking deposit, \$2.50. Fall quarter. Two credits.

*Assistant Professor Carter.*

13. ADVANCED BIOCHEMISTRY. The chemicals in the plant and animal organism. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 9:00.

*Professor Greaves.*

15. ADVANCED BIOCHEMISTRY. Bacteriological and chemical methods used in the diagnosing of diseases. Winter quarter. Five credits.

Hours to be arranged.

*Professor Greaves.*

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## BOTANY.

PROFESSOR GEORGE R. HILL, JR.

ASSOCIATE PROFESSOR RICHARDS.

MR. NUFFER.

Courses 2, 3, 4, 5 or 8 or 11, and 13 required of students majoring in Botany.

## VOCATIONAL COURSE.

a. ELEMENTARY PLANT PATHOLOGY. Plant diseases off

Utah, their nature, cause and control. For practical course students. Winter quarter. Three credits.

Lec. S. 12:00; lab. F. 2:00 to 5:00.

*Professor Hill, Associate Professor Richards, Mr. Nuffer.*

### JUNIOR COLLEGE COURSES.

1. GENERAL BOTANY. A brief survey of the field of plant life; the nature and development of plants; plant parts and their functions; the food of plants; the relation of plants to human needs; noteworthy wild and cultivated plants.

Sec. 1. Fall quarter. Five credits.

Lec. M. W. F. 9:00; lab. T. Th. 2:00 to 5:00.

Sec. 2. Spring quarter. Five credits.

Lec. M. W. F. 9:00; lab. W. F. 2:00 to 5:00.

*Associate Professor Richards and Mr. Nuffer.*

2a, 2b, 2c. PLANT PHYSIOLOGY, ANATOMY, MORPHOLOGY AND CLASSIFICATION. Plant physiology in relation to crop production is the basis of this course. Designed especially for students in agriculture. Required for major or minor in botany. Prerequisite or parallel, Chemistry 1. Students may register for Botany 2b or Botany 2c, without 2c only by permission. Fall, Winter and Spring quarters. Five credits each quarter.

Lc. Sec. 1. M. W. F., 8:00; Sec. 2, T. Th. S. 8:00.

Labs. M. or T. and Th or. F. 2:00 to 5:00.

*Professor Hill and Mr. Nuffer.*

### SENIOR COLLEGE COURSES.

3. FLOWERING PLANTS. Our common plants and their relationships; special emphasis given to economic plants. Two lectures and one, two or three laboratory periods. Prerequisite, Botany 1 or Botany 2. Spring quarter. Three, four or five credits.

Lec. Th. S. 10:00; lab. Th. 2:00 to 5:00 and any other after.

*Associate Professor Richards and Mr. Nuffer*

3a. A CONTINUATION OF COURSE 3, extending through the

summer. A consideration of the general summer flora or of particular families and their distribution. A laboratory course. Prerequisite Botany 3. Two to five credits according to work done.  
*Associate Professor Richards and Mr. Nuffer.*

4. PLANT PHYSIOLOGY. An advanced course dealing with the water relations of plants; absorption, metabolism and growth and factors affecting it. Prerequisite, Botany 2. Five credits.  
(Not given in 1921-22). *Professor Hill.*

5. PLANT PATHOLOGY. The history, nature, cause and control of plant diseases. Prerequisite, Botany 1 or 2. Fall quarter. Five credits.  
Lec. M. W. F. 10:00; lab. M. F. 2:00 to 5:00.  
*Associate Professor Richards.*

6. MYCOLOGY. Winter quarter. Three credits.  
Lec. T. Th. 11:00; lab. T. Th. 2:00 to 5:00.  
*Associate Professor Richards.*

7. MORPHOLOGY.  
(Not given 1921-22.)

8. MATERIALS AND METHODS IN BOTANICAL TECHNIC. Collection and preservation of botanical specimens. Preparation of botanical materials and slides for class room study and exhibition purposes. Designed particularly for teachers of botany. Prerequisite, Botany 1 or 2. A laboratory course. Any quarter. Two to five credits.  
*Associate Professor Richards.*

10. DENDROLOGY. Structure and properties of wood; economic woods, their identification and uses. Prerequisite, Botany 1 or 2. Physics 1 should also precede the course. One lecture and one laboratory period. Spring quarter. Two credits. Time to be arranged.  
*Professor Hill.*

11. ECOLOGY. The distribution and adaptation of plants

in relation to temperature, nature, light, soil alkali and other environmental factors.

(Not given in 1921-22.)

12. SEMINAR. Current literature in the field of botany. One hour a week. Fall, Winter and Spring quarters. One credit each quarter. Time to be arranged. *Professor Hill.*

13. RESEARCH. Open to all qualified Senior College students. Time and credit to be arranged. *Professor Hill or Associate Professor Richards.*

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## BUSINESS ADMINISTRATION.

PROFESSOR WANLASS,  
PROFESSOR P. E. PETERSON.  
PROFESSOR M. H. HARRIS.  
MR. CLAWSON.

### VOCATIONAL COURSE.

a. ECONOMICS OF BUSINESS. An elementary course dealing with the principles of economics, particularly as they apply to the organization, financing and managing of business enterprises. Winter quarter. Three credits.

M. W. F. 11:00.

*Mr. Clawson.*

### JUNIOR COLLEGE COURSE

1. PRINCIPLES OF BUSINESS. An introductory course in which the fundamental principles underlying the organization, financing and managing of business institutions are studied. A survey of the whole field of business activity is made, preparatory to more intensive study in the advanced courses in this department. Fall and Winter quarters. Three credits, each quarter.

M. W. F. 10:00.

*Professor Wanlass.*



## SENIOR COLLEGE COURSES.

2. CREDITS AND COLLECTIONS. After a study of the nature and importance of credit in the modern business world, careful attention will be given to the practical work of the credit man and credit department. Consideration will also be given to credit institutions, credit forms, statements, methods of collection and legal remedies. Prerequisites, Economics 1 or 2 and Business Administration 1. Spring quarter. Three credits.

M. W. F. 10:00.

*Professor Wanlass.*

3. BUSINESS FINANCE. Various types of business organizations will be considered and attention will be given to the methods of providing capital and managing the current finances. Special consideration given to the financing of small rural enterprises. Prerequisites, Economics 1 or 2 and Business Administration 1. Spring quarter. Three credits.

(Not given 1921-22.)

*Professor M. H. Harris.*

4. LABOR MANAGEMENT. Labor problems studied from the standpoint of the employer. Special consideration given to the principles of executive control, hours of work, working conditions and various methods of attaining greater efficiency. Prerequisites, Economics 1 or 2 and Business Administration 1. Fall quarter. Three credits.

T. Th. S. 10:00.

*Mr. Clawson.*

5. SCIENTIFIC MANAGEMENT. A careful study will be made of the principles and the advantages and disadvantages of scientific management. Prerequisites, Economics 1 or 2 and Business Administration 1. Fall quarter. Three credits.

M. W. F. 3:00.

*Professor Peterson.*

6. INSURANCE AND INSURANCE ACCOUNTING. (Accounting 3b). A discussion of fundamental principles of insurance. Attention will be given to the practices of modern insurance com-

3a. ORGANIC CHEMISTRY. A laboratory course dealing with the fundamental principles of organic chemistry. Designed for students who have had Chemistry 2 or 3. Fall or Winter quarter. Two credits.

Lab. M. W. 2:00 to 5:00.

*Professor Hill.*

4. QUALITATIVE ANALYSIS. A course in the theory and practice of inorganic qualitative analysis. Prerequisite Chemistry 1. Winter and Spring quarters. Three credits each quarter.

Lec. T. 2:00; lab. T. 3:00 to 5:00 Th. F. 2:00 to 5:00.

*Assistant Professor Hirst.*

#### SENIOR COLLEGE COURSES.

6. QUANTITATIVE ANALYSIS. A course in the theory and application of the fundamental principles of gravimetric and volumetric analysis to inorganic agricultural and food analysis. Prerequisite, Chemistry 4. Winter and Spring quarters. Three credits each quarter.

Lec. Th. 2:00; lab. Th. 3:00 to 5:00; T. F., 2:00 to 5:00.

*Assistant Professor Hirst.*

7. PHYSIOLOGICAL CHEMISTRY. (Bacteriology and Physiological Chemistry 10.) The chemical transformations occurring in plant and animal organisms. Prerequisite, Chemistry 2 or 3. Five credits.

Sec. 1. Fall quarter. Daily, except Saturday at 8:00.

Sec. 2. Spring quarter. Daily except Thursday at 11:00.

*Professor Greaves.*

8. INDUSTRIAL CHEMISTRY. The student will study the application of chemistry in the manufacture and uses of various substances such as cements, fertilizers, gases, explosives, paints, pigments, soaps, sugar, starch, paper, potash, salt, sulphuric acid, and in the smelting of ores. Arrangements will be made for the class to visit the leading industrial plants of the State. Three

lectures and thirty-six hours of field work visiting industrial plants.

Not given unless requested by 10 students.

9. CHEMISTRY OF TEXTILES. (Textiles 2c.) Chemical methods for the identification and estimation of the textile fibres, including complete quantitative determination of cotton, wool, silk and linen substances in fabrics. Chemistry of dyeing and bleaching. Prerequisites, Chemistry 3, Textiles and Clothing 2a and 2b. Spring quarter. Three credits.

Hours to be arranged.

*Assistant Professor Hirst.*

10. SPECIAL COURSE IN QUANTITATIVE ANALYSIS. Prerequisite Chemistry 6. Time and credit to be arranged with instructor.

- a. Water analysis.
- b. Food analysis.
- c. Soil analysis.
- d. Urine analysis.
- e. Gas analysis.

*Assistant Professor Hirst.*

13. GENERAL ORGANIC REACTIONS. The more important reactions employed in synthetic organic chemistry. Prerequisite, Chemistry 2 or equivalent. Spring quarter. Three credits.

T. Th. S. 11:00.

*Assistant Professor Hirst.*

14. THE NITROGEN COMPOUNDS. A course devoted primarily to the proteins, alkaloids and purine derivatives. Prerequisite, Chemistry 2. Winter quarter. Two credits.

Hours to be arranged.

*Professor Hill.*

15. ORGANIC PREPARATIONS. An advanced laboratory course in practical laboratory methods of synthetic organic chem-

istry. Prerequisite, Chemistry 2. Fall or Winter quarter. Three credits.

Time to be arranged. *Assistant Professor Maeser.*

16. PHYSICAL CHEMISTRY. (Physics 5). The kinetic theory, solutions, thermo-chemistry and electro-chemistry. Prerequisites, Chemistry 1 and Physics 1. Fall and Winter quarters. Three credits each quarter.

M. W. F., 8:00. *Mr. Edlefsen.*

17. HISTORY OF CHEMISTRY. Fall, Winter and Spring quarters. Two credits each quarter.

(Not given 1921-22.)

18. RESEARCH. Senior students specializing in chemistry may elect research in any branch of the subject. Time and credit to be arranged with the instructor. *Professor Hill.*

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## DAIRY HUSBANDRY.

PROFESSOR CAINE.

ASSISTANT PROFESSOR WILSTER.

### JUNIOR COLLEGE COURSES.

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. Fall or Winter quarter. Five credits.

Lec. M. W. F. 9:00; lab. T. Th. 2:00 to 5:00.

*Assistant Professor Wilster*

2. MARKET MILK. The production, preparation, marketing and food value of sanitary, certified, modified and fermented milk. Winter quarter. Three credits.

M. W. F., 11:00.

*Assistant Professor Wilster.*

3. DAIRY TECHNOLOGY. The manufacture of renovated butter, whey butter, oleomargarine, dried and condensed milk, milk sugar and casein. Spring quarter. Three credits.

Lec. T. Th. 11:00; lab. M. 2:00 to 5:00.

*Assistant Professor Wilster.*

4. ICE CREAM AND ICES. Spring quarter. Three credits.

Lec. T. Th. 9:00; lab. T. 2:00 to 5:00.

*Assistant Professor Wilster.*

#### SENIOR COLLEGE COURSES.

5. BUTTERMILK. Designed to meet the needs of the creameryman. Prerequisite, Dairying 1. Time and credit to be arranged.

*Assistant Professor Wilster.*

6. CHEESE MAKING. The manufacture, curing and storage of the various standard kinds of cheese. Prerequisite, Dairy 1. Time and credit to be arranged

*Assistant Professor Wilster.*

7. SEMINAR AND RESEARCH WORK. Important dairy subjects; a digest of recent dairy work of the experiment station. Time and credit to be arranged with the department.

*Professor Caine and Assistant Professor Wilster*

10. DAIRY PRODUCTION. A brief review of breeds of dairy cows; starting a herd; systems of herd records; calf feeding; herd management. Each student submits an original plan of a dairy farm; estimating values of property, expense of operation and profits to be derived. Spring quarter. Six credits.

Daily, except Saturday 10:00.

*Professor Caine*



## ECONOMICS.

PROFESSOR M. H. HARRIS

PROFESSOR WANLASS.

PROFESSOR BROSSARD.

MR. CLAWSON.

VOCATIONAL COURSE

a. ECONOMICS. The general principles and laws of man's economic activities. The influence of geography, climate, organization, laws and government on economic progress will be considered. The productive processes, land, labor and capital will be studied and the theories of economic reform considered. Fall quarter. Repeated in Winter quarter. Three credits.

T. Th. S. 9:00.

*Mr. Clawson*

## JUNIOR COLLEGE COURSES.

1. GENERAL ECONOMICS. After a brief survey of man's economic development, a careful study is made of those fundamental laws and principles that govern our modern economic life. Attention is also given to present economic problems preparatory to a more intensive study in the advanced courses in this department. Fall, Winter and Spring quarters. Three credits each quarter.

Sec. 1, M. M. F. 8:00.

*Professor Wanlass*

Sec. 2, M. W. F. 11:00.

*Professor Harris*

3. ECONOMIC DEVELOPMENT OF THE UNITED STATES. A critical study will be made of the development of agriculture, industry, commerce, transportation, banking, labor organizations, etc., in the United States from the Colonial Period to the present time. Fall and Winter quarters. Three credits each quarter.

T. Th. S. 8:00.

*Professor Harris.*

## SENIOR COLLEGE COURSES.

2. GENERAL ECONOMICS. A comprehensive study of the fundamentals of economic theory. Prerequisite, High School Economics or Senior College standing. Winter and Spring quarters.

T. Th. S. 10:00.

*Professor Harris*

4. AGRICULTURAL ECONOMICS. (Agricultural Economics 7.) After a survey of the whole field of economics, special attention will be given to those principles and problems most closely related to rural life and farming. Prerequisite, Economics 1 or 2. Fall quarter. Three credits.

T. Th. S. 9:00.

*Professor Brossard.*

5. LABOR PROBLEMS. Study of the labor situation from the social point of view. Special attention given to labor problems and methods of securing industrial peace. Prerequisite, Economics 1. Spring quarter. Three credits.

T. Th. S. 10:00.

*Mr. Clawson.*

6. MONEY AND CREDIT. The nature, development and uses of money and credit. Special attention given to bimetalism, the gold standard, the money market and the relation of money and credit to prices. Fall quarter. Three credits.

M. W. F. 9:00.

*Professor Harris.*

7. BANKING. After a brief survey of the development of banking in foreign countries and in the United States, our present banking organization and practices will be critically studied. Special attention given to the Federal Reserve System. Prerequisite, Economics 1 or 2. Winter quarter. Three credits.

M. W. F. 9:00.

*Professor Harris.*

8. BANKING PRACTICE. A technical course treating of the internal problems of bank organization. The emphasis is placed

not upon the routine of bank operation, but upon the larger problems of management, not upon clerical work, but upon work of official responsibility. Banking technic will be studied from the standpoint of functions, rather than from that of bank departments. Prerequisites, Economics 6 and 7. Spring quarter. Three credits.

M. W. F. 9:00.

*Professor Harris.*

9. PUBLIC FINANCE. The fundamental principles of public expenditures, revenues and fiscal administration. Practices of different nations compared. Prerequisite, Economics 1 or 2. Fall quarter. Three credits.

T. Th. S. 11:00.

*Professor Wanlass.*

10. TAXATION. A critical examination of the tax systems of the federal, state and local governments. Special attention given to the tariff, property tax, income tax and the various business taxes. Prerequisite, Economics 1 or 2. Winter quarter. Three credits.

T. Th. S. 11:00.

*Professor Wanlass.*

11. COMMERCE AND COMMERCIAL POLICIES. Attention given to the fundamentals of trade and commerce, to the methods of increasing, limiting and directing American trade and to commercial policies. Prerequisite, Economics 1 or 2. Fall quarter. Three credits.

T. Th. S. 10:00.

*Professor Harris.*

12. CURRENT ECONOMIC PROBLEMS. A reading and research course designed for senior and graduate students who are majoring in economics and related subjects. Special reports will be made on current economic problems and literature. Fall, Winter and Spring quarters. One credit each quarter. Time to be arranged.

*The Department.*

## EDUCATION AND PEDAGOGY

PROFESSOR HENRY PETERSON.

PROFESSOR EVANS.

ASSISTANT PROFESSOR OBERHANSLEY.

ASSISTANT PROFESSOR KEWLEY.

### VOCATIONAL COURSE

a. JUNIOR EXTENSION LEADERSHIP. This course includes one week's intensive training at the Agricultural College in project leadership. Each person registered must lead a standard club of at least 5 members all registered in the same project, until the project is completed. The field work will be done under the supervision of the Extension Division Staff, and regular reports will be required. From 2 to 4 quarter hours credit will be given depending on the nature, quality, and amount of work done. The student must register in advance for the work for which credit is given.

### JUNIOR COLLEGE COURSES.

1. INTRODUCTORY PSYCHOLOGY. An elementary study of mental processes to enable students the better to direct their educational careers in college and to grasp in a general way the psychology of business, trade or profession.

Sec. 1, Fall quarter. Five credits.

Daily except Saturday 8:00.

Sec. 2, Winter and Spring quarters. Three credits each quarter.

T. Th. S. 9:00.

*Professor Peterson.*

2. PHYSICAL DEVELOPMENT. How to keep physically fit. The close correlation between mental fitness and physical fitness. Lecture course. Winter and Spring quarters. Two credits each quarter.

T. Th. 8:00.

*Professor Peterson, Assistant Professor Jensen*

3. SCOUTMASTERSHIP. A course in the organization, management and leadership of the boy scout troop. First aid, signalling, handicraft, camping, athletics and games, stories, trees, birds, rocks, stars, etc; the problems and aims of the boy scout movement. One lecture and one laboratory period. Hikes will be arranged. Spring quarter. Two credits.

Lec. M. 11:00; lab. to be arranged.

Committee in charge: *Professor George R. Hill, Jr., Professor Harris, Professor Richards, Professor Hogenson, Professor Fletcher, Professor Henry Peterson, Professor William Peterson.*

4a. HISTORY OF EDUCATION. The evolution of education and of educational institutions in the ancient pagan civilizations including Greece and Rome. A study of their ideals and processes. Fall quarter. Three credits.

M. W. F. 10:00.

*Professor Peterson.*

4b. HISTORY OF EDUCATION. The rise and growth of Christianity with its schools and systems of education in Europe down to Modern times. Prerequisite, Education 4a. Winter quarter. Three credits.

M. W. F. 10:00.

*Professor Peterson*

4c. HISTORY OF EDUCATION. European education transplanted and gradually adapted to American conditions and to democracy. The growth and development of American education to the present. Education 4a and 4b suggested as a preparation for this course. Spring quarter. Three credits.

M. W. F. 10:00.

*Professor Peterson.*

#### SENIOR COLLEGE COURSES.

5a. PRINCIPLES OF PSYCHOLOGY. A course designed for those preparing to teach, to become county agents in agriculture or home economics or social leaders in other activities. The course deals in a general way with the processes of mental activity and growth and is a prerequisite for later courses. Fall quarter. Three credits.

M. W. F. 11:00.

*Professor Peterson.*



5b. **PSYCHOLOGY OF ADOLESCENCE.** A course for those preparing to become high school teachers, directors of summer activities or leaders otherwise of adolescents. Prerequisite, Education 5a. Winter quarter. Three credits.

M. W. F. 11:00.

*Professor Peterson.*

5c. **EDUCATIONAL PSYCHOLOGY.** For prospective teachers and leaders. This course applies to the principles studied in preceding courses and to the teaching process and other aspects of social leadership. Prerequisite, Education 5a. Spring quarter. Three credits.

M. W. F. 11:00.

*Professor Peterson.*

7. **PRINCIPLES OF EDUCATION.** A study of the educative process and of the means and aims of education and their application to high school teaching and community leadership. Prerequisite, Psychology. Fall quarter. Three credits.

T. Th. S. 10:00.

*Professor Peterson.*

9a. **RURAL EDUCATION.** Smith-Hughes methods of teaching agriculture and home economics in high school will be considered. The project method and its application to the studies above named and to other high school studies. Winter quarter. Three credits.

T. Th. S. 10:00.

*Professor Peterson.*

9b. **RURAL EDUCATION.** Designed to prepare county agricultural agents, county home demonstration agents, agricultural specialists, home economics specialists, club leaders and state leaders. Also open to all students preparing to teach in agriculture and home economics in high schools. Courses 9a and 9b should be taken by all who expect to teach in these lines. Spring quarter. Three credits.

T. Th. S. 10:00.

*Professor Peterson.*

20. **METHODS OF TEACHING HOME ECONOMICS.** Fall and Winter quarters. Three credits each quarter.

M. W. F. 9:00.

*Assistant Professor Kewley.*

22. APPRENTICE TEACHING IN HOME ECONOMICS. Fall, Winter or Spring quarter. Five to ten credits.

Hours to be arranged. *Assistant Professor Kewley.*

24. METHODS OF TEACHING AGRICULTURE. Fall and Winter quarters. Three credits each quarter.

Hours to be arranged. *Assistant Professor Oberhansley.*

26. APPRENTICE TEACHING IN AGRICULTURE. Fall, Winter or Spring quarter. Five to ten credits.

Hours to be arranged. *Assistant Professor Oberhansley.*

#### GRADUATE COURSE

30. METHODS OF EXTENSION WORK. Intensive study of the problems and functions of county agricultural agents, county home demonstration agents, agricultural specialists, home economics specialists, club leaders and state extension leaders. The following topics will be covered: A brief history of extension work; present organization and status of extension work; choosing the local program of work; developing projects; training local leaders; follow-up methods; methods in conducting meetings, demonstrations, exhibits, field trips, and contests; office organization, equipment, etc.; report writing, letter writing, and preparation of illustrative and other publicity material; the outlook for extension workers. Field trips will be made into those parts of the State where the most successful extension work is being done. Much practical experience. First term, Summer quarter. Credit to be arranged.

Hours to be arranged. *Professors Peterson and Evans.*

NOTE: Students who are preparing for positions as extension workers should include Education 5a, 5b, 5c, 7, 9b and 30. Education 30 is designed especially to fit teachers in agriculture and home economics for the more lucrative positions in the extension service and to enable those already in extension work to reach the higher positions in the field.

## ENGLISH.

PROFESSOR PEDERSEN.

ASSISTANT PROFESSOR KYLE.

ASSISTANT PROFESSOR VICKERS.

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

### VOCATIONAL COURSES.

b. ELEMENTARY ENGLISH. Fundamentals of good writing, reading and speaking. Grammar, spelling, punctuation, composition applied to easy classics. Students may enter at any quarter. Fall, Winter and Spring quarters. Five credits each

Sec. 1. Daily, except Saturday 9:00.

*Assistant Professor Vickers.*

Sec. 2. Daily, except Thursday, 10:00. (Winter quarter.)

Mr. \_\_\_\_\_

c. ORAL AND WRITTEN COMPOSITION. Letters and business forms. Novels, essays and plays will be read and discussed. Students may enter at any quarter. Fall, Winter and Spring quarters. Three credits a quarter.

Sec. 1. M. W. F. 11:00.

*Assistant Professor Kyle.*

Sec. 2. T. Th. S. 9:00.

Mr. \_\_\_\_\_

### JUNIOR COLLEGE COURSES

5. COLLEGE GRAMMAR. Three credits each quarter. Course repeats.

Sec. 1. Fall quarter T. Th. S. 10:00.

Sec. 2. Winter quarter T. Th. S. 8:00.

Sec. 3. Spring quarter T. Th. S. 8:00.

Sections limited to thirty students.

*Assistant Professor Vickers.*

6. HISTORY OF ENGLISH LITERATURE. The literature of Great Britain from the Anglo Saxon period to the present day,

with emphasis on the ages since Shakespere. Fall, Winter and Spring quarters. Three credits each quarter.

Sec. 1. M. W. F. 8:00. *Assistant Professor Kyle.*

Sec. 2, M. W. F. 11:00. *Assistant Professor Vickers*

# 7. FRESHMAN COMPOSITION.

BUSINESS ENGLISH. Sec. 1.—Runs throughout the year and includes not only practice in the wording of business forms, but also considerable drill in rhetorical details. Three credits each quarter.

M. W. F. 9:00. *Mr. \_\_\_\_\_*

BUSINESS ENGLISH. Sec. 2. Similar to section one, but with less drill in rhetorical practice. Runs through the Winter and Spring quarters only. Three credits each quarter.

T. Th. S. 8:00. *Mr. \_\_\_\_\_*

LITERARY FORMS. Description, narration, stories. Fall, Winter and Spring quarters. Two credits each quarter.

Sec. 3. M. W. 10:00. *Professor Pedersen*

Sec. 6. T. S. 11:00. *Assistant Professor Vickers.*

EXPOSITION. Sec. 4. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 1:00. *Assistant Professor Kyle.*

EXPOSITION. Sec. 5. Winter and Spring quarters. Three credits each quarter.

T. Th. S. 10:00. *Assistant Professor Kyle.*

## SENIOR COLLEGE COURSES

8. ADVANCED WRITING. Course is based on current models as found in Cunliffe and Lomer's "Writing of Today," which is used as a text. The training afforded should lead the student toward the mazagine market. Prerequisite, freshman composition. Fall, Winter and Spring quarters. Two credits each quarter.

T. S. 11:00. *Professor Pedersen.*

9. RECENT NOVEL. Writers of the twentieth century: Wells, Conrad, Galsworthy, Bennett, Howells, Herrick and others. Recent thought tendencies are emphasized.

T. Th. 1:00.

*Professor Pedersen.*

10. SHAKESPERE. Detailed study in class of six plays, *Mc-beth*, *Henry the Fourth*, *King Lear*, *Hamlet*, *Othello*, *Twelfth Night*. Collateral reading: various other Shakesperean plays as well as a biography. Fall, Winter and Spring quarters. Three credits each quarter.

T. Th. S. 9:00.

*Professor Pedersen*

11. MODERN DRAMA (not given 1921-22).

12. AMERICAN LITERATURE. From colonial times to the present. Spring quarter. Three credits.

M. W. F. 8:00.

*Professor Pedersen.*

13. THE BIBLE AS ENGLISH LITERATURE. This course will familiarize the student with the contents of the Bible. Some of the sub-topics are: history, prophecy, wisdom literature, poetry, the Bible as a whole. The emphasis is on reading, understanding and enjoying the great Book of Books. Open to students of the Junior College. Fall and Winter quarters. Three credits each quarter.

M. W. F. 10:00.

*Assistant Professor Vickers.*

14. THE ESSAY. The English essay of the nineteenth century from Lamb to Stevenson. Recent English and American essays, by Arnold Bennett, H. G. Wells, G. K. Chesterton, Agnes Repplier, Samuel Crothers. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 9:00.

*Assistant Professor Kyle.*

15. ADVANCED BUSINESS ENGLISH. The writing of sales letters, preparation of booklets, circulars and direct mail adver-



tising of all kinds. Prerequisites, English 7 (Business English), Marketing 1, 2 and 3. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 900.

*Professor Robinson.*

16. WORLD MASTERPIECES. (Not given 1921-22).

19. ENGLISH POETS OF THE NINETEENTH CENTURY. (Not given 1921-22).

20. DEBATING. Fall and Winter quarters. Two credits each quarter.

M. F. 8:00.

*Professor Pedersen.*

21. AESTHETICS. (Art 7) Study of the correlation of the fine arts and the principles governing sound judgment in each. Spring quarter. Five credits.

Daily, except T. 10:00.

*Professor Fletcher.*

25. JOURNALISM. News collecting, study of country and city papers, preparation of agricultural feature stories for magazines and newspapers. Students of ability taking this course may sell much of their class work to the college department of information service, thus getting much training in publicity work and agricultural editorship. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 1:00.

*Professor Arnold.*

27. THE SHORT STORY. A study of the technic of the short story. Stories by de Maupassant, Poe, Hawthorne, Bret Harte, Kipling, O. Henry and others will be analyzed. Attention will be given to the best short stories appearing in current magazines. Fall quarter. Three credits.

T. Th. S. 10:00.

*Assistant Professor Kyle.*

30. LITERATURE FOR CHILDREN. Study of juvenile poetry

and prose. The nursery rhyme, fairy tale, fable, myth, favorite classics, etc. Spring quarter. Three credits.

M W. F. 11:00.

*Professor Pedersen*

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## ENTOMOLOGY.

PROFESSOR HAWLEY.

ASSISTANT PROFESSOR PACK.

MR. KING.

See department of Zoology for related work.

### VOCATIONAL COURSE

a. BEE-KEEPING. Methods and technic of bee-keeping. Manipulation of colonies, the apiary, hives, transferring, feeding, extracting, diseases and improvement are given attention. Fall, Winter and Spring quarters. Three credits each quarter.

Hours to be arranged.

### JUNIOR COLLEGE COURSES

1. AGRICULTURAL ENTOMOLOGY. A general study of the insects of the intermountain region and of methods of control. Winter quarter. Three credits.

T. Th. S. 8:00.

2. SYSTEMATIC ENTOMOLOGY. Enough of the structure of insects is studied to enable the student to use the tables employed in classification. Each student must collect, mount and properly identify a representative collection of insects found in the vicinity of Logan. Fall, Winter and Spring quarters. Three credits each quarter.

Hours to be arranged.

3. ECONOMIC ENTOMOLOGY. This course treats in detail insects of the intermountain region and, in addition, those of

considerable importance in other states. The structure, classification, metamorphosis, habits and economic relations of insects are carefully studied. Reports required. Fall, Winter and Spring quarters. Three credits each quarter.

T. Th. S. 10:00.

#### SENIOR COLLEGE COURSES.

4. ENTOMOLOGICAL LITERATURE. Each student investigates and reports on the literature of some insect or insects of economic importance within his state. Historical development of entomology, current entomological literature and bibliographies are considered. Prerequisite, Entomology 2 or 3. Fall, Winter and Spring quarters. Three credits each quarter.

5. RESEARCH. Students may select or will be assigned certain problems dealing with different phases of entomology. The amount of credit will depend on the nature of the problems and the time spent. Thesis. Prerequisite, Entomology 2 or 3. Hours and credit to be arranged.

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### FARM MANAGEMENT.

PROFESSOR BROSSARD.

ASSISTANT PROFESSOR THAIN.

Mr. \_\_\_\_\_

Note.—Students who major in Farm Management are required to take Farm Management 1, 2, 3, 4, and 5. Agricultural Economics 1, 3, 4, 5, 6, 7, 8, 9 and 10; Agronomy 1a and 6; Animal Husbandry 1 and 3a, and Horticulture 1 may be accepted toward a major in Farm Management.

#### VOCATIONAL COURSE

a. FARM MANAGEMENT. A study of essential farm records and problems involved in choosing, buying, planning, or-

ganizing and managing a farm. Discussions of proper size, balance, diversity and quality of farm business; economical combinations of livestock, crops, pasture and ranges; and efficient use of equipment and man and horse labor. Fall, Winter or Spring quarter. Five credits.

Daily, except Thursday 11:00.

*Mr. ———*

### JUNIOR COLLEGE COURSE

1. FARM BOOKKEEPING. (Accounting 1b) Principles of bookkeeping with special application to the farm. Two lectures and six hours of practice work each week. Winter quarter. Four credits.

Lec. T. Th. 1:00.

*Assistant Professor Thain.*

### SENIOR COLLEGE COURSES

2. FARM MANAGEMENT. (Agricultural Economics 11). A study of the problems involved in choosing, buying, planning, organizing and managing a farm; in determining the proper size, balance, diversity and quality of farm business; in combining economically livestock, crops, pasture and ranges; and in using efficiently equipment and man and horse labor. Prerequisites, Economics 1 or 2, Animal Husbandry 1 or 3a, and Agronomy 1a (or equivalent) and 6. Winter quarter. Three credits.

T. Th. S. 9:00.

*Professor Brossard.*

3. FARM COST ACCOUNTING. (Accounting 8). Enterprise Costs accounts and complete farm cost accounts. Special emphasis is given to the analysis and interpretation of results and their application in the organization and management of the farm. Prerequisite, Agricultural Economics 2. Spring quarter. Three credits.

T. Th. S. 9:00.

*Professor Brossard*

4. TYPES OF FARMING. A study of the natural and economic factors affecting types of farming in Utah, the United

States and other countries, with discussions of the problems of land settlement, land tenure, land utilization, contracts and leases. Spring quarter. Three credits.

M. W. F. 10:00.

*Professor Brossard.*

5. ELEMENTS OF AGRICULTURAL ECONOMICS. (Agricultural Economics 7). Economic principles underlying farm management, land tenure, general farming operations and rural life. Special attention is given to Western conditions. Prerequisite, Economics 1 or 2. Fall quarter. Three credits.

T. Th. S. 9:00

*Professor Brossard.*

6. RESEARCH. Special investigations of problems in Farm Management. Only those senior and graduate students who present an acceptable plan for an investigation will be admitted. Credit will be granted according to the work done.

Time to be arranged.

*Professor Brossard.*

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## FARM AND AUTO MECHANICS.

ASSISTANT PROFESSOR A. H. POWELL

### VOCATIONAL COURSES

Courses a, c, b, i and w are offered with a view of fitting men to become efficient auto and farm mechanics. About two-fifths of the time is devoted to lecture and recitation work and three-fifths to actual practical work.

a. AUTOMOBILE AND TRACTOR COURSE. Arranged for men who wish to specialize in auto mechanics and tractor work. Full time devoted to automobile design and construction, machine work, auto forging, shop mathematics and the study of gas motors. Fall, Winter, Spring and Summer quarters. Three credits each quarter.



Sections 1, 2 and 4—Auto Mechanics.

Section 3—Tractor Mechanics.

*Assistant Professor Powell*

c. ADVANCED AUTO REPAIR. A continuation of the automobile work in course "a." Special emphasis will be given to standard methods of repair, shop equipment and shop management. Any quarter. Eight credits each quarter.

Daily, 8:00 to 11:00.

*Assistant Professor Powell*

b. STORAGE BATTERY REPAIR. A study of the various types of storage batteries. Considerable time will be given to battery troubles and repairs. Fall, Winter and Spring quarters. Eight credits each quarter.

Fall quarter, daily 8:00 to 11:00.

Winter and Spring quarters, daily 2:00 to 5:00.

*Assistant Professor Powell*

i-1. AUTO STARTING, LIGHTING AND IGNITION. Arranged for students who wish to become expert in this line of work. Considerable time devoted to trouble hunting and repair. Fall, Winter and Spring quarters. Eight credits each quarter.

Fall, quarter, daily 2:00 to 5:00.

Winter and Spring quarters, daily 8:00 to 11:00.

*Assistant Professor Powell*

i-2. AUTO STARTING, LIGHTING AND IGNITION. A continuation of Farm and Auto Mechanics "i-1." Special attention to motor and generator repairs and rewinding. Spring quarter. Eight credits.

Daily, 8:00 to 11:00.

*Assistant Professor Powell*

w. OXY-ACETYLENE WELDING. A study of the properties of various metals. Considerable practice is afforded in welding steel, cast iron, aluminum and other metals used in motor construction. Winter and Spring quarters. Eight credits each quarter.

Daily, 2:00 to 5:00.

*Assistant Professor Powell*

JUNIOR COLLEGE COURSES

1. FARM MACHINERY. Tillage, cultivating, harvesting, pumping and general labor saving machinery. Fall quarter. Three credits.

Lec. W. F. 8:00; lab. M. 2:00 to 5:00.

(Not given 1921-22.)

2. FARM MOTORS. The design, operation, care and adjustment of gasoline engines used on the farm, including the stationary engine, the tractor, the automobile and motor truck. Any quarter. Five credits.

Sections 1 and 2 reserved for Winter course students only.

Lec. M. W. F. 8:00—Winter or Spring quarter.

Lab. Sec. 1, T. Th. 2:00 to 5:00, Winter quarter.

Sec. 2, W. F. 2:00 to 5:00 Winter quarter.

Sec 3, T. Th. 2:00 to 5:00, Spring quarter.

*Assistant Professor Powell*

SENIOR COLLEGE COURSES

3. APPLIED FARM MECHANICS. Arranged for teachers in agriculture and men preparing to qualify in Smith-Hughes work. A study of modern machinery, farm motors and farm appliances. Fall quarter. Five credits.

Lec. T. Th. S. 8:00; lab. T. Th. 2:00 to 5:00.

*Assistant Professor Powell*

5. ADVANCED FARM MOTORS. A thorough analysis of ignition devices for all gas engines, the care of the storage battery, magnetos, locating engine troubles; a study of farm electric lighting. Spring quarter. Five credits.

Lec. T. Th. S. 8:00; lab. M. W. 2:00 to 5:00.

*Assistant Professor Powell.*

## FOODS AND DIETETICS.

PROFESSOR WHITACRE.

MISS WINNIFRED SMITH.

Students who elect Foods and Dietetics as their major are required to complete Foods 2 and 4.

### VOCATIONAL COURSE

a. **FOOD FOR THE FAMILY.** Nutritional, economical and sanitary influences affecting the choice of food; study of food to meet dietary needs of the normal family. Practice in food preparation. Lecture-laboratory combination of work. This course will begin in the Fall provided a sufficient number of students register, otherwise it will begin with the Winter quarter. Three credits each quarter.

M. W. F. 9:00 to 12:00.

*Miss Smith.*

### JUNIOR COLLEGE COURSES

1. **MEAL CONSTRUCTION.** A brief study of the principles underlying the selection, preparation and serving of food. This course is designed primarily for those students who are not registered in the School of Home Economics. Home Economic students who are not majoring in Foods and Dietetics should register for Foods 2 and 3 rather than Foods 1. Prerequisite, Physiology 1 or Physics 3; parallel Chemistry 1. Winter and Spring quarters. Three credits each quarter.

Lec. Th. 11:00; lab. T. Th. 2:00 to 5:00.

*Professor Whitacre and Miss Smith*

2. **FOOD ECONOMICS.** General methods of food production and distribution. Study of principles underlying choice of food and practice in technic of preparation of human food. Prerequisites, Chemistry 1 and Physics 1; Prerequisites or parallel,

Physiology 1 and Botany or Zoology 1. Fall, Winter and Spring quarters. Four credits each quarter.

Lec. T. Th. 1:00; lab. M. W. or T. Th. 2:00 to 5:00.

*Professor Whitacre and Miss Smith.*

### SENIOR COLLEGE COURSES

3. FOOD ENGINEERING. The economic, sanitary and aesthetic principles involved in the purchase, preparation, preservation and serving of food. The essentials in the planning of kitchen and dining room; the arrangement of furniture and equipment and the management of the work connected with home food problems as factors conducive to the greatest efficiency. Prerequisites, Art 1 or 21; Bacteriology 1, Foods 2. Advised prerequisites or parallel, Economics 1, Textiles 2a and 2b. Fall quarter. Four credits.

Lec. T. Th. 9:00; lab. W. F. 2:00 to 5:00.

*Professor Whitacre and Miss Smith*

4. DIETETICS. The principles of human nutrition. Human dietary needs; nutritive value of foods. Practice in construction of dietaries to meet given needs. Prerequisites, Chemistry 3 and 7 and Foods 2. Winter and Spring quarters. Five credits each quarter.

Lec. M. W. F. 8:00; lab. W. F. 2:00 to 5:00.

*Professor Whitacre*

6. SPECIAL DIETS. Choice and preparation of food under conditions that present definite problems; as for infants and children, school lunches and the sick. Laboratory practice in preparation of foods suitable to demands in given instances. Collateral reading. Prerequisite, Foods 4. Fall quarter. Three credits.

Lec. M. W. 11:00; lab. M. 2:00 to 5:00.

*Professor Whitacre*

10. SPECIAL PROBLEMS. Seminar. Project to be planned with instructor and carried out under her supervision. Pre-

requisite, Foods 4. Fall, Winter and Spring quarters. Time and credit to be arranged with instructor in charge.

*Professor Whitacre*

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## GEOLOGY.

PROFESSOR WILLIAM PETERSON.

MR. CARDER.

### VOCATIONAL COURSE

a. PHYSIOGRAPHY. Special emphasis on the intermountain region. Given if ten or more students apply. Winter quarter. Three credits.

M. W. F. 8:00.

*Mr. Carder*

### SENIOR COLLEGE COURSES

2. GENERAL GEOLOGY. Dynamic strucltional and historical geology. The changes the earth's surface is now undergoing and the forces which produce them as a means of interpreting the past. Laboratory study of the common rocks and rock-forming minerals, with special stress on the soil product resulting from rock disintegration. A careful study of the geological development of the North American continent. Field trips with written reports. Prerequisites, Chemistry 1, Zoology 2, Sec. 1. Fall, Winter and Spring quarters. Three credits each quarter.

T. Th. S. 9:00.

*Professor Peterson*

Sec. 3. GEOLOGY 2 will be repeated during the Winter and Spring quarters if ten or more students apply for it. Five credits each quarter.

Daily, except Thursday 10:00.

*Mr. Carder*

3. ECONOMIC GEOLOGY. The first part of the course will deal with the non-metals with special emphasis on mineral fertilizers; the second part, with metals, their origin and economic



uses. Any quarter may be taken without the others. Prerequisite, Geology 2. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 9:00.

*Mr. Carder*

4. MINERALOGY. Individual laboratory work in blow-pipe analysis and determinative mineralogy. Prerequisite, Chemistry 1. One recitation and two laboratory periods. Students may start any time. Credit in proportion to work. Given if ten or more students apply.

*Mr. Carder*

5. GEOLOGY OF GROUND WATER. A study of structure to determine the cause of springs, artesian wells, etc. Structural characteristics that will yield water, either through tunneling or boring. Prerequisites, Geology 1 or 2 and Physics 1. Spring quarter. Five credits.

Daily, except Thursday 11:00.

*Professor Peterson*

6. ADVANCED PHYSIOGRAPHY. For students who wish a more complete knowledge of physiographic features and processes than can be given in Geology "a." Prerequisite, Geology 2. Fall quarter. Three credits.

T. Th. S. 10:00.

*Mr. Carder.*

7. PETROLOGY. 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 and Chemistry 1. Lectures, reading and laboratory work. Any quarter. Credit to be arranged.

*Mr. Carder*

8. Field methods necessary in mapping the detailed geology of an assigned area. Time and credit to be arranged.

*Professor Peterson.*

9. LOCAL GEOLOGY. The relief of Utah and bordering states. Relation of the country rock and physical features to productive land areas. One piece of relief modeling may be required from each student. Prerequisite, Geology 2. Full quarter. Three hours. Two or three credits. Laboratory to be arranged.

*Professor Peterson and Mr. Carder*

10. GEOLOGY. Relief modeling, methods by which any topographic map may be converted into a true relief model, including either the geology or detailed geography as the student may select. Either Fall or Winter quarter. Two or three credits.

Hours to be arranged.

*Professor Peterson*

11. AGRICULTURAL GEOLOGY. Local geology in the valleys of Utah. A detailed study will be made of the rock formations surrounding each valley and the character of soils from the disintegration of these rocks. The course will be prefaced by a study of structural and relief features of Utah as well as a general survey of the drainage systems as they have influenced the disposition of disintegrated rock in the forming of soil. Fall quarter. Three credits.

T. Th. S. 11:00.

*Professor Peterson.*

12. ENGINEERING GEOLOGY. Dynamical and structural geology as it applies to construction work. Special attention is given to materials affecting road construction, dams and excavations. Winter Quarter. Five credits.

Daily, except Thursday 11:00.

*Professor Peterson*

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## HISTORY

PROFESSOR DAINES.

PROFESSOR ROBINSON.

### JUNIOR COLLEGE COURSES.

3a. ENGLISH HISTORY. Political and social history of England to 1485. Fall quarter. Three credits.

M. W. F. 9:00.

*Professor Robinson*

3b. ENGLISH HISTORY. Political and social history of England 1485 to 1815. Winter quarter. Three credits.

M. W. F. 9:00.

*Professor Robinson*

3c. ENGLISH HISTORY. Political and social history of the British Empire, 1815 to the present. Particular attention will be paid to Anglo-American relations and to England's part in the war of 1914. Spring quarter. Three credits.

M. W. F. 9:00.

*Professor Robinson*

4a. MODERN EUROPEAN HISTORY. Political and social history of Modern Europe to 1815. Fall quarter. Three credits.

T. Th. S. 9:00.

(Not given 1921-22.)

*Professor Daines*

4b. MODERN EUROPEAN HISTORY. Political and social history of Modern Europe 1815-1914. Fall quarter. Three credits.

T. Th. S. 9:00.

*Professor Daines*

4c. RECENT HISTORY. A study of the fundamental and the immediate causes of the World War. Winter quarter. Three credits.

T. Th. S. 9:00.

*Professor Daines*

4d. RECENT HISTORY. The diplomacy and the important events of the World War, the negotiations for peace, the League of Nations and the international problems arising since the war are investigated. Spring quarter. Three credits.

T. Th. S. 9:00.

*Professor Daines*

5. WESTERN UNITED STATES HISTORY. The Rocky Mountain and Pacific Coast History since the Spanish period. Special attention is paid to Utah history. Fall quarter. Three credits.

T. Th. S. 8:00.

*Professor Daines*

6a. ANCIENT HISTORY. History of the development of Grecian civilization with a short survey of the earlier civilizations that influenced it. Fall quarter. Three credits.

(Not given 1921-22.)

*Professor Daines*

6b. ANCIENT HISTORY. History of Rome. Spring quarter. Three credits.

(Not given 1921-22.)

*Professor Daines*

-10. HISTORY OF ART. (Art 6.) Winter quarter. Three credits.

M. W. F. 11:00.

*Professor Powell*

11a. HISTORY OF DOMESTIC ARCHITECTURE. (Household Administration 11a.) Fall quarter. Three credits.

M. W. F. 9:00.

(Not given 1921-22.)

*Professor Fletcher*

11b. HISTORY OF FURNITURE. (Household Administration 11b.) History of interior decoration and furniture styles. Winter quarter. Three credits.

T. Th. S. 11:00.

*Professor Fletcher*

#### SENIOR COLLEGE COURSES.

8. HISTORY OF AGRICULTURE. (Agronomy 14.) History of Agriculture with special emphasis on special and scientific phases; the successive steps by which modern agriculture has attained its present status. Winter quarter. Two, three or four credits.

M. W. F. 11:00.

*Professor Stewart and Mr. ———*

12. CONSTITUTIONAL HISTORY OF THE UNITED STATES. A history of the origins and development of our fundamental laws and institutions. Fall and Winter quarters. Three credits each quarter.

(Not given 1921-22.)

13a. UNITED STATES HISTORY. Political and social history of America to 1800. Fall quarter. Three credits.

M. W. F. 8:00.

*Professor Daines*

13b. UNITED STATES HISTORY. A continuation of 13a, to 1865. Winter quarter. Three credits.

M. W. F. 8:00.

*Professor Daines*

13c. UNITED STATES HISTORY. A continuation of 13b to the present time. Spring quarter. Three credits.

M. W. F. 8:00.

*Professor Daines*

15. WORLD POLITICS. (Political Science 10) A study of the methods and practices governing international relations. Alternates with Political Science 8. Fall and Winter quarters. Three credits each quarter.

M. W. F. 9:00.

*Professor Daines*

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## HORTICULTURE

PROFESSOR M. C. MERRILL

\*ASSISTANT PROFESSOR ABELL

MR. EMIL HANSEN

MR. HARMON.

The following courses are required of all students majoring in Horticulture: 2, 4, 5, 8, 11, 12, 14 and 16.

### VOCATIONAL COURSES.

a. FRUIT GROWING IN THE WEST. A study of the principles and practices governing fruit production in arid regions. Fall quarter. Three credits.

Lec. W. F. 8:00; lab. M. 2:00 to 5:00.

*Professor Merrill and Mr. Harmon*

b. PRACTICAL HORTICULTURE. Horticultural operations. Budding, grafting, pruning, spraying, plant propagation, greenhouse and nursery practice. Winter quarter. Three credits.

Lec. W. F. 8:00; lab. M. 2:00 to 5:00.

*Professor Merrill and Mr. Harmon*

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\*On leave of absence.



c. THE PRINCIPLES OF GARDENING. Planning, planting and care of gardens. Study of varieties and garden operations. Production emphasized. Spring quarter. Three credits.  
Lec. W. F. 8:00; lab. M. 2:00 to 5:00.

*Professor Merrill and Mr. Harmon*

#### JUNIOR COLLEGE COURSES.

1a, 1b, 1c. PRINCIPLES OF HORTICULTURE. Course in general horticulture designed especially for agricultural students not specializing in horticulture but who desire to become acquainted with the general field of horticultural information and practice. Fall, Winter and Spring quarters. Each quarter's work is complete and may be taken separately. Prerequisite, Botany 2. Three credits each quarter.

Fall quarter (1a) Orchard and Small Fruits.

Lec. T. Th. 9:00; lab. W. 2:00 to 5:00.

*Professor Merrill and Mr. Harmon*

Winter quarter (1b) Horticultural Technic and Plant Propagation.

Lec. T. Th. 9:00; lab. W. 2:00 to 5:00.

*..Professor Merrill and Mr. Hansen*

Spring quarter (1c) Vegetable and Landscape Gardening. This course is also planned to meet the needs of Home Economics students.

Lec. T. Th. 9:00; lab. W. 2:00 to 5:00.

*Professor Merrill and Mr. Harmon*

2. POMOLOGY. Principles underlying home and commercial fruit growing. Fall quarter. Three credits.

M. W. F. 9:00.

*Professor Merrill*

3. PLANT PROPAGATION. Methods in horticultural technic. Studies in budding, grafting, reproduction by seeds and vegeta-

tive parts and nursery practice. Prerequisite, Botany 1 or 2. Winter quarter. Three credits.

(Not given 1921-22.)

4. PRACTICAL POMOLOGY. Practical problems pertaining to orchard practice—pruning, frost injury and prevention, planting, spraying, thinning, fertilizing and growth of cover crops. Prerequisite, Horticulture 2. Spring quarter. Three credits.

(Given in alternate years. Not given 1921-22.)

5. OLERICULTURE. Principles and practices underlying production of vegetable crops and methods of handling for home and commercial purposes. Study of varieties and their adaptations. Fall quarter. Three credits.

Lec. W. F. 11:00; lab. T. 2:00 to 5:00.

*Professor Merrill and Mr. Harmon*

6. PLANTS UNDER CLASS. Vegetable forcing. Crops grown in cold frames, hot-beds and greenhouses. Soil composting and managng. Prerequisite, Horticulture 5. Winter quarter. Three credits.

(Not given 1921-22.)

7. SMALL FRUITS. Propagating, cultivating, pruning, harvesting and marketing of berries, currants and grapes. History and characteristics of varieties. Spring quarter. Three credits.

Lec. W. F. 10:00; lab. F. 2:00 to 5:00.

*Professor Merrill and Mr. Harmon*

8. LANDSCAPE GARDENING. Principles underlying home and city beautification. Preparation of ground, selection and grouping of ornamental plants, care of lawns, designing of plans. Prerequisite, Botany 2. Fall quarter. Three credits.

(Not given 1921-22.)

#### SENIOR COLLEGE COURSES.

1. GENERAL HORTICULTURE. Study of the various phases

of horticulture from the view point of correlation with general and specialized farming. Intended primarily for Senior College Agricultural students not specializing in horticulture. Spring quarter. Five credits.

Lec. M. W. F. 9:00; lab. T. Th. 2:00 to 5:00.

*Professor Merrill and Mr. Harmon*

9. LANDSCAPE DESIGN. Advanced practice in landscape art. Prerequisite, Horticulture 8. Winter quarter. Three credits.

(Not given 1921-22.)

10. HOME FLORICULTURE. Propagation and care of plants useful for home decoration. Exterior plantings, flower beds and borders. Designed for students in Home Economics as well as for horticultural students. Spring quarter. Three credits.

Lec. T. Th. 11:00; lab. F. 2:00 to 5:00.

*Professor Merrill and Mr. Hansen*

11. SYSTEMATIC POMOLOGY. Variety characteristics and adaptations. Fruit scoring and preparation for judging fruit exhibits. Prerequisites, Horticulture 2 and 4. Fall quarter. Three credits.

Hours to be arranged.

*Professor Merrill*

12. PLANT BREEDING. Fundamentals of Mendelism, genetics and biometry. Study of hereditary characters, environmental variations and practical plant breeding. Prerequisites, Horticulture 3 and Botany 2. Spring quarter. Five credits.

(Not given 1921-22.)

13. HORTICULTURAL BY-PRODUCTS. Utilization of waste materials. Bio-chemistry of processes in plant products. Ripening, storage, decay, fermentation, canning operations. Prerequisites, Horticulture, 2, 5 and 7, Botany 4, Chemistry 3 and Bacteriology 1. Fall quarter. Four credits.

(Not given 1921-22.)

14. HISTORY OF CULTIVATED PLANTS. Historical consideration of wild plants in nature from earliest times and their gradual adaptation to the uses of man. Winter quarter. Two credits.

W. F. 10:00.

*Professor Merrill*

15. EXPERIMENTAL HORTICULTURE. Preparation for research in horticulture. History and tendencies of horticultural research throughout the world. Critical study of bulletins, theses and research publications. Extensive reading and reports. Reading knowledge of French and German desirable. Prerequisites, Horticulture 2, 3, 4, 5, 6, 7, 11 and 12, Botany 2 and 4, Chemistry 3 and Entomology, 1. Five credits. Spring quarter.

Hours to be arranged.

*Professor Merrill*

16. SEMINAR. Review of current literature. For advanced students. One hour a week. One credit each quarter.

Time to be arranged.

*Professor Merrill*

17. RESEARCH. For students with adequate preparation. Time and credit to be arranged.

*Professor Merrill*

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## HOUSEHOLD ADMINISTRATION

ASSISTANT PROFESSOR AMY L. MERRILL

PROFESSOR FLETCHER.

PROFESSOR PEDERSEN.

PROFESSOR P. E. PETERSON.

PROFESSOR WHITACRE.

PROFESSOR MOEN.

PROFESSOR PRESTON, M. D.

ASSISTANT PROFESSOR DANCEY.

ASSISTANT PROFESSOR KEWLEY.

Students doing their major work in Household Administration must include at least 21 hours of Senior College work in this department.

## JUNIOR COLLEGE COURSES

1. PERSONAL ACCOUNTS. Keeping accurate records of each student's expenditures during college life; a critical and comparative study of students' spending habits as shown by the actual accounts kept; consideration of the principles underlying wise buying. Open to all college women. Fall, Winter and Spring quarters. One credit each quarter.

Friday 12:00.

*Professors Whitacre and Moen*

(Any college student who has received 3 hours credit for the above course may earn 1 hour of credit by keeping records of one year's expenditures during college life, using for the record the form employed for class use and doing the work under supervision of the instructor in charge of Personal Accounts.)

3. HOME HEALTH AND NURSING. Special emphasis on the prevention of disease and on the building up of the highest degree of health as the principal function of the home nurse. The treatment of functional disturbances, injuries, wounds, etc., receive due attention. Lectures, discussions and laboratory demonstrations. The reading of reference works, and special reports are required. Winter and Spring quarters. Three credits each quarter.

Lec. T. Th. 9:00; lab. any afternoon 2:00 to 5:00.

*Assistant Professor Dancey*

11a. HISTORY OF DOMESTIC ARCHITECTURE. (History 11a.) History of the house from primitive times to the present. Fall quarter. Three credits.

Not given 1921-22.

*Professor Fletcher*

11b. HISTORY OF FURNITURE. (History 11b). History of interior decoration and furniture styles. Spring quarter. Three credits.

T. Th. S. 11:00.

*Professor Fletcher.*



SENIOR COLLEGE COURSES.

20. HOUSEHOLD MANAGEMENT. A study of the organization and management of the household with a view to securing the maximum of family welfare. Consideration of values and division of family income. *Assistant Professor Kewley*

22a. HOME FURNISHING. (Art. 22a.) Home furnishing and decoration. Consideration of the principles governing good taste in house exteriors and garden designs, wall decoration, floors, ceilings, color and furniture selection and arrangements. Prerequisites, Art 1, 21, 2, or their equivalents. Fall quarter. Four credits.

Lec. T. Th. S. 9:00; lab. Th. or F. 2:00 to 5:00.

*Professor Fletcher*

22b. HOME FURNISHING. (Art 22b). Textiles and drapery, tableware, pottery and bric-a-brac, pictures, sculptures, flowers will be treated upon together with the assembling of all features which go to make the home beautiful. Prerequisite, Household Administration 22a. Winter quarter. Four credits.

Lec. T. Th. S. 9:00; lab. Th. or F. 2:00 to 5:00.

*Professor Fletcher.*

23. HOUSEWIFERY. Six weeks are spent in residence in the Practice Home, where an opportunity is given to apply to home conditions the principles of home economics as studied in the College. The remaining six weeks of the quarter the study of the business of the home will be taken up, including practice in laundry work. A fee of \$6.00 per week will be charged while in residence at the Practice Home. Three lectures and one laboratory during time not in residence. Any quarter. Five credits.

Lec. M. W. F. 9:00; lab. to be arranged.

*Assistant Professor Merrill.*

25. MOTHERCRAFT AND CHILD WELFARE. Growth and development of the foetus, correct and incorrect impressions concerning the prenatal influence, physiological changes during pregnancy, care of the expectant mother, care of the infant, causes and prevention of infant mortality and vital questions of the adolescent period will be considered. Spring quarter. Three credits.

M. W. F. 10:00.

*Professor Preston.*

27. HOUSEHOLD ACCOUNTS. (Accounting 7.) The practical application of accounting principles to home problems. Two lectures and six hours laboratory work per week. Spring quarter. Four credits.

Lec. T. Th. 1:00.

*Professor Peterson*

30. LITERATURE FOR CHILDREN. Study of the child and institutional factors affecting him; the child and the book; the adolescent and the book; types of literature for children; contributions to children's literature of Greece, Rome and other countries. Spring quarter. Three credits.

M. W. F. 11:00.

*Professor Pedersen*

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## IRRIGATION AND DRAINAGE

PROFESSOR ISRAELSEN.

PROFESSOR RAY B. WEST

ASSOCIATE PROFESSOR WINSOR.

MR. FIFE.

Students who major in Irrigation and Drainage will be required to complete courses 1, 2, 4 and 6 or their equivalents and to present a thesis concerning some special problem to be assigned by the Department, as announced in Course 8.

## VOCATIONAL COURSES.

a. FARMERS' COURSE IN IRRIGATION AND DRAINAGE. Practical information on measurement of irrigation water, construction of small headgates and ditches, methods of handling irrigation water on different types of soil and common problems in farm drainage. Winter quarter. Three credits.

M. W. F. 8:00.

*Associate Professor Winsor*

b. WATER MASTERS' SHORT COURSE. Practical information concerning water measurement, capacities of soils, water requirement of crops, preparation of land for irrigation, boring wells, installation of pumps for irrigation purposes, water right doctrines and other equally important irrigation problems. One week beginning January 16.

*Professor Israelsen, Associate Professor Winsor, Mr. Fife and others.*

## JUNIOR COLLEGE COURSES.

1. IRRIGATION AND DRAINAGE PRACTICE. Water measurement, effect of soil and plant on time and frequency of irrigation, duty of water, design of farm ditches and preparation of land for irrigation, pumping for irrigation and methods of farm drainage. This course may be used as a major or a minor in the Department of Agronomy. Fall quarter for students in Agricultural Engineering. Spring quarter for students in Agriculture.

Sec. 1. Fall quarter; Sec. 2. Spring quarter. Five credits.

Lec. M. W. F. 11:00; lab. M. W. or W. F. 2:00 to 5:00.

*Mr. Fife*

2. HYDRAULICS. Laws of liquids in motion and at rest, flow in natural and artificial channels and elementary principles of water power development. Prerequisite, Mathematics 2 or its equivalent. Fall and Winter quarters. Three credits each quarter.

Lec. T. Th. 8:00, lab. M. 2:00 to 5:00.

*Mr. Fife*

## SENIOR COLLEGE COURSES.

3. DESIGN OF DRAINAGE SYSTEMS. Preliminary survey, location of drains, flow in drains and in open channels and construction of drainage systems with special reference to the drainage of irrigated lands. Prerequisite, Hydraulics, Spring quarter. Five credits.

Lec. T. Th. S. 9:00; lab. T. Th. 2:00 to 5:00.

*Associate Professor Winsor*

4. DESIGN OF IRRIGATION SYSTEMS. Sources of water supply, diversion works, canal alignment and cross section flumes, drops and spillways. Prerequisites, Hydraulics and Strength of Materials. Fall and Spring quarters. Five credits each quarter.

Lec. M. W. F. 8:00; lab. T. Th. 2:00 to 5:00.

*Professor Israelsen*

5. MANAGEMENT AND OPERATION OF IRRIGATION SYSTEMS. Delivery of water to irrigators, annual water charges, operation costs. Winter quarter. Three credits.

M. W. F. 11:00.

*Associate Professor Winsor*

6. IRRIGATION INSTITUTIONS. (Given by the Departments of Irrigation and Drainage and Political Science, jointly.) Water right doctrines, laws governing the adjudication and acquirement of water rights and the distribution of water; organization of irrigation enterprises. Prerequisite or parallel, a general course in Economics or Sociology. Winter and Spring quarters. Three credits each quarter.

T. Th. S. 8:00.

*Winter quarter, Professor Israelsen*

*Spring quarter, Judge Bullen*

7. SEMINAR. Papers and discussions upon problems concerning some phase of irrigation or drainage development. Required of students who major in Irrigation and Drainage. Winter quarter. One credit.

F. 12:00.

*Professor Israelsen, Professor West, Associate Professor Winsor and Mr. Fife*

8. RESEARCH. Any senior or graduate student who majors in Irrigation and Drainage is required to elect a problem for investigation and to prepare a thesis. Hours and credits to be arranged with instructor.

*Professor Israelsen, Professor West and Associate  
Professor Winsor*

(Note)—Agronomy 6 (Soils) and Geology 5 (Ground Water) may be applied toward a major or a minor in the Department of Irrigation and Drainage, School of Agricultural Engineering.

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## LIBRARY ECONOMY

MISS HATTIE SMITH.

1. GENERAL REFERENCE. Classification and arrangement of books; the card catalog; reference books. Text: "List of Reference Books in the Utah Agricultural College Library." Winter and Spring quarters. One credit each quarter.

T. 1:00.

*Miss Smith*

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## MARKETING

PROFESSOR ROBINSON.

PROFESSOR WANLASS.

PROFESSOR M. H. HARRIS

MR. CLAWSON.

## VOCATIONAL COURSE

a. MARKETING OF FARM PRODUCTS. An elementary course dealing with the methods and organization used in the marketing of farm crops. Winter and Spring quarters. Three credits each quarter.

M. W. F. 10:00.

*Mr. Clawson*



## JUNIOR COLLEGE COURSES

1. **PSYCHOLOGY OF ADVERTISING AND SELLING.** A study of the chief human instincts, needs and emotions. How to use the laws of psychology may be applied to business. Prerequisite, Economics 1 or 2. Fall quarter. Three credits.

M. W. F. 11:00.

*Professor Robinson*

2. **ADVERTISING.** A first course, designed to meet the needs of all students in business who want a general knowledge of advertising. The literature of advertising, the makeup of advertisements for newspapers and magazines; much practical experience in the writing of advertisements. Prerequisites, Marketing 1 and English 7, (Business English). Winter quarter. Three credits.

Lec. M. W. 11:00; lab. F. 2:00 to 4:00.

*Professor Robinson*

3. **SALESMANSHIP.** A first course, designed to meet the needs of students who want a general knowledge of the principles underlying selling. Demonstration sales. Prerequisite, Marketing 1. Spring quarter. Three credits.

Lec. M. W. 11:00; lab. F. 2:00 to 4:00.

*Professor Robinson*

## SENIOR COLLEGE COURSES

4. **AGRICULTURAL COMMERCE.** This course will cover the basic facts necessary to a clear understanding of the problems in marketing. Supply and demand of farm products, prices and production, the economic relations of the farmer, the middleman and the consumer will receive special consideration. Prerequisite, Economics 1 or 2. Fall quarter. Three credits.

M. W. F. 9:00.

*Professor Wanlass*

5. **MARKETING OF FARM PRODUCTS.** (Agricultural Economics 9.) Problems of marketing specific farm products, such as livestock, grains, potatoes, hay, dairy products, etc., will be

studied from the standpoint of the economic forces which give rise to such problems. Possibilities of improvement of the present systems will be considered. Prerequisite, Economics 1 or 2. Winter quarter, three credits.

M. W. F. 9:00.

*Professor Wanlass*

6. COOPERATION IN AGRICULTURE. (Agricultural Economics 10.) Growth of the cooperative movements with the viewpoint of showing their strength and weakness; typical cooperative enterprises will be studied in detail. Principles of cooperation and the practicability of their application will receive first consideration. Prerequisites, Economics 1 and 2. Spring quarter. Three credits.

M. W. F. 9:00.

*Professor Wanlass*

7. GEOGRAPHY OF COMMERCE. This course will deal with geography as related to commerce. The environmental factors—natural resources, climate, population, etc., will be studied from the commercial viewpoint. An analysis of the resources and industries and their geographical distribution will be made. Typical industries will be followed from the production of their raw materials to the marketing of their finished products. Spring quarter. Three credits.

T. Th. S. 11:00.

*Professor Harris*

8. ADVERTISING AND SELLING. An advanced course. The factors which underlie the advertising campaign; planning the advertising campaign; the duties of the advertising manager; the advertising agency; periodical media, rates, circulation, etc., the duties of the sales manager, sales policies, routing salesmen, etc. Prerequisites, Marketing 1, 2 and 3. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 10:00.

*Professor Robinson*

9. ADVANCED BUSINESS ENGLISH. The writing of sales letters, preparation of booklets, circulars and direct mail adver-

tising material of all kinds. Prerequisites, English 7 (Business English), Marketing 1, 2 and 3. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 9:00.

*Professor Robinson*

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## MATHEMATICS

.. PROFESSOR SAXER

MR. McDONALD.

MR. CARDER.

### VOCATIONAL COURSES.

a. VOCATIONAL ALGEBRA. A brief course in elementary algebra. Daily for twelve weeks during the Summer quarter.

b. PLANE GEOMETRY. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F., 9:00.

*Mr. McDonald*

### JUNIOR COLLEGE COURSES.

2. ELEMENTARY ANALYSIS. Prerequisites, high school algebra and geometry. Fall, Winter and Spring quarters. Three credits each quarter.

Fall quarter. Elementary graphical methods for presenting facts. Elementary theory of statistics. Relation of the graph to algebra, arithmetic and geometry. Review of elementary algebra.

Winter quarter. Graphical and algebraical solution of triangles. Trigonometry and the use of trigonometric tables. Use of logarithms, slide rule, etc.

Spring quarter. Freshman algebra with applied problems selected from the various departments of the College.

Sec. 1, M. W. F. 8:00.

Sec. 2, M. W. F. 11:00.

*Professor Saxer*

4. SOLID GEOMETRY. Spring quarter. Five credits.

Daily, except Thursday, 10:00.

*Mr. McDonald*

5. COLLEGE ALGEBRA. Prerequisite, one and one-half years of high school algebra. Fall quarter. Five credits.

Daily, except Thursday, 10:00.

*Mr. McDonald*

6. TRIGONOMETRY. Prerequisite, Mathematics 5. Winter quarter. Five credits.

Daily, except Thursday, 10:00.

*Mr. McDonald.*

#### SENIOR COLLEGE COURSES.

- 7a. ANALYTICAL GEOMETRY. Prerequisite, Mathematics, 2 or 6. Fall quarter. Three credits.

M. W. F. 9:00.

*Professor Saxer*

- 7b. DIFFERENTIAL CALCULUS. Prerequisite, Mathematics 7a. Winter quarter. Three credits.

M. W. F. 9:00.

*Professor Saxer.*

- 7c. INTEGRAL CALCULUS. Prerequisite, Mathematics 7b. Spring quarter. Three credits.

M. W. F. 9:00.

*Professor Saxer*

8. DIFFERENTIAL EQUATIONS. Prerequisite, Mathematics 7. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 11:00.

*Professor Saxer*

10. GENERAL ASTRONOMY. Prerequisites, Physics 1 and Mathematics 2 or 6. Spring quarter. Five credits.

Daily, except Saturday, 8:00.

*Professor Saxer and Mr. Carder*

12. MATHEMATICAL THEORY OF INVESTMENT. Prerequisite, Mathematics 2 or 5. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 1:00.

*Professor Saxer*

**MECHANIC ARTS****FORGING AND GENERAL BLACKSMITHING**

ASSISTANT PROFESSOR EGBERT.

**VOCATIONAL COURSES**

An average of one third of the time in all courses in forging is spent demonstrating and lecturing.

a, b, c. **FORGE PRACTICE.** Forging, welding, tempering, tool making and other operations essential to forge shop work. Fall, Winter and Spring quarters.

Sec. 1 and 2. Daily 8:00 to 11:00. Six credits each quarter.

Sec. 3 and 4. Daily except Saturday 2:00 to 5:00. Five credits each quarter.

*Assistant Professor Egbert*

d. **SHORT COURSE.** Select work from Forge Practice "a," for agricultural, automobile and tractor students who cannot spend each day in the shops. Fall, Winter and Spring quarters. Sections 1, 2 and 3, three credits each quarter. Section 4, two credits each quarter.

Sec. 1, M. W. F. 8:00 to 11:00.

Sec. 2, T. Th. S. 8:00 to 11:00.

Sec. 3, M. W. F. 2:00 to 5:00.

Sec. 4, T. Th. 2:00 to 5:00.

Sections 1 and 3 reserved for course "d" men in Fall and Spring quarters. Beginners taken in for all four sections, Winter quarter.

*Assistant Professor Egbert*

e. **ADVANCED SHORT COURSE.** For students who have had some work, but cannot fit the regular schedule. Work selected from regular courses. Time and credit to be arranged with the instructor.

*Assistant Professor Egbert*

**JUNIOR COLLEGE COURSES**

1a, 1b, 1c. **FORGE SHOP OPERATIONS.** Advanced forging



and general repair work, including plow work, spring work, axle and tire setting and horseshoeing. Prerequisite, Forge Practice. Fall, Winter and Spring quarters. Five credits each quarter.

Sec. 1. Daily except Saturday, 8:00 to 11:00.

Sec. 2. Daily except Saturday, 2:00 to 5:00.

*Assistant Professor Egbert*

2a, 2b, 2c. ADVANCED SHOP PRACTICE. The student may emphasize any line of blacksmith work that suits his particular needs. Prerequisite, Forge Shop Operations. Credit also in Senior College. Fall, Winter and Spring quarters. Five credits each quarter.

Sec. 1. Daily except Saturday, 8:00 to 11:00.

Sec. 2. Daily except Saturday, 2:00 to 5:00.

*Assistant Professor Egbert*

7, 8, 9. AUTOMOBILE REPAIRS. Repairing and building bodies, wheels and springs. Prerequisite, Forge Shop Operations. Fall, Winter and Spring quarters. Five credits each quarter.

Sec. 1. Daily except Saturday 8:00 to 11:00.

Sec. 2. Daily except Saturday, 2:00 to 5:00.

*Assistant Professor Egbert*

FOUNDRY. Operated for demonstration and the making of castings. If a sufficient number of students apply, the foundry will be run for instructional purposes also.

## MACHINE WORK

ASSOCIATE PROFESSOR NEWHEY.

MR. STEVENS.

## VOCATIONAL COURSES.

a, b, c. MACHINE SHOP PRACTICE. Lathe, planer, shaper, drill-press operation, the use of hand tools, laying out and fitting machine parts and other operations essential to machine shop work. The shop work is supplemented each quarter by a course in Shop Technology and Shop Mathematics.

Sec. 1 and 2, seven credits each quarter for both sections.

Sec. 3 and 4 six credits each quarter, for both sections.

Schedule:

Sec. 1, T. Th. S. 8:00 to 11:00.

Sec. 2. M. W. F. 8:00 to 11:00.

Sec. 3. T. Th. 2:00 to 5:00.

Sec. 4. M. W. F. 2:00 to 5:00.

*Associate Professor Newey and Mr. Stevens*

d. SHORT COURSE. Select work from Machine Shop Practice including Shop Technology and Shop Mathematics. Sections 1, 2, 4, four credits. Section 3, three credits.

Sec. 1 or 4—Fall and Spring quarters.

Sec. 1, 2, 3 or 4—Winter quarter.

*Associate Professor Newey and Mr. Stevens*

e. ADVANCED SHORT COURSE. Select work from Machine Shop Practice including Shop Technology and Shop Mathematics. Prerequisite, Short Course. Four credits.

Sec. 2 or 4—Fall and Spring quarters.

Sec. 1, 2 or 4—Winter quarter.

*Associate Professor Newey and Mr. Stevens*

JUNIOR COLLEGE COURSE

1a, 1b, 1c. GENERAL MACHINE WORK. Advanced lathe and planer work, milling, gear cutting, tool grinding, the building of simple machines and automobile parts. Throughout the course practical talks and lectures are given on modern shop methods. Prerequisite, Machine Shop Practice, a, b, c.

Sec. 1 and 2, six credits each quarter for both sections.

Sec. 3 and 4, five credits each quarter, for both sections.

*Associate Professor Newey and Mr. Stevens*

SENIOR COLLEGE COURSES.

2a, 2b, 2c. TOOL MAKING. This course includes practice in making and grinding arbors, standard gauges, tops, reamers,

milling cutters, etc., and in planning and building special tools.  
Prerequisites, General Machine Work 1a, 1b, 1c.

Sec. 1 and 2, six credits each quarter for both sections.

Sec. 3 and 4, five credits each quarter, for both sections.

*Associate Professor Newey and Mr. Stevens*

**MECHANISM.** Time and credits to be arranged.

Note: For unfinished courses, credit will be given according to work done. Not less than two credits will be given.

### **MECHANICAL DRAWING**

PROFESSOR J. S. POWELL

PROFESSOR RAY B. WEST.

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

Drawing rooms are open daily from 8:00 to 5:00. Supervised instruction given from 8:00 to 11:00. Three hours a week are required for each credit.

### **JUNIOR COLLEGE COURSES.**

1. **AGRICULTURAL DRAWING.** One lecture and four hours laboratory work.

1a. **FARM CONSTRUCTION.** Working drawings of feed racks, gates, etc., in straight line projection. Lettering and reading of plans. Fall or Winter quarter. Two credits.

Lec. T. 10:00.

1b. **FARM STRUCTURES.** Drawing and designing of poultry houses, swine houses, granaries, garages and other farm buildings. Prerequisite, 1a. Winter or Spring quarter. Two credits.

Lec. T. 10:00.

1c. **MAPS AND TOPOGRAPHICAL DRAWING.** Drawing of grounds, gardens and farm maps. Prerequisite 1b. Spring quarter. Two credits.

Lec. T. 10:00.

*Professor Powell and Mr. \_\_\_\_\_*

For advanced farm structures see Rural Architecture 8.

2. DRAWING FOR BUILDERS AND MECHANICS. These courses are planned to correlate with the work of the student in the shops. One lecture and four hours laboratory work.

2a. DRAWING OF SHOP EXERCISES. Freehand sketching and rendering in straight line projection. Reading of plans and lettering. Fall or Winter quarter. Two credits.

Lec. T. 1:00.

2b. STRUCTURAL DETAILS. Drawing of walls, windows, roof details and furniture, forging exercises and machine parts. Prerequisite 2a. Winter or Spring quarter. Two credits.

Lec. T. 1:00.

2c. BUILDING DETAILS. Drawing of simple plans, elevations and details. Problems in carriage and automobile bodies and machine parts. Spring quarter. Two credits.

Lec. T. 1:00.

*Professor Powell and Mr.———*

3. MECHANICAL DRAWING. One lecture and eight hours laboratory work.

3a. THE USE AND CARE OF INSTRUMENTS. Applied geometry and orthographic projection. Fall or Winter quarter. Three credits. Lec. T. 10:00.

3b. DEVELOPING SURFACES AND INTERSECTIONS. Prerequisite 3a. Winter or Spring quarter. Three credits.

Lec. T. 10:00.

3c. PICTURAL REPRESENTATION. Isometric, oblique and cabinet projections; perspective and shades and shadows. Spring quarter. Three credits.

Lec. T. 10:00.

4. ARCHITECTURAL DRAWING. The study of architectural problems and designs; the classic orders of architecture and

rendering in wash, water colors, crayons, pencil and pen and ink. Prerequisite Drawing 3a, 3b, 3c.

4a. ARCHITECTURAL CONSTRUCTION. Designing a cottage, drawing the plans, elevations and sections. Details of walls, roof, cornice, windows, doors, stairs, fireplace and cabinets and making specifications and bill of materials. Fall, Winter and Spring quarters. Five credits each quarter.

4b. ORDERS OF ARCHITECTURE. Studies and drawing and rendering in wash and water colors of problems of the different classic orders. Five credits.

4c. ARCHITECTURAL DESIGN. This course consists of the study and rendering of original designs by the students. These studies are partly from programs issued by the instructor and partly from the programs issued by the Beaux Arts Institute of Design of New York. The finished designs of the latter group are submitted to the juries in New York in competition with those of students of other schools of architecture. A problem is given the student. He is obliged to work a number of hours by himself, making a sketch; each student then takes a tracing of his sketch, leaving the original with the instructor. He then works up the sketch with criticism from the instructor and fellow students, finishing the design with as little change as possible excepting to perfect the proportions and details. Each problem will take about six weeks. The finished drawings are judged by a jury and prizes and mentions awarded.

*Professor Powell*

DESIGN CLASS C. Order problems of the Beaux Arts Institute or similar problems arranged by the instructor. Three hours daily for six weeks. Three credits.

*Professor Powell*



DESIGN CLASS B. Class B plan problems and Class B sketch problems of the Beaux Arts Institute or similar problems arranged by the instructor. Three hours daily for six weeks. Three credits.

Three credits.

*Professor Powell*

DESIGN CLASS A. Class A Plans and Sketch problems of the Beaux Arts Institute or similar problems arranged by the instructor. Three hours daily for six weeks. Three credits.

*Professor Powell*

5. MACHINE DRAFTING. The drawing of machine shop problems and machines. Prerequisites 3a, 3b, 3c.

5a. Drawing of fastenings such as bolts, screws, keys, rivets and pipe. Any quarter. Three credits.

5b. DETAIL DRAWINGS. Drawing of details and sections and making of assembly drawings from details and dimensioning studies. Any quarter. Three credits.

5c. WORKING DRAWINGS. Special representation, drawing of cams and gears and assembly and detail drawings. Any quarter. Three credits.

*Professor Powell*

6. MAP AND TOPOGRAPHICAL DRAWING. Plotting of surveys. Drawing of topographical symbols, contours and profiles. Lettering and tinting. Prerequisite, Mechanical Drawing 1, 2 or 3. Three hours in drawing for one credit. Student may elect one or more credits. Any quarter.

*Professor Powell*

7. ENGINEERING DRAWING. The drawing of engineering structures in orthographic projection. Prerequisite, Drawing 1, 2 or 3. Any quarter. Three credits.

*Professor West*

8. DESCRIPTIVE GEOMETRY. Of practical value to the me-

chanic and engineer in reading working drawings and in solving graphical problems. The point, line, plane and simple solid are studied. Prerequisite, Drawing 1, 2 or 4.

*Professor West*

9. LETTERING AND DESIGNING OF COMMERCIAL AND OTHER FORMS. Freehand sketching and lettering, making of geographical charts and plotting of data. Designing accounting organizations and statistical forms. Three hours in drawing for one credit. Student may elect one or more credits. Any quarter.

*Professor Powell and Mr. \_\_\_\_\_*

Note: Credit will be allowed in Mechanical Drawing in proportion to the amount of work completed.

## WOODWORK AND HOUSEBUILDING

ASSOCIATE PROFESSOR HANSEN.

MR. SWENSON.

MR. HUGHES.

The shops are open daily, except Saturday, from 8:00 to 12:00 and from 2:00 to 5:00 and Saturday from 8:00 to 12:00. The courses scheduled may be taken at any time when the shops are open.

(Lectures are included in the laboratory periods.)

## VOCATIONAL COURSES.

a. FUNDAMENTALS. Scarfing, mortising, dovetailing and jointing. Proper handling of tools is emphasized.

b. PANELS, sashes, doors and rafter cutting; also thorough practice in tool sharpening.

c. FEEDHOPPERS, trestles, gates, grindstone frames, beehives, etc., or simple furniture.

Vocational Courses five days a week, three hours daily.. Five credits. From one to five credits given according to the amount of work done. *Associate Professor Hansen*

### JUNIOR COLLEGE COURSES.

1, 2, 3. MACHINE WORK. The use of wood-working machinery, building a modern work bench and tool chest; also elementary and advanced wood turning. Prerequisite, Carpentry c.. Three hours daily any five days a week. Fall, Winter and Spring quarters. Five credits each quarter. *Mr. Swenson*

4, 5, 6. CABINET MAKING AND HOUSEBUILDING. Furniture in fir and oak, staining, fuming and finishing; framing, roofing,, door and window frames. Prerequisite, Carpentry 3. Three hours any five days a week. Fall, Winter and Spring quarters.. Five credits each quarter. *Mr. Swenson*

### SENIOR COLLEGE COURSES.

7, 8, 9. FANCY FURNITURE. Mahogany and other expensive woods are used; veneering, inlaying and hand polishing. Prerequisite Carpentry 6. Three hours daily, any five days a week.. Fall, Winter and Spring quarters. Five credits each quarter. *Mr. Swenson*

10. WOOD CARVING. Simple articles in straight and curved lines, simple conventional ornaments and natural foliage. Time and credits to be arranged with the instructor. *Mr. Hughes*

11. PATTERN MAKING. Time and credits to be arranged with the instructor. *Mr. Swenson*

12. ADVANCED SHORT COURSE. For students who have had some work and want to continue without taking the regular courses. Time and credit to be arranged with the instructor. *Mr. Swenson*

13. **PICTURE FRAMING.** Making of simple mouldings and frames, finishings, mat cutting, mounting and fitting. May be had in connection with the advanced courses in woodwork. Time and credit to be arranged with the instructor.

*Mr. Swenson*

14. **WOOD FINISHING.** Paints, pigments, oils and their manufacture. Water, oil and spirit stains; wash finish. Varnishes—kinds and their preparation; rubbing and hand polish. May be taken any quarter if four or more students apply. Three lectures a week, one quarter. Three credits.

Time to be arranged with the instructor.

*Associate Professor Hansen*

### **HARNESS REPAIRING**

MR. SWENSON.

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### **VOCATIONAL COURSE**

a. **HARNESS REPAIRING.** Designed to fit the student to do ordinary repairing of harnesses, saddles, etc. on the farm. Splicing, riveting, sewing, cleaning, oiling and the general upkeep of harness and leather goods. One three hour laboratory period each week throughout Fall, Winter and Spring quarters. One credit.

*Mr. Swenson*

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### **METHODS IN EXPERIMENTATION**

This course will be given by members of the Experiment Station Staff, Hours and credits are to be arranged.

#### **METHODS IN EXPERIMENTATION.**

a. Methods and principles of research as applied to agriculture. Winter term.

b. Experimental work in home problems in bacteriology, infant feeding, household chemistry or working out of home equipments, or in any problems brought in from the field.

Care will be taken not to duplicate other courses and an effort will be made to utilize in actual practice material obtained in class-room and laboratories.

## MILITARY SCIENCE AND TACTICS

PROFESSOR RUSSEL P. HARTLE, Major, Infantry, U. S. A.

ASSISTANT PROFESSOR ALEXANDER C. SULLIVAN, Major, Coast Artillery Corps, U. S. A.

ASSISTANT PROFESSOR CHARLES CHALLICE, JR., Captain, Quartermaster Corps, U. S. A.

ASSISTANT JAMES MCGRATH, Post-Comm. Sergeant, (Retired), U. S. A.

ASSISTANT HARRY SHUTTS, Sergeant, Quartermaster Corps, U.S.A.

ASSISTANT EUGENE J. CALLAHAN, Sergeant, Coast Artillery Corps, U. S. A.

ASSISTANT FRANK H. HEMMER, Sergeant, Infantry, U. S. A.

ASSISTANT FLOYD TODD, Sergeant, Infantry, U. S. A.

The Agricultural College of Utah is a land grant institution under the provisions of an Act of Congress of July 2nd, 1862, donating land for the establishment of colleges where the leading object shall be practical instruction in Agriculture and the Mechanic Arts, including Military Tactics.

A two years course of military training is required at this Institution of all physically fit made students as a prerequisite for graduation.

This training is an excellent course in the science of handling men, a knowledge of which is necessary in all walks of life after graduation.

The War Department has agreed to permit the course of military training at this Institution to be devoted to training the students to be Reserve Officers of the United States Army. Three branches of the Service or Reserve Officers' Training Corps. Units have been established here: Infantry, Coast Artillery and Motor Transport. The entire organization is designated officially as "The Reserve Officers' Training Corps."

Upon entering the institution, each student is permitted to select the R. O. T. C. Unit which he wishes to follow.

Each R. O. T. C. Unit has two courses—the Basic Course and the Advanced Course. In the first year of military training, the Basic Course is identical for all three units. It consists of a drill period of three hours duration from 10:00 A. M. to



1:00 P. M. each Thursday. During the Spring Quarter, this period is devoted to rifle and pistol practice.

During the second year the students in the Basic Course drill for two hours each Thursday from 10:00 A. M. until noon. The last hour is devoted to a course of lectures and practical demonstrations covering the following subjects:

Military Courtesy and Discipline	Guard Duty
Care and Handling of Arms and Equipment	Minor Tactics
Personal Hygiene, First Aid and Sanitation	Liaison
	Topography and Map Reading
	Signalling

In addition to the above, the Sophomore students in each Unit receive special instruction in the material pertaining to the particular branch of the Service selected. For the Infantry students, instruction in field engineering and military orders and messages is given in addition to the above. For the Motor Transport students, theoretical and practical instruction is given in automotive and gas engines in general, in the assembling of automobile and truck bodies, in automotive repair work and in the handling of truck convoys on the road.

The one hour weekly special instruction for Sophomores in the Basic Coast Artillery Course comprise practical work with an 8 inch Howitzer and a 155 mm. G. P. F. gun. Both of these guns represent types of guns that were handled by the Coast Artillery Troops in action in France. In addition, instruction is given in the types of powders, explosives, projectiles, primers and fuses used; instruments used for determining ranges to targets; artillery telephones and the different types of devices used for correcting ranges to enemy targets. In this connection, for the year 1921-1922, it is planned to set up a model plotting room for determining ranges similar to the plotting rooms actually existing in our coast defenses today.

Students in the Basic Course who so elect may take the six weeks course of instruction at a Basic Camp during the summer following the first or second year of the Basic Course. Transportation to and from the camp, rations, clothing, medical and dental treatment will be furnished by the Government.

After completing the two years Basic Course of instruction, students who have successfully qualified are eligible to continue their education in the Advanced Course of the unit which they selected in the Freshman year. To be thus eligible, students must be considered qualified by the President of the Agricultural College of Utah and by the Professor of Military Science and Tactics.

Students who elect the Advanced Course agree in writing to pursue the course until graduation and to attend the six weeks course of practical instruction known as the Advanced Summer Camp which starts about the middle of June between the Junior and Senior years. The student pursuing the Advanced Course receives commutation of rations, about 53 cents a day, until graduation. Travel to and from the camp and living expenses at the camp, including medical attention, are provided for by the United States Government. In addition, the advanced student receives \$1.00 a day while at camp.

During the summer of 1920, the Infantry Camp was held at Camp Lewis, Washington, and the Coast Artillery and Motor Transport Camps at the Presidio of San Francisco, California.

During the Junior and Senior years, the Advanced Course for all three units includes the following subjects:

Camp Sanitation—Care of Troops in the field.	Field Engineering.
Minor Tactics.	Common Law.
Topography and Map Reading.	Military Law
	Administration.

In addition to the above, the instruction in the Junior and Senior years of the different units comprises the following subjects:

INFANTRY:	Tactical Problems.
Drills, Marches and Ceremonies.	Handling of Men.
Care and Handling of Arms and Equipment	COAST ARTILLERY:
Rifle and Pistol Practice.	Gunnery
Personal Hygiene, First Aid and Sanitation.	Orientation and Surveying
Interior Guard Duty.	Coast Artillery Drill Regulations.
Military Courtesy and Discipline.	Exterior Ballistics.
Military History.	Ordnance.
Military Policies.	Organization of the Artillery.
	Tactical Artillery Problems.

Note: A knowledge of mathematics up to and including plane trigonometry is essential before enrollment in the Advanced Coast Artillery Course.

**MOTOR TRANSPORT.**

Advanced Motor Vehicle Engineering.	Administration and Maintenance.
Motor Vehicle Construction and Design	Organization Operation.
Convoy Problems.	Economics of Motor Transportation.
Transportation Surveys.	

Upon the satisfactory completion of the Advanced Course, the student, if he so desires and is so recommended by the President of the Agricultural College of Utah and the Professor of Military Science and Tactics, will be given a commission as Second Lieutenant in the Officers' Reserve Corps in the branch in which he qualified.

The student who has accepted a commission in the Reserve Corps of the United States Army will be obliged to attend a two weeks camp each summer unless he is excused for urgent reasons. His transportation to and from the camp will be paid by the Government and while at the camp he will receive the full pay of his rank in the Army. Reserve Officers are assigned by the Corps Area Commander to a company near their place of residence which will be immediately mobilized upon proclamation of the President of the United States that a state of war exists and that the Organized Reserve Forces of the Army of the United States are to be mobilized.

The Junior and Senior Advanced students receive three credits each quarter or nine credits each year.

Basic Course.

Thursday 10:00 a. m. to 1:00 p. m. *The Military Department.*

Advanced Course.

Junior: Th. 10:00 12:00

M. W. F. 10:00 to 11:00

Senior: Th. 10:00 to 12:00

M. W. F. 11:00 12:00

*The Military Department*

Note: Courses are numbered as follows: Infantry, 1; Coast Artillery, 2; Motor Transport, 3. The sub-headings will be as follows: Freshman, a; Sophomore, b; Junior, c, and Senior, d.

Examples of above: A Freshman registering in Infantry would register in Military Science 1a.

A Junior registering in Coast Artillery would register in Military Science 2c.

A Senior registering in the Senior year of the Motor Transport Unit would register in Military Science 3d.

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## MODERN LANGUAGES AND LATIN

PROFESSOR ARNOLD.

### JUNIOR COLLEGE COURSES.

#### FRENCH.

1. FIRST YEAR FRENCH. Walther and Ballard's Beginner's French for grammar and conversation. About 400 pages of easy prose are read. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 8:00.

*Professor Arnold*

1a. FIRST YEAR FRENCH. Will also start in Winter quarter and run five hours each week with five credits and continue through the Spring quarter three hours each week with three credits.

Winter quarter daily except Thursday 11:00.

Spring quarter M. W. F. 8:00. *Professor Arnold*

2. SECOND YEAR FRENCH. French Composition for grammatical review and writing in French; Lavissee's Histoire de France for conversation; translating works of nineteenth century authors. Prerequisite, French 1 or two years high school French. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 10:00.

*Professor Arnold*

### GERMAN.

1. FIRST YEAR GERMAN. Grammar, reading and conversation. Fall, Winter and Spring quarters. Three credits each quarter.

T. Th. S. 8:00.

*Professor Arnold*

### SENIOR COLLEGE COURSES.

#### FRENCH.

3. Reading course in Moliere's plays. Prerequisite, two years of college French or three of high school. Fall, Winter and Spring quarters. One credit each quarter.

T. 12:00.

*Professor Arnold*

4. FRENCH CONVERSATION. Games, dictation, learning of a one act play and writing business letters. Fall, Winter and Spring quarters. Prerequisite, two years of college French or three years of high school. One credit each quarter.

Th. 12:00.

*Professor Arnold*

5. Research work in French periodicals and books on any one of the following subjects:

- a. Landscape gardening.
- b. Percheron horses.
- c. French finance.
- d. French scientific reports.
- e. Home economics.

The work will consist of outside readings and weekly reports to the instructor. Prerequisite, two years of college French or three years of high school. One credit each quarter.

Hours to be arranged with instructor.

*Professor Arnold*

#### GERMAN.

3. SCIENTIFIC GERMAN. Rapid reading of scientific texts in different subjects according to the course of each student. Specially recommended for students who have had two years' work in German in high school or college and are planning to do advanced work in agronomy, botany or other sciences. Fall, Winter and Spring quarters. One credit each quarter.

Hours to be arranged with instructor.

*Professor Arnold*

#### LATIN.

1. Grammar and reading and study of English vocabulary. Fall, Winter and Spring quarters. Two credits each quarter.

T. S. 10:00.

*Professor Arnold*

#### SPANISH.

1. Grammar, conversation and reading. Fall and Winter quarters. Three credits each quarter.

T. Th. S. 9:00.

*Professor Arnold*

1a. Same course repeated, Spring quarter. Three credits.

M. W. F. 11:00.

*Professor Arnold*

**SPANISH.** Business correspondence, reading and conversation. Spring quarter. Three credits.

T. Th. S. 9:00.

*Professor Arnold*

**JOURNALISM.** (English 25) News collecting, study of country and city papers, preparation of agricultural feature stories for magazines and newspapers. Students of ability taking this course may sell much of their class work to the college publicity department thus getting much training in publicity work and agricultural editorship. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 1:00.

*Professor Arnold*

## MUSIC

PROFESSOR THATCHER.

ASSOCIATE PROFESSOR JOHNSON.

Students may enter the College orchestra or band without taking any other music course. One credit each quarter.

1. **ELEMENTARY THEORY.** Reviews the ground work necessary for students desiring a thorough knowledge of music. Keys, scales, intervals, melody writing, sight singing. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 9:00

*Professor Thatcher.*

2a. **APPRECIATION AND HISTORY OF MUSIC.** From text. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 11:00.

*Professor Thatcher.*

2b. **ANALYSIS AND CRITICISM.** Arranged to supplement private music study. Fall quarter. Two credits.

T. Th. 10:00.

*Professor Thatcher.*

2c. **AMERICAN MUSIC.** Winter quarter. Two credits.

T. Th. 10:00.

*Professor Thatcher.*



3. ELEMENTARY HARMONY. Text used. Home study, 6 hours as a minimum. Applied music, individual and ensemble. Prerequisite, 2 years' study, piano or equivalent. Fall, Winter and Spring quarters. Five credits each quarter.

M. W. F. 10:00.

*Professor Thatcher.*

4. ADVANCED HARMONY AND ANALYSIS. Applied music, individual and ensemble. Prerequisite, Music 3. Home study increased for this course. Five hours, Fall, Winter and Spring quarters. Five credits each quarter.

Hours to be arranged.

*Professor Thatcher.*

5. COUNTERPOINT AND SMALL FORMS. Applied music, individual and ensemble. Prerequisite, Music 4. Fall, Winter and Spring quarters. Five credits each quarter.

Hours to be arranged.

*Professor Thatcher.*

6. ORCHESTRA CLASS. Provides study of standard orchestra works. 2 hours a week. One credit each quarter.

Hours to be arranged.

*Professor Thatcher.*

7. CHOIR. To furnish music for chapel exercises and special occasions. Three hours per week. Fall, Winter and Spring quarters. One credit each quarter.

M. W. F. 12:00.

*Associate Professor Johnson.*

8a GLEE CLUB. An organization of men. Membership is limited in number and decided by competition. Three hours a week. Days and hours of practice to be arranged. Fall, Winter and Spring quarters.

*Associate Professor Johnson.*

8b. LADIES' CHORUS. Membership is limited and decided by competition. Three hours a week. The Glee Club and Ladies' Chorus join in giving the college opera. Fall, Winter and Spring quarters.

*Associate Professor Johnson.*

9. PUBLIC SCHOOL MUSIC. Ability to play and sing required. Applied music in choir or glee club. Deals with theory and methods of teaching, music supervision, programs. Three hours per week. Any quarter. Two credits.

Hours to be arranged. *Associate Professor Johnson.*

10. BAND. To provide for study and practice of band instruments and to furnish music for athletic meets and outdoor gatherings. Fall, Winter and Spring quarters. One credit each quarter.

Private Instruction may be had (the pupil paying the teacher's fee) in the following: Voice, Piano, Violin, Orchestral and Band Instruments. One credit a quarter in each course will be allowed if pupil is enrolled in Applied Music only.

Recitals by advanced students are given once a month.

## PHYSICAL EDUCATION

PROFESSOR PRESTON, M. D.

Medical Supervisor of Students.

ASSISTANT PROFESSOR JENSEN.

ASSISTANT PROFESSOR ROMNEY.

MISS CARLSON.

Physical education is arranged to give each student sufficient exercise to maintain physical health and a high degree of mental efficiency.

After careful physical examination work is prescribed to meet the need of each individual. Physical training is required of all students.

Adequate opportunity is afforded students to take part in class games and contests. Inter class sports are open to students who have never won a letter or who are not trying for the teams.

Athletic competition with colleges and universities in the State and Rocky Mountain Conference forms an interesting part of the work. The promotion of honor and college spirit through athletic games and meets constitutes an important feature of the department.

### PHYSICAL EDUCATION FOR MEN

1. GYMNASIUM WORK. Required of all students. Swedish gymnastics, callisthenic drills and gymnasium games. Students taking the course must learn to swim before receiving credit. Fall, Winter, and Spring quarters.

Sec. 1, M. W. F. 9:00.

Sec. 5, M. W. F. 11:00.

Sec. 2, T. Th. S. 9:00.

Sec. 6, M. W. F. 12:00.

Sec. 3, M. W. F. 10:00.

Sec. 7, M. W. F. 2:00.

Sec. 4, T. Th. S. 10:00.

Sec. 8, M. W. F. 3:00.

*Assistant Professor Jensen.*

2. CORRECTIVE GYMNASTICS. Designed especially for Federal men or others who are unfit physically to do the regular gymnasium or athletic work. The work will be individual.

Hours to be arranged.

*Professor Preston.*

3. FOOTBALL. Practice in football technic, equipment; theory of defensive and offensive play; study of rules, duties of officials, schedule making and general preparation for coaching. Fall quarter.

Daily, 5:00.

*Assistant Professor Romney.*

4. TRACK AND FIELD ATHLETICS. Instruction and practice; how to choose men for different events; track rules and duties of officials; theory of training for endurance, speed, skill, strength; problems of temperament, climate, traveling and professionalism. Spring quarter.

Daily, 5:00.

*Assistant Professor Romney.*

5. BASKETBALL. Instruction and practice; history, principles and technic of the game; methods of training and coaching; study of rules and duties of officials. Winter quarter.

Daily, 5:00.

*Assistant Professor Romney.*

6. BASEBALL. Instruction and practice. Spring quarter.

Daily, 5:00.

*Assistant Professor Romney.*

### PHYSICAL EDUCATION FOR WOMEN

MISS CARLSON.

The chief purpose of the department is for the physical betterment of the women of the Institution. It strives to develop such physical habits as make for vigor and efficiency and counteract the sedentary life of the student.

10. ELEMENTARY GYMNASTICS. A course in elementary gymnastics planned to meet the needs of those who have had no physical education. For all girls registered as vocational students. Fall, Winter and Spring quarters. One credit each quarter.

T. Th. 10:00.

*Miss Carlson.*

11. PRACTICAL GYMNASTICS. Designed to furnish activity of such a kind and in such a manner as will secure erect carriage and good motor control. The course consists of lectures in hygiene, general gymnastics, folk dancing, plays and games. Required for graduation. Fall, Winter and Spring quarters. One credit each quarter.

Sec. 1, T. Th. S. 11:00; Sec. 2, M. W. F. 10:00.

*Miss Carlson.*

12. ADVANCED PRACTICAL GYMNASTICS. A continuation of Physical Education 11. Required for graduation. Prerequisite, Physical Education 11. Fall, Winter and Spring quarters. One credit each quarter.

Sec. 1, T. Th. S. 10:00; Sec. 2, M. W. F. 11:00.

*Miss Carlson.*

13. AESTHETIC DANCING. A course in dancing technic, fundamentals of interpretive work and descriptive dances. Prerequisite, Physical Education 11. Fall, Winter and Spring quarters. One credit each quarter.

M. W. F. 2:00.

*Miss Carlson.*

14. PLAYS AND GAMES. A practical course designed to make students more proficient in playing the more common competitive games as baseball, volley ball, hockey, tennis and hand ball. Prerequisites, Physical Education 11 and 12. Fall, Winter and Spring quarters. One credit each quarter.

T. Th. 2:00.

*Miss Carlson.*

15. SOCIAL DANCING. Instruction in standardized modern dances for men and women. Winter quarter.

W. 5:00.

*Miss Carlson.*

16. INTERPRETIVE DANCING. A course in advanced technic, descriptive dramatic dancing and dance composition. Prerequisite, Physical Education 13. Fall, Winter and Spring quarters. One credit each quarter.

M. W. F. 3:00.

*Miss Carlson.*

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## PHYSICS

PROFESSOR FRANK L. WEST.

ASSOCIATE PROFESSOR GARDNER.

MR. EDLEFSEN.

### JUNIOR COLLEGE COURSES.

1a, 1b, 1c. GENERAL PHYSICS. The elements of physics, including mechanics, heat, electricity and magnetism, sound and light. Physics 1b (Electricity and Magnetism) is open to Winter course students. Fall, Winter and Spring quarters. Three credits each quarter.



Lec. Th. S. 9:00; lab. M. T. W. or Th. 2:00 to 5:00.

Fall and Winter quarters.

*Mr. Edlefsen*

Spring quarter.

*Professor West*

2a. APPLIED MECHANICS AND ENGINES. Prerequisite, high school physics. Fall quarter. Five credits.

Lec. T. Th. S. 8:00; lab. M. W. or T. Th. 2:00 to 5:00

*Professor West and Mr. Edlefsen.*

2b. APPLIED ELECTRICITY. Prerequisite, high school physics. Winter quarter. Five credits.

Lec. T. Th. S. 8:00; lab. M. W. or T. Th. 2:00 to 5:00.

*Professor West and Mr. Edlefsen*

2c. HEAT, LIGHT AND SOUND. Prerequisite, high school physics. Spring quarter. Five credits.

Lec. T. Th. S. 8:00; lab. M. W. or T. Th. 2:00 to 5:00.

*Professor West and Mr. Edlefsen.*

3. HOUSEHOLD PHYSICS. Four credits. Fall quarter.

M. T. W. F. 9:00.

*Professor West.*

4. APPLIED ELECTRICITY. Prerequisite, elementary Physics. Fall quarter. Three credits.

M. W. F. 10:00.

*Mr. Edlefsen.*

6. METEOROLOGY OR THE PHYSICS OF THE ATMOSPHERE. The methods of weather observations, predictions, frost warnings and the relation of climate to agriculture. Prerequisite, elementary Physics. Spring quarter. Three credits.

M. W. F. 8:00.

*Professor West.*

11. TELEGRAPHY. Morse or International code. Any quarter. One credit a quarter.

Time to be arranged.

*Professor West.*

#### SENIOR COLLEGE COURSES.

5. CHEMICAL PHYSICS. (Chemistry 16.) Including the atomic theory, kinetic theory of gases; gaseous, liquid and solid

states; solutions; thermochemistry, electro chemistry and radioactivity with special emphasis on osmotic pressure and diffusion. Prerequisites, Elementary Physics and Chemistry. Fall and Winter quarters. Three credits each quarter.

M. W. F. 8:00.

*Mr. Edlefsen.*

7. ADVANCED LABORATORY WORK. One to five credits each quarter. Recommended to students taking Physics 4 and 5.

Daily, except Saturday, 2:00 to 5:00.

*Mr. Edlefsen.*

8. THERMODYNAMICS, AND PHYSICAL CHEMISTRY. Prerequisite or parallel, Calculus.

(Not given in 1921-22).

*Professor West.*

9. THEORETICAL MECHANICS. Prerequisite, Calculus. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 8:00.

*Professor Gardner.*

10. DIRECT AND ALTERNATING CURRENT ELECTRICITY AND ITS APPLICATION TO INDUSTRY. Winter and Spring quarters. Three credits each quarter.

M. W. F. 10:00.

*Mr. Edlefsen.*

12. HYDRODYNAMICS. Prerequisite, Calculus. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 8:00.

*Professor Gardner.*

13. SEMINAR. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 11:00.

*Professor West.*

## PHYSIOLOGY

PROFESSOR GREAVES.

ASSISTANT PROFESSOR CARTER.

### JUNIOR COLLEGE COURSE

1. PHYSIOLOGY. A discussion of movement, sensation, circulation, respiration, digestion, absorption, metabolism and excretion. Questions of hygiene are considered in detail.

Sec. 1. Fall and Winter quarters. Three credits each quarter.

T. Th. S. 9:00.

Sec. 2. Spring quarter. Five credits.

Daily except Thursday 10:00. *Assistant Professor Carter.*

### SENIOR COLLEGE COURSE.

2. PHYSIOLOGY. An advanced course in special phases of physiology. Special emphasis will be placed upon the structure and function of the nervous system. Spring quarter. Three credits.

Hours to be arranged.

*Professor Greaves.*

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## POLITICAL SCIENCE

PROFESSOR DAINES.

PROFESSOR ISRAELSEN.

JUDGE BULLEN.

### VOCATIONAL COURSES

a. BUSINESS LAW. The elementary principles of law relating to common business transactions, including contracts, sales, negotiable paper, agency, partnerships and corporations. Winter and Spring quarters. Three credits each quarter.

M. W. F. 8:00.

*Judge Bullen.*

b. CIVICS. Government of the United States. Winter quarter. Three credits.

T. Th. S. 8:00.

*Professor Daines.*

c. CIVICS. Government of Utah, state and local. Spring quarter. Three credits.

T. Th. S. 8:00.

*Professor Daines.*

### JUNIOR COLLEGE COURSES.

1a. GOVERNMENT OF THE UNITED STATES. In this course

the government of our country will be historically and critically studied. Special attention will be given to the origin and development of the Constitution. Fall quarter. Three credits.

M. W. F. 11:00.

*Professor Daines.*

1b. STATE GOVERNMENT. The chief purpose of this course will be to show the relationship of the states and the nation in our federal form of government. The government of Utah will be studied in detail. Winter quarter. Three credits.

M. W. F. 11:00.

*Professor Daines.*

1c. POLITICAL PARTIES. A study of the development, practices and importance of political parties. Special attention will be given to the various schemes for political reform. Spring quarter. Three credits.

M. W. F. 11:00.

*Professor Daines.*

2. MUNICIPAL GOVERNMENT. A thorough study of governmental practices and problems in our American cities. Alternates with Political Science 9. Spring quarter. Three credits.

M. W. F. 9:00.

*Professor Daines.*

#### SENIOR COLLEGE COURSES.

4. COMMERCIAL LAW. The law of contracts, agency and commercial paper. Fall and Winter quarters. Three credits each quarter.

(Not given in 1921-22).

*Judge Bullen.*

5. COMMERCIAL LAW. The law of debtor and creditor, sales, partnerships and corporations. Fall and Winter quarters. Three credits each quarter.

T. Th. S. 8:00.

*Judge Bullen.*

6. IRRIGATION LAW OR THE LAW OF WATERS. (Given by the Departments of Political Science and Irrigation and Drainage conjointly.) The right of appropriation, natural and arti-

ficial water courses, limitation of use, protection of rights, disposal of rights, percolating water, distribution of water, etc. Winter and Spring quarters. Three credits each quarter.

T. Th. S. 8:00.

*Winter quarter, Professor Israelsen.*

*Spring quarter, Judge Bullen.*

7. AMERICAN CONSULAR AND DIPLOMATIC SERVICES. Critical analysis of our consular service and the principles and practices of American diplomacy. Three credits.

(Not given in 1921-22).

8. COMPARATIVE GOVERNMENT. A comparative study of the important present day governments of the world. Alternates with Political Science 10.

(Not given in 1921-22).

9. THEORY OF GOVERNMENT. The principles and structures of politically organized society. Alternates with Political Science 2.

(Not given in 1921-22).

10. WORLD POLITICS. (History 15). A study of the methods and practices governing international relations. Alternates with Political Science 8. Fall and Winter quarters. Three credits each quarter.

M. W. F. 9:00.

*Professor Daines.*

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## PUBLIC SPEAKING

ASSISTANT PROFESSOR DUNN.

### JUNIOR COLLEGE COURSES.

2. VOCAL INTERPRETATION. A course in the vocal interpretation of literature. The aim of the course will be to develop the ability to interpret the printed page with adequate vocal and



emotional response. Ballads, lyrics, short stories and scenes from Shakespeare's plays and from modern plays of literary merit will be assigned for study. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 11:00.

3. EXTEMPORANEOUS SPEAKING. Practice in extemporaneous speaking on subjects of current interest with some attention to the preparation of speech outlines. Supplementary work in voice development and the correction of defects in speech. Occasional practice assignments in reading. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 9:00.

#### SENIOR COLLEGE COURSES.

5. PUBLIC SPEAKING. A study of the principles of effective public speaking with practice in the preparation and delivery of speeches adapted to various audiences. Occasional practice assignments from the masterpieces of oratory. Prerequisite, Public Speaking 3. Fall, Winter and Spring quarters. Two credits each quarter.

T. S. 10:00.

9. DRAMATIC INTERPRETATION. A laboratory course in the Modern Drama. The plays of Ibsen, Hauptmann, Maeterlinck, Shaw, Galsworthy, Yeats, Synge and other contemporary dramatists will be studied from the interpretative side. Members of the class will vocally interpret characters and scenes assigned for individual study and several plays will be presented to the public as part of the class work. Prerequisite, Public Speaking 2. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 8:00.

## RANGE MANAGEMENT

ASSISTANT PROFESSOR BECRAFT.

### VOCATIONAL COURSES.

a. ELEMENTARY RANGE MANAGEMENT. Practical range problems including methods of handling live stock. Winter quarter. Three credits.

M. W. F. 8:00.

*Assistant Professor Becraft*

b. ELEMENTARY FORESTRY. Practical phases of timber production and forest management, mensuration and protection. Winter quarter. Three credits.

M. W. F. 11:00.

*Assistant Professor Becraft.*

### JUNIOR COLLEGE COURSES.

1. RANGE MANAGEMENT. A general course including history, forage, plants, poisonous plants, range improvement, reconnaissance, carrying capacity and methods of handling live-stock. Prerequisite, Botany 1 or 2. Winter quarter. Three credits.

M. W. F. 9:00.

*Assistant Professor Becraft.*

7. FORESTRY. A general introductory course including silviculture and forest management, mensuration, utilization, protection and economics. Prerequisite, Botany 1 or 2. Winter quarter. Three credits.

M. W. F. 10:00.

*Assistant Professor Becraft.*

### SENIOR COLLEGE COURSES.

8. RESEARCH. For students specializing in Range Management. Time and credit to be arranged with instructor.

*Assistant Professor Becraft*

**RURAL PUBLIC HEALTH**

PROFESSOR GREAVES.

PROFESSOR PRESTON, M. D.

PROFESSOR RAY B. WEST.

PROFESSOR FREDERICK.

PROFESSOR WHITACRE.

ASSISTANT PROFESSOR CARTER.

ASSISTANT PROFESSOR DANCEY.

Students who wish to specialize in Public Health work will be required to present for graduation 24 hours credit to be selected from this group of subjects. They must include Rural Public Health 18 (Public Health and Preventative Medicine) in addition to the fulfilling of all other requirements.

**JUNIOR COLLEGE COURSES.**

1. PATHOGENIC BACTERIOLOGY (Bacteriology 3). Fundamentals, morphopology, biology, function, etc. The pathogenic bacteria are considered in relation to specific diseases especially with regards the subject of immunity. Breakage deposit \$2.50. Prerequisite Bacteriology 1 or 2. Spring quarter. Five credits.

Lec. M. W. F. 11:00; lab. W. F. 2:00 to 5:00.

*Professor Greaves.*

2. PHYSIOLOGY (Physiology 1.). A discussion of movement, sensation, circulation, respiration, digestion, absorption, metabolism and excretion. Questions of hygiene are considered in detail.

Sec. 1 Fall and Winter quarters. Three credits each quarter.

T, Th. S. 9:00.

Sec. 2. Spring quarter. Five credits.

Daily except Thursday 10:00.

*Assistant Professor Carter.*

3. RURAL WATER SUPPLY AND WASTE DISPOSAL (Rural Sanitation 6.) Methods of (a) supplying farm and rural communities with sanitary water; (b) handling waste of the farm and small town. Spring quarter. Three credits.

T. Th. S. 8:00.

*Professor West.*

4. PARASITOLOGY (Zoology 5). The classification, structure, and life history of animal parasites; these include the pathogenic protozoans, flukes, tapeworms, roundworms, and arthropods that act as carriers of organisms injurious to man and the domestic animals. Fall quarter. Four credits.

Lec. T. Th. S. 9:00; lab. M. 2:00 to 5:00.

5. FIRST AID. Treatment of emergencies and accidents. Two sections. Winter quarter. Two credits.

Hours to be arranged

*Professor Preston*

6. HOME HEALTH AND NURSING. Special emphasis on the prevention of disease and on the building up of the highest degree of health as the principal function of the home nurse. The treatment of functional disturbances, injuries, wounds, etc. receive due attention. Lectures, discussions and laboratory demonstrations. The reading of reference works, and special reports are required. Winter and Spring quarters. Three credits each quarter.

Lec. T. Th. 9:00; lab. any afternoon 2:00 to 5:00.

*Assistant Professor Dancey.*

#### SENIOR COLLEGE COURSES.

7. SANITATION (Bacteriology 8). Principles of sanitation; nature of disease, its spread and means of prevention and disinfection; sanitary arrangement and construction of farm buildings. Prerequisite, Bacteriology 1 or 2. Winter and Spring quarters. Three credits each quarter.

T. Th. S. 11:00.

*Professor Greaves.*

8. ADVANCED PHYSIOLOGY. (Physiology 2) An advanced course in special phases of physiology. Special emphasis will be placed upon the structure and function of the nervous system. Spring quarter. Three credits.

Hours to be arranged.

*Professor Greaves.*

9. EUGENICS (Zoology 8). The principles of genetics as applied to the human race. Attention is given to the historical development and needs for eugenics, the inheritance of physical, mental, and moral traits; human crosses, consanguineous marriages, eugenic procedure, and other principles which influence the innate qualities of human beings. Prerequisite, Zoology 7. Spring quarter. Four credits.

W. Th. F. S. 11:00.

10. DAIRY BACTERIOLOGY (lecture). (Bacteriology 5a). The bacteria of milk, butter and cheese; communicable diseases in their relation to the dairy; contamination by air, water, utensils; desirable and undesirable fermentation. Winter quarter. Two credits.

T. Th. 8:00.

*Assistant Professor Carter.*

11. DAIRY BACTERIOLOGY. (Laboratory), (Bacteriology 5b). Methods used in the bacteriological examination of milk and dairy products. May accompany Bacteriology 5a. Breakage deposit, \$2.50. Prerequisite, Bacteriology 1 or 2. Winter quarter. Three credits.

Lab. M. W. F. 2:00 to 5:00.

*Assistant Professor Carter.*

13. SPECIAL DIETS (Foods 6). Choice and preparation of food under conditions that present definite problems; as for infants and children, school lunches, and the sick. Laboratory practice in preparation of foods suitable to demands in given instances. Collateral reading. Prerequisite, Foods 4. Fall quarter. Three credits.

Lec. M. W. 11:00; lab. F. 2:00 to 5:00.

*Professor Whitacre*



14. **SANITARY STATISTICS** (Bacteriology 6). Vital statistics showing the effect of sanitary precautions upon health in cities and rural communities. Fall quarter. Two credits.

T. Th. 8:00.

*Assistant Professor Carter.*

15. **SCHOOL SANITATION** (Bacteriology 14). Sanitary problems confronting the teacher in the rural and urban districts. Fall quarter. Three credits.

T. Th. S. 11:00.

*Professor Greaves.*

16. **SANITARY ANALYSIS** (Bacteriology 6). Methods used by the sanitary inspector in examining water, milk and other foods. Breakage deposit \$2.50. Prerequisites, Chemistry 6 and Bacteriology 1 or 2. Time and credit to be arranged.

*Professor Greaves.*

18. **PUBLIC HEALTH AND PREVENTATIVE MEDICINE**. Lecture, demonstration and clinic course. Cases will be shown of the various communicable and preventable diseases. Emphasis will be placed upon their detection and diagnosis and methods of prevention and eradication. Actual practice under direction of a physician in inspection and health supervision of schools will form a part of this course. Prerequisites, Physiology 2 and Bacteriology 8. One lecture and three hours clinic each week. Fall, Winter and Spring quarters. Hours to be arranged with instructor.

*Professor Preston.*

19. **ADVANCED BIO-CHEMISTRY** (Bacteriology 15). Bacteriological and chemical methods used in diagnosing of diseases. Winter quarter. Five credits.

*Professor Greaves.*

20. **SANITARY INSPECTION**. (Veterinary Science 20). Inspection of slaughter houses, packing houses, butcher shops, etc., and means of detection of communicable diseases and spoilage in meat products. Prerequisite, Bact. 2. One quarter. Three credits.

Hours to be arranged.

*Professor Frederick.*

## SOCIOLOGY

PROFESSOR M. H. HARRIS.

### SENIOR COLLEGE COURSES

1. RURAL SOCIOLOGY. (Agricultural Economics 6). The principles of sociological science applied to the problems of modern agricultural and rural communities. Fall quarter. Three credits.

T. Th. S. 9:00.

*Professor Harris.*

2. PRINCIPLES OF SOCIOLOGY. The foundation of sociology; social organs, social structure and social activities. Winter quarter. Three credits.

T. Th. S. 9:00.

*Professor Harris.*

3. APPLIED SOCIOLOGY. Social problems and social policy. An analysis of the causes, extent, treatment and prevention of poverty, defectiveness, vice and crime will be made. In connection with this course it is planned to visit the state industrial school, penitentiary, insane asylum, etc. Prerequisite, Sociology 2. Spring quarter. Three credits.

T. Th. S. 9:00.

*Professor Harris.*

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## STENOGRAPHY AND TYPEWRITING

PROFESSOR P. E. PETERSON

MR. HOWELL

MISS FOGLEBERG.

### STENOGRAPHY

#### VOCATIONAL COURSES.

a. ELEMENTARY SHORTHAND. Thorough drill in the fundamental rules of the Isaac Pitman or Gregg system of short-

hand. Fall, Winter and Spring quarters. Four credits each quarter.

Sec. 1. Pitman Shorthand, daily except Saturday 3:00.

*Mr. Howell*

Sec. 2. Gregg Shortland, daily except Thursday 11:00.

*Miss Fogleberg*

b. **ADVANCED SHORTHAND.** Advanced work in shorthand. Drill in the attainment of speed. Open to both Gregg and Pitman students. Fall, Winter and Spring quarters. Four credits each quarter.

Daily except Thursday 10:00.

*Mr. Howell*

**SPECIAL.** A special class will be held for such students as desire to take stenography during the Winter quarter, the work given being the same as Stenography a. Winter quarter. Four credits.

Daily except Saturday 2:00.

*Mr. Howell*

#### JUNIOR COLLEGE COURSES

1. College course in stenography. Fall, Winter and Spring quarters. Four credits each quarter.

Sec. 1. Pittman shorthand, daily except Saturday 3:00.

*Mr. Howell*

Sec. 2. Gregg shorthand, daily except Thursday 11:00.

*Miss Fogleberg*

2. Advanced college course in stenography. Fall, Winter and Spring quarters. Open to Gregg and Pitman students. Four credits each quarter.

Daily except Thursday 10:00.

*Mr. Howell*

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#### PENMANSHIP

**PENMANSHIP.** The aim in this class will be to develop a free legible business handwriting. Fall, Winter and Spring quarters. One credit each quarter.

M. W. F. 11:00.

*Mr. Howell*

## TYPEWRITING

### VOCATIONAL COURSES

Students must consult the instructor in order to arrange for sections.

a. BEGINNING COURSE. Correct fingering and proper manipulation of the machine. Fall, Winter and Spring quarters. One credit each quarter.

- Sec. 1. 8:00 daily except Saturday.
- Sec. 2. 9:00 daily except Saturday.
- Sec. 3. 10:00 daily except Saturday.
- Sec. 4. 11:00 daily except Saturday.
- Sec. 5. 2:00 daily except Saturday.
- Sec. 6. 3:00 daily except Saturday.

*Miss Fogelberg*

b. SECOND YEAR COURSE. Daily exercises in which accuracy and speed are attained. Fall, Winter and Spring quarters. One credit each quarter.

- Sec. 1. 8:00 daily except Saturday.
- Sec. 2. 9:00 daily except Saturday.
- Sec. 3. 10:00 daily except Saturday.
- Sec. 4. 11:00 daily except Saturday.
- Sec. 5. 2:00 daily except Saturday.
- Sec. 6. 3:00 daily except Saturday.

*Miss Fogleberg*

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## TEXTILES AND CLOTHING

PROFESSOR MOEN.  
MISS RICHARDSON.  
MRS. ORMSBY.

Students who elect Textiles and Clothing as their major

are required to complete the following courses: Textiles and Clothing 1, 2, 5 and 6.

### VOCATIONAL COURSE

a. **HAND SEWING AND GARMENT MAKING.** Planned for students who can spend only a short time at the College. Training in hand and machine sewing. Drafting and use of commercial patterns. Selection of suitable materials for underwear and dresses. Design and construction of simple garments. Fall quarter. Will be repeated in Winter and Spring quarters. Four credits.

Daily, except Saturday, 10:00 to 12:00.

*Mrs. Ormsby*

### JUNIOR COLLEGE COURSES

1. **REVIEW OF TECHNIC AND ELEMENTARY DRESSMAKING.** The application of hand and machine sewing to underwear, children's clothing and simple dresses. Drafting, designing, use of patterns and consideration of suitable materials. Prerequisites or parallel, Art 1, 2 and 21. Sections 1, 2 and 4, Fall, Winter and Spring quarters. Two credits each quarter. Section 3, Winter and Spring quarters. Three credits each quarter.

Sec. 1. M. W. 2:00 to 5:00.

*Mrs. Ormsby*

Sec. 2. T. Th. 2:00 to 5:00.

*Miss Richardson*

Sec. 3. M. W. F. 2:00 to 5:00.

*Professor Moen*

Sec. 4. T. Th. 2:00 to 5:00.

*Mrs. Ormsby*

2a. **TEXTILE FABRICS.** This course considers the primitive forms and present methods of carding, spinning, weaving and finishing of cotton, wool, silk, linen and other important fibres, and their properties and values in relation to manufacture and use. Fall quarter. Three credits.

M. W. F. 9:00.

*Professor Moen*

2b. **ECONOMICS OF TEXTILES.** Identification and grading of textile materials, their names, prices and widths. Qualitative



testing. Training in selection of ready-made clothing and household furnishings, clothing budgets, etc. Prerequisites, Clothing 1b, Textiles 2a and Economics 1. Winter quarter. Three credits.

M. W. F. 9:00.

*Professor Moen*

2c. CHEMISTRY OF TEXTILES. Chemical methods for the identification and estimation of the textile fibres, including complete quantitative determination of cotton, wool, silk and linen substances in fabrics. Chemistry of dyeing and bleaching. Prerequisites, Chemistry 3, Textiles and Clothing 2a and 2b. Spring quarter. Three credits.

Hours to be arranged.

*Assistant Professor Hirst*

3. MILLINERY. Designing and drafting patterns for hats; construction of frames from buckram, rice net and wire; various methods of covering foundations. Preparation of trimmings. Renovation of materials. Prerequisites or parallel, Art 1 and 21. Sections 1 and 2, two credits each quarter. Sections 3 and 4, three credits.

Sec. 1, Fall and Winter quarters, W. F. 10:00 to 12:00.

Sec. 2, Winter and Spring quarters. T. Th. 10:00 to 12:00.

Sec. 3, Fall quarter, M. W. F. 2:00 to 5:00.

Sec. 4, Winter quarter, M. W. F. 2:00 to 5:00.

*Miss Richardson*

4. HANDWORK AND WEAVING. Lectures and laboratory work including practical instruction in the fundamental stitches applicable to household furnishings and clothing. The selection, preparation, care and repair of bed linen, table linen, draperies, etc. Simple weaving, crocheting, knitting and tatting. Prerequisites, or parallel, Art 27k and Clothing 1. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 10:00 to 12:00.

*Professor Moen*

#### SENIOR COLLEGE COURSES.

5a. HISTORY OF COSTUME. A study of Egyptian, Grecian,

Roman, early and modern French costumes. Three lectures. Fall quarter. Three credits.

M. W. F. 10:00.

*Professor Fletcher*

5b. COSTUME DESIGN. Design in costume, rhythm of line, harmony of color. Sketching gowns and hats; study of styles suitable to various types. Winter quarter. Three credits.

M. W. F. 10:00 to 12:00.

*Professor Fletcher*

5c. APPLICATION OF COSTUME DESIGN. Practical training in the use and adaptation of different individuals and purposes, designs made in Textiles and Clothing 5b as well as designs taken from current fashion magazines. Modeling in paper and crinoline and making of one costume. Prerequisites, Textiles and Clothing 1 and 5a and 5b, or their equivalents. Spring quarter. Three credits.

M. W. F. 10:00 to 12:00.

*Professor Moen*

6. ADVANCED DRESSMAKING. The application to costume of line and color harmony. Pattern making and draping with materials. Construction of dresses in cotton, wool and silk materials, with special emphasis on the technic of dressmaking. Prerequisites, Clothing 1, 2, 5a, b, c. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 2:00 to 5:00.

*Professor Moen*

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## VETERINARY SCIENCE

PROFESSOR FREDERICK.

### VOCATIONAL COURSE

a. Elementary veterinary science for vocational students. Fall quarter. Repeated Winter quarter. Four credits.

Lec. T. Th. S. 8:00; clinic W. 2:00 to 5:00 Fall quarter.

Lec. M. W. F. 10:00; clinic Th. 2:00 to 5:00 Winter quarter.

*Professor Frederick*

## JUNIOR COLLEGE COURSES

1. VETERINARY ELEMENTS. Introduction to anatomy and physiology and the common ailments of domestic animals; the most prevalent diseases, their distribution, causes, symptoms, course, diagnosis and treatment; observation and practice in the free weekly clinics. Fall or Winter quarter. Four credits.

Lec. T. Th. S. 8:00; clinic W. 2:00 to 5:00 Fall quarter.

Lec. M. W. F. 10:00; clinic Th. 2:00 to 5:00 Winter quarter.

*Professor Frederick*

2. COMPARATIVE ANATOMY. Especially for students in agriculture and animal husbandry; also students wishing to follow veterinary science. This course is supplemented with practical work in dissection and illustrated by skeletons and models. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 11:00.

(Not given 1921-22.)

*Professor Frederick*

3. OBSTETRICS. Obstetrical anatomy, reproduction, hygiene of pregnant animals. Obstetric operations, accidents of parturition and diseases of the new-born. The college herd and the surrounding stock breeding community give ample opportunity for practical work. Winter and Spring quarters. Two credits each quarter.

T. S. 11:00.

*Professor Frederick*

4. PHYSIOLOGY. The vital functions of the different species of domestic animals and those of the human body are compared; the physical and chemical laws as related to physiology; the general properties of animal cells,—their origin, development and growth; special physiology of the various organs and tissues of the animal body. Given if 10 students register. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 9:00.

*Professor Frederick*

5. CLINICS. Free clinics at the hospital in which students

of veterinary science must assist. The numerous cases represent all diseases common to this locality and furnish the clinic with abundant material for observation and practice. Hours and credits to be arranged. Fall, Winter and Spring quarters.

Clinic W. Th. 2:00 to 5:00; Veterinary Hospital.

*Professor Frederick*

6. PRINCIPLES OF HORSE SHOEING. The anatomy and physiology of the horse's foot; the form of the foot and the direction of the limb; variations in the light of the foot, styles 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. Winter quarter; repeated Spring quarter. Three credits.

T. Th. S. 9:00.

*Professor Frederick*

#### SENIOR COLLEGE COURSES.

7. HYGIENE AND INFECTIOUS DISEASES. A continuation of Veterinary Science 1. A discussion of water and food supply, disinfection, care and management of animals and feeding of sick animals. The common infectious diseases prevalent here, methods which should be adopted in their control and eradication. Tests applied for diagnosis, vaccination and serum treatment of animals. Winter or Spring quarter. Four credits.

Clinics W. or Th. 2:00 to 5:00, Veterinary Hospital.

Sec. 1—T. Th. S. 8:00 Winter quarter.

Sec 2.—M. W. F. 10:00 Spring quarter.

*Professor Frederick*

8. ANATOMY AND PHYSIOLOGY. A study of the form, structure and functions of the animal body. Attention is given to all domestic animals and students are required to locate and point out the parts related to the form, movement and utility of the animal. Fall and Winter quarters. Three credits each quarter.

Lec. T. S. 10:00; clinic W. or Th. 2:00 to 5:00; Veterinary Hospital.

*Professor Frederick*

20. **SANITARY INSPECTION.** Inspection of slaughter houses, dairies, packing houses, butcher shops, etc., and means of detection of communicable diseases and spoilage in meat products. Prerequisite Bacteriology 2. One quarter. Three credits.

Hours to be arranged.

*Professor Frederick*

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## ZOOLOGY

PROFESSOR HAWLEY

ASSISTANT PROFESSOR PACK.

See Entomology for related work.

### JUNIOR COLLEGE COURSES.

1. **ELEMENTARY GENERAL ZOOLOGY.** A study of morphology, physiology, differentiation, adaptation and other zoological principles. A brief survey of the animal kingdom is undertaken so that the student will be able to identify the general groups. Intended for those who have not studied zoology before and who desire only a general view of the subject. Students in Home Economics, Mechanic Arts, Agricultural Engineering and Commerce may take the course, but those in General Science and Agriculture and all students desiring a more comprehensive study should take Zoology 3. Sec. 1, Fall and Winter quarters; sec. 2, Winter and Spring quarters. Three credits each quarter.

Sec. 1. Lec. T. Th. 8:00; lab. T. or F. 2:00 to 5:00.

Sec. 2. Lec. W. F. 10:00; lab. Th. or F. 2:00 to 5:00.

3. **GENERAL ZOOLOGY.** A systematic study of the animal kingdom, its general classification and the relation of the various groups of animals to each other. Emphasis is placed upon structural characteristics, development, function and relation of organs in the different groups. Winter and Spring quarters. Five credits each quarter.

Lec. T. Th. S. 9:00; lab. M. W. 2:00 to 5:00.



4. **ECONOMIC ZOOLOGY.** Study of the feeding and breeding habits of intermountain vertebrates; their economic relation to agricultural interests. Methods for the control of injurious vertebrates and for the encouragement of beneficial ones are considered. Spring quarter. Four credits.

Lec. M. W. F. 9:00; lab. T. 2:00 to 5:00.

5. **PARASITOLOGY.** (Rural Sanitation 2.) The classification, morphology and life history of animal parasites. The disease-producing protozoans, flukes, tapeworms and roundworms receive special study. Arthropods as external parasites and carriers of pathogenic organisms receive attention. Fall quarter. Four credits.

Lec. T. Th. S. 9:00; lab. M. 2:00 to 5:00.

#### SENIOR COLLEGE COURSES.

6. **ADVANCED ZOOLOGY.** The classification, morphology and comparative anatomy of the vertebrates. Prerequisite, Zoology 1 or 3. Fall and Winter quarters. Five credits each quarter. Hours to be arranged.

7. **GENETICS.** This course considers the biological principles of life and the inheritance of characters. A study of the germ cells with reference to heredity. The questions of variation, mutation, the inheritance of acquired characters, pure lines, Mendelism, sex determination and genetic principles generally are the main subjects of discussion. Prerequisite, Zoology 3 or equivalent. Winter quarter. Four credits.

M. W. F. S. 11:00.

8. **EUGENICS.** The principles of genetics as applied to the human race. Attention is given the historical development of and needs for eugenics, the inheritance of physical, mental and moral traits; human crosses, consanguineous marriages, eugenic pro-

cedure and other principles which influence the innate qualities of human beings. Prerequisite, Zoology 7. Spring quarter. Four credits.

M. W. F. S. 11:00.

9. HISTORY AND EMBRYOLOGY. A general course of histology and embryology with special reference to man. Fall quarter, lectures and laboratory work on the principles of technic and a study of epithelial tissue. Winter quarter completes work in histology and continues with a treatment of the germ cells, their maturation and fertilization. Spring quarter, comparative study of the embryological development of amphioxus, frog and man. Prerequisite, General Zoology. Fall, Winter and Spring quarters. Four credits each quarter.

Hours to be arranged.

10. RESEARCH. The student who wishes to engage in some line of original research and is qualified to do so may elect and study some topic from eugenics, ecology, morphology or other zoological subjects. Thesis. Time and credits to be arranged.

# Twenty-Seventh Annual Commencement

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## AGRICULTURE

### *Agronomy*

Avedian, Giragos  
Barney, Archie Fay  
Booth, John Albert  
Christiansen, El Ray La Var  
Croft, Alfred Russell  
Crookston, Larn Edgar  
Kearl, Chase  
Macbeth, Glenn Egerton  
Memmott, Cleon Lavar  
Morgan, Norman Frederick  
Reed, Joseph  
Tuttle, Ray L.

### *Animal Husbandry*

Barlow, Fielding Burton  
Bateman, James Robert  
Cannon, Douglas Quentin  
Morrell, Thomas Heber  
Poulter, William Irvin  
Price, Ardath Layne  
Robinson, Eugene William  
Tippetts, John Roy

### *Botany*

Hansen, Clarence James

## AGRICULTURAL ENGINEERING AND MECHANIC ARTS

Andrus, Lenard Milo  
Bowen, Leslie  
Christensen, Leon Peter  
Coffman, William Elmo

Wilson, Vanez Theurer

### *Mechanic Arts*

Russell, George Elmo

## COMMERCE AND BUSINESS ADMINISTRATION

Clark, Horald Gower  
Garrett, Leon Demoin  
Hendricks, John Allan  
Howell, Joseph Devonald

Jones, Hyrum Pidding  
Lindsay, William  
Parry, John Waldo  
Sauls, Keifer Branham

## GENERAL SCIENCE

Budge, Alfred Hodge  
Budge, Scott Merrill  
Ewing, Scott Preston  
Gubler, Helen Anna  
Merrill, Edna Ensign

Nebeker, Accl Hulme  
Nelson, Peter  
Olsen, Leander  
Peterson, Maurine Merredith  
Thomas, Kathryn

## HOME ECONOMICS

Barker, Lena  
Brossard, Laura Parkinson Cowley  
Eberle, Lillie Louise  
Foutz, Nadine  
Greaves, Ethelyn Oliver

Moen, Johanna  
Rich, Irene  
Stookey, Bernice Jemima  
Wells, Geneva

## Master of Science in Agriculture

Lund, Yeppa

### Doctor of Laws

Hines, Frank Thomas

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## Honors, 1920-21

Scholarship: The following students have been selected as deserving special distinction for high achievement in scholarship. They have accordingly, received either a "Scholarship 'A'" or "Honorable Mention:"

### *Scholarship "A"s*

Walter Edward Atwood  
Loila D. Merrill  
Jackson Price  
Emery Ranker

Miriam Jackson  
William H. Bell  
William H. Willeson

### *Honorable Mention*

Wesley B. Brummett  
Peter Rich Johnston  
Maurice B. Linford

Ezra C. Thompson  
Florence Walker  
Daniel H. Nelson

## Debating

### *Inter-Collegiate Debating:*

W. J. Merrill  
King Hendricks  
LeRoy Funk  
S. H. Judd

Carl Frischknecht  
Emery Ranker  
Sidney Cornwall  
Douglas Smith

### *Oratory:*

*The Hendricks Medal Won By:*  
King Hendricks.

*The Casto Medal Won By:*  
Victor Linblad

*The Sons of the American Revolution Medal Won By:*  
Morris Christensen

Scholarships: The following students were awarded the Johansen scholarships for 1920-1921:

Bramwell Peck  
Moroni Smith

Delmar Tingey

Student Body Officers:

Morris Christensen .....	President
Pearl Oberhansly .....	Vice-President
Blanche Mendenhall .....	Secretary

"Student Life" Staff:

Wilford D. Porter .....	Managing Editor
Ray L. Alston .....	Editor
King Hendricks .....	Editor
Francis Hayes .....	Business Manager
Homer Fornooff .....	Business Manager

"Buzzer" Staff:

Charles Hart .....	Editor
A. B. Smith .....	Business Manager

The Lois Hayball Medal, given for the best student in home economics, was won by Oreta Merrill.

The Men's Shop Medals, given to the best inter-class debaters, were won by Bramwell Peck and Lawrence Jones.

The William Peterson Medal, given to the author of the best paper on some selected scientific subject, was won by H. E. Flanders.

The Howell Medal, given to the best inter-collegiate debater, was won by Wilford J. Merrill.

The Vernon Medal, given to the writer of the best short story, was won by Mrs. Rose Thompson.



# List of Students 1920-1921

*In the following list "a" stands for agriculture; "aema" for agricultural engineering and mechanic arts; "ho" for home economics; "c" for commerce; "g" for general science; "ss" for summer school; "G" for Graduate; "S" for Senior; "J" for Junior; "So" for Sophomore; "F" for Freshman; "V" for Vocational; "Fed" for Federal; "sp" for Special.*

Abbott, Mrs. Clara	ho-Sp	St. George
Abbott, Israel	g-So-ss-Fed	St. George
Adams, Claude H.	c-So	Tremonton
Adams, Clay Q.	c-F	Layton
Adams, Geo. T.	c-F	Logan
Adams, Verena	ss	Logan
Adamson, David D.	a-V-Fed	Pleasant Grove
Aamson, Herbert G.	aema-F	Richmond
Affleck, Modena	ss	Logan
Aitken, Adren	g-S-Fed	Preston, Idaho
Aldous, Harold	a-V	Huntsville
Aldous, Horace	aema-V	Huntsville
Allen, Albert B.	a-S	Nephi
Allen, Chas. E.	a-V-Fed	Orderville
Allen, Hazel L.	ho-Sp	Raymond, Alta, Canada
Allen, Lucile B.	ho-So	Raymond, Alta, Canada
Alliston, Chas. R.	aema-V-Fed	Benson
Allred, Leigh R.	aema-V-Fed	Deseret
Allred, Thatcher	a-Sp	Blackfoot, Idaho
Allred, Theras O.	ss	Logan
Alston, Ray L.	a-S-ss-Fed	Salt Lake City
Alvord, Harold S.	c-J	Logan
Alvord, Lewis G.	c-V	Logan
Amussen, Eleonora	ho-Sp	Logan
Amussen, Mrs. Odetta S.	ho-Sp	Logan
Anderson, Alfred W.	g-F	Salt Lake City
Anderson, Byron	a-F	Marysville
Anderson, Cervantes J.	a-V	Hyrum
Anderson, Clifford J.	c-V-Fed	Tremonton
Anderson, Duwayne L.	aema-F	Pleasant Grove
Anderson, Letha L.	ss	Lewiston
Anderson, Jas. A.	aema-So	Spanish Fork
Anderson, Jos. W.	a-V-Fed	Lyman, Wyo.
Anderson, Kai H.	g-F	Burmester
Anderson, Marian	ss	Magna

Anderson, Mary	ho-Sp	Logan
Anderson, Rachel	c-Sp	Grantsville
Anderson, Stanley R.	aema-S	Salt Lake City
Anderson, Sterling	c-F	Grantsville
Anderson, Waldo M.	c-So	Logan
Anderson, Woodruff H.	a-So	Logan
Andreassen, Clara	ss	Hyrum
Andrews, Anna	c-V	Logan
Andrus, Laura	ss	Spanish Fork
Andrus, Lenard M.	aema-G-Fed	Spanish Fork
Andrus, Lester	g-F-Fed	Spanish Fork
Andrus, Lucy	ss	Spanish Fork
Arave, Albert	aema-V	Hooper
Arave, Vernal L.	a-V-Fed	Shelley, Idaho
Argyle, Mark	aema-Sp	Spanish Fork
Arnold, Melvin S.	a-S	Salt Lake City
Arnold, Ralph J.	a-V-Fed	Germantown, Pa.
Arnsperger, Chester E.	a-V-Fed	Telluride, Colo.
Arthur, Walter E.	aema-V-ss-Fed	Logan
Ashman, Harold E.	a-V-Fed	Salt Lake City
Ashman, Mrs. Sarah H.	ho-V	Salt Lake City
Atkinson, Edna Mae	c-V	Logan
Atwood, Walter E.	a-F-Fed	Salt Lake City
Axline, William C.	a-V-ss-Fed	Riverton, Wyo.
Ayers, Frank J.	aema-V-Fed	Provo
Bachman, Blaine	c-So	Eden
Bachman, Comfort	c-J	Eden
Backman, Frank A.	aema-F	Santaquin
Backman, Geo. A.	a-J	Santaquin
Bagley, Almina L.	g-F	Ogden
Bailey, Reed W.	aema-So-ss	Logan
Bailey, Thos. K.	c-F	Arbon, Idaho
Baird, Ralph	aema-V	Lewiston
Baird, Willis E.	aema-V	Preston, Idaho
Baker, Leroy A.	aema-F	Tooele
Ball, Otto	aema V-Fed	Atchison, Kansas
Ballantyne, Bessie	ss	Richmond
Ballard, Leona	ho-V	Benson
Ballif, Louis S.	c-Sp	Preston, Idaho
Ballinger, Pearson A.	g-F	Ogden
Ballinger, Zelta	ss	Ogden
Bankhead, Heber N.	g-F	Logan
Barber, Adaliene	ss	Logan
Barber, Geo. P.	a-S-ss	Logan
Barber, O. Marie	Day ho-So	Logan
Barber, Ruth	g-J	Logan
Barber, Solon R.	g-G	Logan
Barber, W. Wendell	c-So	Logan
Barker, J. Roy	aema-S	Collbran, Colo.
Barker, Mignon	ho-S	Salt Lake City
Barnes, Ethelyn	ss	Morgan

Barney, Archie F. ss-Fed	Logan
Barrett, Eva M. g-So	Logan
Barrett, J. Milton g-F	Logan
Barrows, Mrs. Effie S. ss	Logan
Barson, Laree ho-V	Clarkston
Barson, Peter E. a-V	Clarkston
Bastow, Ivan S. a-V	River Heights
Bastow, J. Garfield aema-S	River Heights
Bateman, Alfred H. a-J	Paris, Idaho
Bateman, Geo. M. g-S	Paris, Idaho
Bates, Roy R. a-V	Wanship
Batt, Mrs. Jeanette T g-Sp	Logan
Batt, Chas. G. g-Sp	Logan
Beach, Floyd M. a-So-ss-Fed	Bloomington, Mich.
Beane, Wayne C. a-V-Fed	Salt Lake City
Becraft, Mrs. Ireta H. ss	Logan
Behring, Chas. K. aema-V	Salt Lake City
Bell, Frederick a-V-Fed	Elsinore
Bell, Olive ho-V-ss	Logan
Bell, W. Harold c-So	Logan
Belnap, R. Stanton c-F	Ogden
Bennion, Deane ho-Sp	Vernal
Bennion, Elma L. g-So	Logan
Bennion, Erma L. g-So	Logan
Bennion, Lavon g-G	Logan
Bennion, Leland c-V	Vernal
Bennion, Leo a-V	Salt Lake City
Bennion, Lora g-G	Logan
Bennion, M. Lynn a-F	Salt Lake City
Benson, Ezra T. aema-F	Whitney, Idaho
Benson, Frank A aema-V	Logan
Benson, Joseph aema-V	Whitney, Idaho
Benson, Margaret ho-F	Whitney, Idaho
Bentley, Eva ss	Trenton
Bentley, Vivian a-F	Colonia, Juarez, Chih. Mexico
Berger, Fred aema-V	North Logan
Bergeson, Mrs. Asia H. g-Sp	Logan
Berntson, Milton R. c-F	Logan
Berrett, Donald aema-V	North Ogden
Beutler, Walter aema-V	North Logan
Bickmore, C. Irving c-F	Logan
Bingham, David M. aema-V	Huntsville
Bingham, Fife aema-V	Blackfoot, Idaho
Bingham, Hazel ho-F	Ogden
Bingham, Jas. W. a-F	Cedaredge, Colo.
Binkley, Ralph V. a-V-Fed	Grand Junction, Colo.
Bird, Cyril aema-V-Fed	Mendon
Bird, Louise ss	Springville
Bjorkman, Chas. P. aema-So	Heber
Bjorkman, S. Robert a-So	Heber
Black, Thomas a-V-Fed	Coalville
Blackburn, J. Earl a-Sp	Delta

Blackham, John B. c-F	Moroni
Blanche, Geo. T. aema-V	Ogden
Blomquist, Luella c-F	Logan
Bohman, Chas. Alfred aema-F	Peterson
Boley, Glenn c-V	American Fork
Bonner, Russell M. a-V-Fed	Weatherford, Texas
Boothe, John Neff g-Sp	Weston, Idaho
Boothe, Norris c-V	Honeyville
Bowen, Gladys, ho-So	Honeyville
Bowen, Leslie aema-G	Spanish Fork
Bowles, Carl J. aema-Sp	Nephi
Bowman, Will W. a-So	Ogden
Boyd, Reece L. aema-V	Logan
Bradford, Lola R. ho-So	Spanish Fork
Brady, John c-F	Logan
Braithwaite, F. C. ss	Logan
Brazzale, Frank aema-V-Fed ss	Italy
Brewer, Reason A. aema-F-Fed	Logan
Brimhall, Ernest a-V	Fruitland, New Mex.
Brimley, Wilford C. ss	Logan
Brower, Bertha ho-V	Freedom, Wyo.
Brown, Bessie ss	Hyrum
Brown, Clair aema-V	Ogden
Brown, Mrs. Effie ho-Sp-ss	Logan
Brown, Gladys g-F	Logan
Brown, Henry aema-V	Ogden
Brown, Jennie ss	Hyrum
Brown, Merle W. aema-V-ss-Fed	Levan
Brummett, Wesley B. a-V-ss-Fed	Duchesne
Bryan, Alexander J. a-So	Tooele
Buckwalter, Mildred ho-So-ss	American Fork
Budge, Blanche I ho-F <i>Mrs. John M. Bluff</i>	River Heights
Budge, Margaret A. ho-F-ss	River Heights
Budge, W. Ivaloo ho-F	Logan
Bullen, H. Keith aema-So	Logan
Bunker, Ralph C. a-F-Fed	Delta
Burgin, C. Henry aema-V	Lehi
Burgin, Harold O. aema-V-Fed	Santa Barbara, Calif.
Burton, Veva g-Sp-ss	Logan
Burgoyne, Ivan E. a-V	Logan
Burgoyne, John M. aema-So	Montpelier, Idaho
Burgoyne, Richard M. a-V	Montpelier, Idaho
Burke, Chas. W. aema-Sp	Benche, Idaho
Burnham, C. Alvira ho-V	Brigham
Burnham, Virginia c-V	Logan
Burningham, Josephine ho-F	Bountiful
Burnside, James C. aema-V-Fed	Mt. Pleasant
Burnside, Nathaniel M. aema-V-Fed	Mt. Pleasant
Bush, A. Harold g-F	Malad, Idaho
Rushman, Silas A. ss	Snowflake, Arizona
Butcher, Oliver D. ss-Fed	Salt Lake City
Butler, Helen U. ss	Hugo, Oklahoma

Butler, Ray a-So	Payson
Buttars, Lucy ho-V	Clarkston
Buttars, Sadie c-V	Clarkston
Buttars, Thos. J. g-V	Clarkston
Caikowski, Stanley a-V-Fed	Denver, Colo.
Caldwell, James O. aema-V-Fed	Salt Lake City
Call, Cyril A. aema-F	Logan
Call, Lila ho-F	Rigby, Idaho.
Call, Orvis A. a-V-ss-Fed	Ogden
Cameron, Robert a-F	Salt Lake City
Campbell, A. Clem g-J	Logan
Campbell, Archie ss-Fed	Las Animas, Colo.
Campbell, Curtis aema-V	Ogden
Campora, Domenico g-V	Trenton
Cannell, Esther c-V	Smithfield
Cannon, Alan M. a-Sp	Salt Lake City
Cannon, Chas. W. a-F	Salt Lake City
Cannon, Douglas g-J	St. George
Card, Steling R. aema-V	Logan
Cardon, Nellie ss	Logan
Cardon, Rula g-F	Logan
Carlson, Elva G. ss	Logan
Carlson, John W. a-So	Logan
Carlson, Victor E. aema-V	Logan
Carman, Garold C. c-F	Ogden
Carpenter, Edwin S. aema-V	Manti
Carpenter, Ruth ss	Preston, Idaho
Carroll, Margaret K. ho-S	Orderville
Carroll, Rulon J. a-So	Orderville
Carter, Chas. H. aema-So	Vernal
Carter, Lawrence c-V	Vernal
Case, Mrs. Helena B. ss	Ogden
Case, Jean D. ss	Ogden
Cash, Carroll aema-V	Smithfield
Chamberlin, Amanda g-F	Ogden
Chamberlain, Karl S. a-F-Fed-ss	Provo
Chambers, C. Arthur a-F	Ogden
Chambers, Wm. J. aema-V-ss	Fall Creek, Wis.
Chandler, Harold M. a-F	Salt Lake City
Chandler, Harvey aema-V	Ogden
Channel, Emery aema-V-Fed	Mt. Enterprise, Texas
Cheney, Mark W. aema-V	Laketown, Utah
Cheney, Walton A. c-V	Logan
Cherry, Alfred K. c-F	Mt. Pleasant
Cherry, Louise c-F	Mt. Pleasant
Cherry, Winona K. ho-So	Mt. Pleasant
Child, Artell, a-V	Hooper
Chilton, Jay ss	Lehi
Chipman, Irene ho-So	American Fork
Chipman, Merle S. ho-S-ss	American Fork
Choules, Geo. c-Sp	Preston, Idaho
Christensen, Chester H. a-V	Richfield



Christensen, Claud aema-V .....	Moroni
Christensen, Constance G-So .....	Malad, Idaho
Christensen, Emille, c-F-ss-Fed .....	Brigham
Christensen, Erval a-So .....	Provo
Christensen, Jas. Morris c-S .....	Logan
Christensen, Jos. a-V-Fed .....	Salt Lake City
Christiansen, Jos. R. a-So .....	Fountain Green
Christensen, Leona E. ho-V .....	Central, Idaho
Christensen, Melvin c-V .....	Tremonton
Christensen, Ruth ss .....	Clarkston
Christensen, Thelma ss .....	Monroe
Christensen, Wm. E. a-V .....	Moroni
Clancy, Richard E. aema-V-ss-Fed .....	Lamar, Colo.
Clark, Arthur R. c-F .....	Springville
Clark, Esther g-F .....	Brigham
Clark, Josephine ss .....	Farmington
Clark, Myral G. a-V .....	Morgan
Clark, Ray a-F .....	Coalville
Clark, S. Cyril c-J .....	Logan
Clark, Thos L. aema-V .....	Ogden
Clawson, J. Harold ss .....	Providence
Clawson, Julia ss .....	Preston, Idaho
Clawson, Leslie T. c-F .....	Providence
Clayton, Merlin A. aema-V .....	Salt Lake City
Clegg, Martello a-Sp .....	Heber
Clegg, Rue L. a-So .....	Heber
Clegg, Wm. D. aema-V .....	Bench, Idaho
Clements, Chas. J. a-V-Fed .....	Ogden
Cleveland, Ellsworth aema-V .....	St. Charles, Idaho
Clifford, Percy a-V-Fed .....	Ogden
Clyde, G. Dewey aema-S .....	Springville
Clyde, Harry S. aema-So .....	Springville
Colby, Estella ss .....	Mendon
Cole, Truman J. ss .....	Logan
Cole, Wilford C. a-F .....	Nephi
Coles, Herschal H. aema-F .....	Tremonton
Collins, L. Richard c-V .....	Logan
Comish, Della B. ho-F .....	Franklin, Idaho
Comish, Reata ss .....	Franklin, Idaho
Condie, Thos. L. c-V .....	Logan
Condie, Vivian ss .....	Preston, Idaho
Condit, S. Amanda g-S .....	Logan
Connors, Carl W. aema-V-ss-Fed .....	Denver, Colo.
Conroy, Edward E. a-G .....	Ogden
Conroy, Maurice R. c-So .....	Ogden
Conway, Herman M. a-So-ss-Fed .....	Seymour, Ind.
Conway, Mrs. Margaret ho-Sp .....	Logan
Cook, Francis H. a-V .....	Willard
Cook, Leah ho-So .....	Springville
Cooley, LaVell g-V .....	Logan
Coombs, Nellie g-Sp .....	Fielding

Coon, Wilfred, a-V-Fed.....	Magna
Coray, Clarence A. aema-So .....	Ogden
Corbett, D. Melvin aema-So .....	Smithfield
Cordingley, Myron L. aema-F .....	Marysvale, Idaho
Cordner, Frank C. aema-V-Fed .....	Provo, Utah
Cornell, Mary E. ss .....	Fruita, Colo.
Cornwall, Sidney a-F .....	Murray
Cotter, Ralph U. ss .....	Lehi
Countryman, Ova E. aema-So .....	Bingham Canyon
Cowan, Glenn F. a-F. Fed.....	Payson
Cowan, Martha ho-So .....	Payson
Cowley, Elna g-F-ss .....	Logan
Cowley, Samuel P. c- V .....	Logan
Cranney, Kimball J. c-F .....	Logan
Crawford, Darrell c-V .....	Logan
Crockett, Mrs. Evelyn G. ho-S .....	Logan
Crockwell, Stuart H. aema-F-ss-Fed .....	Salt Lake City
Croft, Gordon Y. g-So .....	Ogden
Croft, John a-F .....	Ogden
Crook, Laurence M. aema-So-Fed-ss .....	Payson
Crook, Leola M. ho-V .....	Boneta
Crook, Reno G. a-S .....	Boneta
Crook, Wm. C. a-G .....	Logan
Crookston, Edna ho-J-ss .....	North Logan
Crookston, Jesse L. aema-V .....	Hyrum
Crosgrove, Chas. L. a-Sp .....	Draper
Crosland, Lawrence aema-V-Fed .....	Holden
Crosser, Clyde C. a-V-ss-Fed .....	Thermopolis, Wyo.
Crowther, Edna ho-Sp .....	Malad, Idaho
Croxford, Lloyd a-F .....	Murray
Cruser, Irene ho-V .....	Monticello
Curry, Allen L. a-V .....	Heber
Cutler, Eugene M. aema-V .....	Kilgora, Idaho
Cutler, Retta L. ho-F .....	Lehi
Dahle, Gilbert L c-V .....	Logan
Dahle, Verna ho-F .....	Logan
Daines, Hazen g-F-ss .....	Hyde Park
Daines, Luella P. ss .....	Logan
Daines, Lydia J. ss .....	Hyde Park
Daines, Sadie R. g-Sp .....	Logan
Daley, David E. c-F-Fed .....	Provo
Dalton, Hiram E. aema-F-ss-Fed .....	Visalia, Cal.
Dance, Theodore c-V .....	Blackfoot, Idaho
Datwyler, Jos. c-V-Fed .....	Logan
Davenport, Ralph aema-V-Fed .....	Butte, Mont.
Davidson, Mervyn aema-V-ss-Fed .....	Logan
Davidson, S. Leona ho-F .....	Logan
Davis, Esther ho-V .....	Pleasant View, Idaho
Davis, Margaret R. ho-Sp .....	Willard
Davis, Oliver J. a-V .....	Weston, Idaho
Davis, Owen c-V .....	Gwenford, Idaho

Dawson, Ray c-F	Layton
Day, Maeser E. aema-V	Oakley, Idaho
Delano, Arlie A. a-V-Fed	Strawberry Pt., Iowa
Denning, W. Vernal c-Sp	Pocatello, Idaho
Denton, Rufus M. a-V-Fed	Hayden, Colo.
Despain, Robert E. a-V-Fed	Lovell, Wyo.
Dewey, H. Asa ss	Logan
Dieckman, Adolph R. a-V-ss-Fed	Rupert, Idaho
Diehl, Erastus J. a-So-ss-Fed	Filer, Idaho
Diehl, Clair M. ss	Atlanta, Georgia
Dobbins, Sebastian A. a-V-Fed	Martin Ferry, Ohio
Donelson, Phenoy C. ss-Fed	Salt Lake City
Dorius, Paul F. g-F	Salt Lake City
Douglas, Ernest C. a-V-Fed	Zillah, Wash.
Draney, Jos. E. aema-V-ss-Fed	Ogden
Drew, Katherine ss	Huntington Park, Calif.
Dudley, Park aema-V	Logan
Duggan, Grant N. a-V-Fed	Denver, Colo.
Dumke, Hobart R. a-V-ss-Fed	Farmington
Dunford, Sterling E. aema-V	Logan
Dunkley, Milfred ss	Franklin, Idaho
Dustman, Jos. E. c-V	Deweyville
Dustman, Rose V. ho-V	Deweyville
Eagar, James H. a-V-ss-Fed	Nephi
Eagar, Mrs. Mattie C. ho-F	Nephi
Eames, Leona c-So	Logan
Earl, Clara c-V	Logan
Earl, Ernest G. aema-V	Logan
Eastman, Earl H. aema-F	Evanston, Wyo.
Eastman, Eric E. a-G	Los Angeles, Cal.
Eccles, Nora g-F <i>Jones &amp; think ??</i>	Logan
Edmunds, Charlotte ss	Logan
Edmunds, Ruby ho-S	Salt Lake City
Edwards, Verd a-V	Rigby, Idaho
Egbert, Anna g-S	Lewiston
Egbert, Del Mar a-F	Logan
Egbert, Herchel S. a-V	Logan
Eggen, Silas T. a-V-ss-Fed	Bennmore
Eliason, Jos. aema-V	Bancroft, Idaho
Ellis, Reuben A. a-Sp	Pleasant Grove
Ellison, Edward c-F	Layton
Ellsworth, Von T. aema-F-Fed	Pocatello, Idaho
Elison, Jos. aema-V	Bancroft, Idaho
Elsmore, Aldia ho-F	Silver City
Engemann, Marguerite ss	Eureka
England, Eva c-F	Logan
Ensign, Geneva g-So	Logan
Erickson, Albert aema-F	North Logan
Erickson, Elgin W. a-So	Sandy
Erickson, Mabel ss	Logan
Erickson, Viola M. c-V	Logan

Ernstrom, Mary ss .....	Ogden
Eschler, Alvin K. aema-V .....	Logan
Esplin, Evelyn ho-S .....	Orderville
Etter, John J. aema-F-ss-Fed .....	Albuquerque, N. M.
Evans, Dora g-J .....	Nephi
Evans, Evard A. aema-V .....	Raymond, Idaho
Evans, George C. aema-V-Fed .....	Bennett
Evans, Gladwin aema-V .....	Logan
Evans, Harold aema-V .....	Logan
Evans, Hilton B. a-S .....	Salt Lake City
Evans, James W. J. a-So .....	Malad, Idaho
Evans, Leone ho-F-ss .....	Salt Lake City
Falck, Louis c-So .....	Ogden
Falslev, Marinus J. a-V-Fed .....	Benson
Farrell, Janet E. c-V .....	Logan
Fawson, Lyman, aema-F .....	Grantsville
Feil, Fred C. c-F .....	Ogden
Felt, Jos. E. ss .....	Huntsville
Felt, Mrs. Olive ss .....	Providence
Fenley, Pickney a-V-Fed .....	El Paso, Texas
Ferguson, Bruce D. aema-So .....	Spanish Fork
Fergusin, Hollis D. a-V-Fed .....	Mack, Colo.
Fife, Milton J. a-F .....	Logan
Fifield, Jesse H. a-V-ss-Fed .....	Weston, Idaho
Finlayson, Erma ss .....	Logan
Finlinson, Leda ho-F .....	Leamington
Fish, Lynwood L. aema-V-ss-Fed .....	Logan
Fish, Murland W. g-So-ss .....	Logan
Flanders, H. Edward g-S-ss .....	Logan
Fletcher, S. Ross aema-V .....	Thatcher, Arizona
Fogg, Lucile ho-F .....	St. Anthony, Idaho.
Fogg, T. Vernon c-V .....	St. Anthony, Idaho
Folkman, Isabel c-V .....	Logan
Forbes, Clarence H. aema-G .....	Ogden
Fornoff, Homer aema-Sp .....	Ogden
Forsgren, Hazel ho-So .....	Brigham
Forsgren, J. Clifford a-F .....	Preston, Idaho
Fowler, Mrs. Rachel ss .....	Huntsville
Fowles, Jos. D. aema-F-Fed .....	Ogden
Fox, Willis H. aema-V-Fed .....	Denver, Colo.
Francis, Marjorie A. g-V .....	Logan
Franson, Pearl E. ss .....	Oakley, Idaho
Frawley, E. Geo. aema-V .....	Pocatello, Idaho
Frazer, Edward G. c-V-ss-Fed .....	Weldona, Colo.
Frazier, Fay M. aema-V-Fed .....	Oakley
Frederick, Elfriede g-So-ss .....	Logan
Frederickson, Dewey J. a-V .....	Malad, Idaho
Frederickson, Eugene aema-V .....	Weston, Idaho
Frederickson, Geo. W. aema-V .....	Weston, Idaho
Freestone, Geo. A. aema-V-Fed .....	Oakley, Idaho
Frischknecht, Carl a-So .....	Manti

Fronger, Sybil g-S	Idaho Falls, Idaho
Fry, Verle N. aema-F	Logan
Fuhrman, Leonard aema-V	Providence
Fuller, Dora ho-S	Eden
Funk, Carmen ss	Richmond
Funk, Claudia ho-F	Richmond
Funk, LeRoy C. a-S	Richmond
Gadd, W. Earl g-F	Nephi
Gardner, Alphonzo D. aema-V	Deweyville
Gardner, Leo V. a-V	Sandy
Gardner, Leroi B. a-So	Lehi
Gardner, Reid H. c-Sp	Lehi
Gardner, Vernal D. c-J	Murray
Garner, Ray D. a-V-Fed	Rexburg, Idaho
Garrett, J. Lawrence g-F	Nephi
Garrett, Wm. B. c-V	Wellsville
Garton, Percy F. a-V-Fed-ss	Delta, Colo.
Geddes, Elva ss	Preston, Idaho
Geddes, Martha g-F	Worland, Wyo.
Geddes, Robert W. aema-V	Logan
George, Harvey W. c-V-Fed	Salt Lake City
Gessel, Carl aema-V	Logan
Gilgen, Robert aema-V	Logan
Gillespie, Frank A. aema-V-Fed-ss	Murray
Glesing, Harry E. aema-V-Fed	Logan
Glover, Maud g-F	Brigham
Goodsell, Chas. A. aema-V	Logan
Gordon, Edith g-F	Smithfield
Gospill, Howard W. a-So	Milford
Gowans, Max L. a-F	Tooele
Grant, Waldo aema-V	Honeyville
Greaves, Mrs. Ethelyn O. ho-G-ss	Logan
Green, Chloe c-V	Logan
Green, Harold W. aema-Sp	Wellsville
Green, Raymond W. a-So-Fed-ss	Wellsville
Green, Rollin aema-V	Hooper
Greenhalgh, Alma c-V	Logan
Gregory, Fred E. a-V-Fed	Delores, Colo.
Griffin, Louis H. c-F	Ogden
Griffin, Lillian ss	Newton
Griffin, Walter T. aema-V	Ogden
Griffiths, Maria ho-V	Smithfield
Grimaud, Virginia c-So-ss	Logan
Groeble, Geo. A. aema-Sp	Logan
Groesbeck, W. Berton g-So	Springville
Gubler, Helen A. g-G	Santa Clara
Gunnell, Mrs. Elsie ss	Wellsville
Gurell, Norbert A. aema-V-Fed	Randolph
Gustavson, Ernest L. a-V-Fed	Vernon
Hadfield, Bereniece ho-Sp	Cardston, Alta, Canada
Hadfield, Edward a-So	Salt Lake City



Hadley, Lawrence	aema-V	Ogden
Haight, M. Zina	ho-F	Oakley, Idaho
Haldeman, Ward F.	a-F	Pine Grove, Pa.
Hale, Sumner E.	c-V	Oakley, Idaho
Hales, H. Lee	a-F	Oakley, Idaho
Hall, Benj. I. Jr.	aema-V-Fed	Logan
Hall, G. Raymond	a-V	Ogden
Hall, Eugene	a-V	Ogden
Hamp, Mrs. Malfre	ho-V	Logan
Hansen, Carol	ho-So	Bountiful
Hansen, Clarice T.	ho-So	Providence
Hansen, Donald J.	aema-V	Ephraim
Hansen, Ernest L.	g-So	Logan
Hansen, Ernest R.	a-S	Salt Lake City
Hansen, Lillis C.	aema-V	Trenton
Hansen, Lola	g-F	Brigham
Hansen, Madge	g-F	Rigby, Idaho
Hansen, Merrill	aema-V	Logan
Hansen, Nellie P.	ho-Sp	Logan
Hansen, Nels S.	c-Sp	Logan
Hansen, Percy	aema-J	Smithfield
Hansen, Willard M.	c-So	Salt Lake City
Hardy, Leon D.	c-G-ss	Logan
Harmon, Frank N.	a-S	St. George
Harmston, Albert F.	aema-V-Fed-ss	Roosevelt
Harper, Thos. R.	a-V	Honeyville
Harris, Alfredo	a-V-Fed-ss	Pagosa Springs, Colo.
Harris, E. Eugene	a-V	Salt Lake City
Harris, Forrest E.	aema-V	Denver, Colo.
Harris, Karl O.	aema-So	Logan
Harrison, Alton B.	c-F	Logan
Harrison, James A.	aema-V-Fed-ss	Lapoint
Harrison, Lee B.	g-F	Logan
Hart, Carl E.	ss-Fed	Kennesburg, Colo.
Hart, Chas. J.	a-J	Salt Lake City
Hartman, Fred L.	ss-Fed	Alamosa, Colo.
Harvey, Hugh	a-S	Heber
Hatch, Geneive	ho-So	Woods Cross
Hatch, Houston	a-V	Panguitch
Hatch, Katherine C.	ho-F-ss	Franklin, Idaho
Hatch, Lafayette T.	c-So	Logan
Hatch, Launa	c-V	Oxford, Idaho
Hatch, Leah	ss	Franklin, Idaho
Hatch, Mary	c-So	Woods Cross
Hatch, Meltiar V.	c-F	Panguitch
Hartle, Mrs. Lucile C.	g-Sp	Logan
Hartley, Ernest	a-V	Malad, Idaho
Hawkes, Percy	a-V	Logan
Hawkey, Levi S.	aema-V	Iona, Idaho
Haws, Gladys	c-V	Logan
Haws, Mabel	c-V	Logan
Hayes, Emmett R.	g-Sp	Pleasant Grove

Hayes, Harry M. a-V-Fed .....	Grand Junction, Colo.
Hayes, J. Francis c-So .....	Salt Lake City
Heggie, Felicia ho-S-ss .....	Clarkston
Heinrich, Esther J. ss .....	Smithfield
Hendricks, C. Durrell c-F .....	Logan
Hendricks, I King g-So .....	Richmond
Hendry, Marie ss .....	Wellsville
Henrie, Irvin L. aema-J .....	Manti
Hess, W. Roscoe g-V .....	Logan
Heywood, David E. a-J-ss .....	Thatcher, Arizona
Heywood, Ida ho-S .....	Panguitch
Heywood, Velma ss .....	Mesa, Arizona
Hicken, Geneva ho-F .....	Heber
Hicken, Wm. R. ss-Fed-aema-V .....	Meeker, Colo.
Hickle, Homer A. aema-V-Fed-ss .....	Divide, Colo.
Hickman, James H. aema-Sp .....	Tooele
Hickman, Juanita ss .....	Logan
Hickman, Leonidas M. g-Sp .....	Logan
Hickman, Radino L. c-F .....	Logan
Hicks, Mark L. aema-V-Fed .....	Kanab
Hill, Geo. D. aema-V-Fed .....	Mountainburg, Ark.
Hinckley, Mabel g-Sp .....	Hinckley
Hinckley, Paul B. g-F .....	Ogden
Hinckley, Rulon T. a-Sp .....	Hinckley
Hinman, Karl G. c-S .....	Farmington
Hintze, Alvin B. a-J .....	Murray
Hirt, Francis M. aema-F .....	Ogden
Hitzker, Albert J. aema-V-Fed .....	Winona, Minn.
Hofacre, John P. a-V-Fed .....	Glenwood Springs, Colo.
Hogensen, Mrs. Lydia B. ss .....	Logan
Holibaugh, C. Lloyd aema-V-Fed-ss .....	Los Angeles, Calif.
Holm, Adelaide ss .....	Hyrum
Holm, Addison Stanley c-So .....	Hyrum
Holman, Chas. W. a-V-Fed .....	Marble Falls, Texas
Holmgren, Lydia ss .....	Bear River City
Holt, Gladys ho-So .....	Spanish Fork
Holton, Leroy B. aema-V-Fed .....	Bennington, Vt.
Homer, Elizabeth H. g-V-ss .....	Logan
Homer, John A aema-V .....	Smithfield
Homer, Leo K. g-J-ss .....	Logan
Hone, Geo. T. c-V .....	Malad, Idaho
Hooper, John C. g-So .....	Hooper
Horne, Aaron S. ss .....	Richfield
Horne, Mrs. Mary T. ss .....	Richfield
Hortin, Forrest aema-V .....	Oakley
Hortin, Glenn M. aema-V .....	Oakley
Houtz, Karl G. aema-V .....	Provo
Hubbard, Pauline ss .....	Willard
Hudson, Myron, a-V-Fed .....	Smithfield
Hughes, Ada ss .....	Logan
Hughes, Isabella ss .....	Logan
Hull, Clyde aema-V .....	Hooper

Hull, Robert R. a-Sp	Hooper
Hulme, Rita, ss	Logan
Hulse, Wm. aema-V	Rigby, Idaho
Humphreys, LaVon S. c-V	Logan
Hunsaker, Laland c-V	Honeyville
Hunter, W. Spencer a-So	Lewisville, Idaho
Hurren, Clarence A. ss	Hyde Park
Hurst, Merlin L. aema-V	North Logan
Hurst, Wm. F. aema-V	North Logan
Hussey, Norma ho-F	Ogden
Hyde, O. Wendell g-F	Logan
Hyde, Oneita ss	Hyde Park
Hyde, Ora ss	Fairview, Idaho
Hyden, J. Sidney aema-V	Foremost, Alta, Canada
Hyer, Lovell ho-V	Lewiston
Illum, Edgar S. a-V-Fed	Malad, Idaho
Ipson, Ivan aema-V	Huntington
Israelson, Orson W. g-G	North Ogden
Ivins, Bliss, ho-F	Lund, Nevada
Ivins, Harols R. aema-V	Lund, Nevada
Ivins, Loraine a-F	Lund, Nevada
Jackson, Miriam ho-So	Logan
Jacobs, Helena ss	Rexburg, Idaho
Jacobson, P. J. c-V	Safford, Arizona
James, Jennie ss	Paradise
Jamison, Clarence E. aema-V	Lewiston
Jamison, Lula ho-Sp	Logan
Jardine, Wanda c-V	Logan
Jenkins, Hattie ss	Newton
Jenkins, Leslie M. g-Sp	Logan
Jenkins, Louie ss	Freedom, Wyo.
Jensen, Adolph L. g-Sp	Ephraim
Jensen, Hazel M. g-So	Bear River City
Jensen, Hyrum S. aema-V-Fed	Ogden
Jensen, Izola D. ho-F	Ephraim
Jensen, Mildred ss	Cornish
Jensen, Oleen A. a-F	Preston, Idaho
Jepperson, Owen H. aema-V	Corrine
Jerman, I. Donald aema-S	Santaquin
Jessop, E. Donald g-F-ss	Millville
Jessop, Vergel Y. aema-V	Millville
Jex, Francis H. c-F	Spanish Fork
Johnson, Alta ho-So	Grantsville
Johnson, Austin L. aema-V	Bear River City
Johnson, Clover V. g-F-ss	Logan
Johnson, Eric A. c-S	Logan
Johnson, Estella ss	Avon
Johnson, George McCoy a-So	Grantsville
Johnson, Greta ho-So	Richfield
Johnson, J. Arthur ss	Brigham
Johnson, Melvin A. g-F	Bear River City

Johnson, Pharis c-F .....	Grantsville
Johnston, Owen H. ss .....	Vernal
Johnston, Peter Rich a-So .....	Blackfoot
Jones, Aaron B. aema-V-Fed .....	Salt Lake City
Jones, Daniel W. c-V .....	Samaria, Idaho
Jones, Eliza A. ss .....	Newton
Jones, Franklin L. aema-V-Fed-ss .....	Sandy
Jones, Fred A. aema-V-Fed .....	Las Animas, Colo.
Jones, Gladys ho-So .....	Salt Lake City
Jones, Hyrum P. ss-Fed .....	Enoch
Jones, Katie E. ho-F .....	Malad, Idaho
Jones, Lawrence W. a-F .....	Monroe
Jones, Luella P. ho-S-ss .....	Logan
Jones, Marie ss .....	Malad, Idaho
Jones, Sylvia J. ss .....	Malad, Idaho
Jorgensen, Ernest aema-V-Fed-ss .....	Manti
Jorgensen, Geo. E. a-V-Fed .....	Salt Lake City
Jorgensen, Hazel Armada c-V .....	Logan
Jorgensen, Milton aema-V .....	King
Jorgensen, Osmond O. c-So .....	Logan
Jory, Ted a-V-Fed-ss .....	Sapinera, Colo.
Judd, Marguerite g-F .....	Salt Lake City
Judd, Samuel H. c-Sp .....	Eureka
Jussewig, Louis de aema-Sp-Fed-ss .....	El Paso, Texas
Karren, Leavitt aema-V .....	Lewiston
Keller, Allen D. g-F .....	Logan
Keller, Melvin M. c-Sp .....	Mink Creek, Idaho
Kelley, Clarence L. a-V-Fed .....	Lava Hot Springs, Idaho
Kelley, Frederick H. a-V-Fed-ss .....	London, England
Kelley, Russel M. aema-F-ss-Fed .....	Canton, Kansas
Kelley, Vea R. a-V-Fed-ss .....	Fresno, Calif.
Kendall, Wm. W. aema-V-Fed .....	Salt Lake City
Kennard, Frank g-F .....	Logan
Kenner, R. Lee a-J .....	Manti
Kennington, Cyrene ho-V .....	Treasureton, Idaho
Kent, Claude aema-V .....	Lewiston
Kent, Lavene ho-V .....	Lewiston
Kent, Verna ho-Sp .....	Lewiston
Keoppel, Phillip aema-V-Fed-ss .....	Denver, Colo.
Khan, Ameen a-G-ss .....	Teheran, Persia
Khan, Jafar S. ss .....	Teheran, Persia
Kilburn, A. Golden a-F .....	Morgan
Killpack, J. Movell a-Sp .....	Huntington
Kimball, Chester C. aema-V-Fed .....	Ft. Duchesne
Kimball, Chase R. g-J .....	Driggs, Idaho
King, Edward aema-V-Fed .....	Rupert, Idaho
King, Geo. Edw. a-G .....	Garland
King, Irene c-V .....	Logan
King, Ona J. ss .....	Kamas
King, Ralph T. aema-V-Fed-ss .....	Sterling, Colo.
Kirk, Harvey a-F .....	Tooele

Knight, Geo. C. a-S-Fed .....	Kamas
Knight, Gladys Y. ho-V .....	Salt Lake City
Knight, Kenneth a-Sp .....	Salt Lake City
Knowles, Willard B. a-F .....	Logan
Knowlton, Geo. F. a-G .....	Salt Lake City
Knudsen, Hyrum C. a-V-Fed .....	Blue Water, New Mexico
Kofoed, Paul R. c-V .....	Lava Hot Springs, Idaho
Kotter, Horace H. a-F .....	Logan
Krebs, Rowland a-V-Fed .....	Myton
Kung, Seymour S. g-V-Fed .....	Logan
Kunz, Zina c-F-ss .....	Logan
LaBeau, Arthur aema-V-Fed-ss .....	Silver City, New Mexico
Laible, Albert F. aema-F .....	Ogden
Langton, Lucie G. g-So .....	Shelley, Idaho
Larsen, Axel H. aema-V-Fed .....	Douglas, Wyo.
Larsen, Ada ss .....	Logan
Larsen, Esther ss .....	Preston, Idaho
Larsen, E. Arlen aema-Sp .....	Preston, Idaho
Larsen, Floyd C. aema-So .....	Logan
Larsen, Hazel ss .....	Logan
Larsen, Helen c-So .....	Mt. Pleasant
Larsen, Myrtle ss .....	Smithfield
Larsen, N. Platt c-Sp .....	Preston, Idaho
Larsen, Orlean c-V .....	Logan
Larsen, Orpha ss .....	Mendon
Larsen, Parley R. c-So-ss-Fed .....	Logan
Larsen, Radia P. g-J .....	Preston, Idaho
Larsen, Roldo a-V-Fed .....	Axtell
Larsen, Rue ss .....	Preston, Idaho
Latimer, Jas. L. c-V-ss-Fed .....	Garfield
Laub, Emma K. g-S .....	Logan
Law, Albert J. c-F .....	Logan
Law, Elizabeth J. ho-Sp-ss .....	Logan
Lee, Eli F. ss .....	Hyrum
Leigh, Carrie ho-So .....	Cedar City
Lemmon, Claud C. ss .....	Mendon
Lemon, Frank D. a-V .....	Ferron
LeVora, John J. aema-V-Fed .....	Chicago, Ill.
Lewis, Reva ho-J .....	Payson
Lewis, Willard J. c-F .....	Logan
Lindblad, Victor L. g-V .....	Logan
Lindley, Bert J. aema-V .....	Wayan, Idaho
Lindsay, Agnes ss-ho-J .....	Heber
Linford, Arletta ho-Sp .....	Garland
Linford, Arthur J. a-F .....	Garland
Linford, Chas. H. a-So .....	Garland
Linford, Leon B. g-F .....	Logan
Linford, Maurice B. a-So .....	Logan
Lloyd, Annie ss .....	Logan
Lloyd, Chas. P. a-V .....	St. Anthony, Idaho
Lloyd, Lucile g-F .....	St. Anthony, Idaho



Loberg, Bjarne I. a-V-Fed-ss .....	Minneapolis, Minn.
Logan, John S. aema-Sp-Fed .....	Sharptown, Md.
Logsdon, Jas. F. aema-V-Fed .....	Dillon, Colo.
Long, Elmer R. ss-Fed .....	St. Bernice, Ind.
Longhurst, G. Leonard a-V-Fed .....	Woodruff
Loose, Clarence C. c-F .....	Provo
Lothyan, Whitney M. ss .....	Manassa, Colo.
Lougee, John a-Sp-Fed .....	Sharon, Idaho
Lorentzen, Eden C. ss .....	Salina
Love, Wilbur J. aema-V-Fed-ss .....	Springville
Loveland, Chester a-V-Fed .....	Tabiona
Loveless, Glenn L. a-So .....	Payson
Low, Veda ss .....	Paris, Idaho
Lowe, Aletha D. ho-Sp .....	Franklin, Idaho
Lowe, Mrs. Sarah ss .....	Tremonton
Lowe, Ruby ho-V .....	Franklin, Idaho
Loyd, Earl J. aema-F-Fed-ss .....	Rantoul, Kansas
Luke, Harold c-So .....	Brigham
Luke, Pearl ho-F .....	Salt Lake City
Lund, Yeppa a-G .....	Logan
Lyman, Frank C. aema-V .....	Parowan
Lyon, Frank M. aema-V-Fed .....	Ephraim
McAllister, Martin L. aema-V-Fed .....	Panguitch
McBride, Bessie B. ss .....	Pima, Arizona
McBride, Mrs. Cora G. ss .....	American Fork
McCawley, Edward H. a-V-Fed .....	American Fork
McCulloch, Lawrence L. c-V-Fed .....	Logan
McDonald, Howard aema-S .....	Murray
McDonald, Loa S. ho-S .....	Murray
Macfarlane, Donald C. aema-So .....	St. George
McGavin, Irma g-V .....	Idaho Falls, Idaho
McGavin, Jessie g-F .....	Idaho Falls, Idaho
MacKay, Ina ho-F .....	Salt Lake City
McKay, Morgan P. a-S .....	Logan
McKenzie, Leland a-V .....	Springville
McKinnon, Freeman F. g-F .....	Evanston, Wyo.
McLeod, Delgarno aema-V-Fed-ss .....	Rush, Colo.
McMullin, Edith ss .....	Leeds
McMullin, Thos. H. a-S .....	Heber
McNeil, Inez g-F .....	Logan
Madsen, Annie ss .....	Logan
Madsen, LaRue M. ho-F .....	Logan
Madsen, Leah ho-F .....	Ephraim
Madsen, Leonard M. c-F .....	American Fork
Madsen, Newel J. c-F .....	Logan
Madsen, Raymond J. g-V .....	Logan
Madsen, Richard A. a-Sp .....	Dewey
Magleby, Jos. aema-V .....	Monroe
Malmberg, Florence ss .....	Logan
Malsbury, Wm. C. ss-Fed .....	Humboldt, Kansas
Manning, James aema-V .....	Hooper

Manning, Leroy W. a-V-Fed	Garland
Marsh, Strawn, ss-Fed-aema	Denver, Colo.
Martin, Daniel W. c-V	Samaria, Idaho
Martin, Lavern c-V	Samaria, Idaho
Martineau, Aleen E. ho-F	Logan
Martini, Wm. aema-F	Thatcher, Arizona
Maughan, Angus M. g-S-ss	Logan
Maughan, Elsie ho-S	Logan
Maughan, Jas. C. aema-V	Benson
Maughan, Jos. S. a-So	Wellsville
Maw, Rufus R. aema-V	Ogden
Mawhinney, Wm. E. aema-F	Park City
Maxfield, Henry g-F	Logan
Maxwell, Cleaone ho-So	Peoa
Mayberry, Raymond aema-V	Hooper
Maycock, Miriam g-V-ss	Logan
Meder, Fred W. a-V-Fed	Tuttle, Okla.
Meek, Jerald R. aema-F	Preston, Idaho
Mellor, Zada g-F	Marti
Menard, Arthur S. aema-V-Fed-ss	Adams, Mass.
Mendenhall, Blanche ho-S	Springville
Mendenhall, Lois ho-F	Springville
Merrill, Anna M. ho-F	Logan
Merrill, Audene ho-F-ss	Richmond
Merrill, Effie E. ss	Logan
Merrill, Ethel L. g-F	Logan
Merrill, Glenn W. c-So	Preston, Idaho
Merrill, Ivin S. c-V	Richmond
Merrill, LaVille H. g-F	Richmond
Merrill, Loila D. ho-J	Logan
Merrill, Mrs. Millie L. ho-V-ss	Logan
Merrill, Olonzo David aema-So	Richmond
Merrill, Oretta D. ho-S-ss	Logan
Merrill, Ray S. a-F	Richmond
Merrill, Wilford J. c-J	Logan
Meyrick, Jos. c-Sp	Logan
Meyrick, Wm. E. c-V	Logan
Miles, Leah c-Sp	Logan
Miles, O. Pratt a-Sp-Fed	St. George
Miller, Elna ss	Logan
Miller, Horton C. ss	Logan
Miller, Irvin S. g-F	Logan
Minium, Jesse E. aema-V-Fed	Eureka
Mitchell, J. Harold a-So	Parowan
Mitton, LeRoy aema-V	Logan
Moffitt, Wells aema-V	Kenilworth
Montague, Lyonal A. ss	Lava Hot Springs, Idaho
Monson, Cyril c-F	Richmond
Monson, Vernon c-V	Smithfield
Monson, Wilford R. aema-Sp	Hyrum
Montgomery, Jos. K. aema-V	Ogden

Morgan, David D. aema-V .....	Logan
Morgan, Grant R. a-F .....	Spanish Fork
Morgan, Mary c-V .....	Logan
Morimoto, Geo. a-Sp .....	Hiroshima, Japan
Morley, Lafayette aema-Sp .....	Moroni
Mortensen, Martin P. a-V .....	Sugar City, Idaho
Mortensen, Pen B. ss-Fed .....	Sanford, Colo.
Morris, Laval S. a-So .....	Salt Lake City
Morris, Richard A. a-S .....	St. George
Morris, Sadie O. ho-F .....	Nephi
Mortensen, Jas. Leo a-S .....	Thatcher, Arizona
Mortensen, Martha ho-F .....	Logan
Mounteer, Percy W. aema-V-Fed .....	Union
Muir, Ethel ho-V .....	Logan
Murdock, Clarence a-F .....	Heber
Murdock, Irvine B. a-V-Fed-ss .....	Grand Junction, Colo.
Murray, Seymour B. aema-V-Fed .....	Wellsville
Nagle, Harold E. aema-So .....	Springville
Nash, Josie M. ss .....	Boise, Idaho
Naylor, John J. aema-V-Fed .....	Providence
Nebeker, Sidney J. g-So .....	Laketown
Nelson, Cecelia c-V .....	Logan
Nelson, Daniel H. g-Sp-ss .....	Logan
Nelson, Earl c-V-Fed-ss .....	Price
Nelson, Earl W. aema-Sp .....	Preston, Idaho
Nelson, Erma c-V .....	Logan
Nelson, Fidelia E. g-So .....	Logan
Nelson, Frank D. a-V .....	Mt. Pleasant
Nelson, Geo. T. aema-V-Fed .....	Enterprise
Nelson, Hazel ho-So .....	Logan
Nelson, Kenneth H. c-So .....	Provo
Nelson, Lela ho-V .....	Enterprise
Nelson, Naomi ho-F .....	Morgan
Nelson, Peter a-G .....	Logan
Nelson, Peter C. a-V-Fed-ss .....	Enterprise
Nelson, Parley L. a-Sp .....	Richmond
Nelson, Rebecca c-V .....	Logan
Nelson, Ray a-F .....	Heber
Netcher, Ray C. aema-V .....	Trenton
Neuenschwander, Clarence A. a-F .....	Salt Lake City
Neuenschwander, Lorenzo aema-V .....	Weston, Idaho
Neves, Jos. V. aema-V .....	Millville
Newman, Clarence a-V-Fed .....	Lander, Wyo.
Newman, Harry W. ss .....	Ogden
Nibley, Chas. W. III c-Sp .....	Logan
Nichols, David a-V-Fed .....	Lamont, Idaho
Nichols, Mark H. a-F .....	Brigham
Nicholls, Wm. a-F .....	Salt Lake City
Nielsen, Beatrice M. ho-J .....	Pocatello, Idaho
Nielsen, Edith ho-F .....	Hvrum
Nielsen, Eva Joy g-G-ss .....	Ephraim

Nielsen, Gladys ho-F .....	Hyrum
Nielsen, Leo H. c-J .....	Union, Oregon
Nielsen, Lillie ss .....	Logan
Nielsen, Oscar W. a-V-Fed .....	Millville
Nielsen, Phyllis ss .....	Logan
Nielsen, Russel B. a-V .....	Weston, Idaho
Noble, Flora ss .....	Logan
Noble, M. Jane ho-V .....	Logan
Norris, Herschel W. aema-V-Fed .....	Holly, Colo.
Norton, E. Virgil a-F .....	Salt Lake City
Nuffer, Louis F. a-G .....	Logan
Nuhn, Leslie C. ss .....	Avon
Nunnelley, Irene c-Sp .....	Garfield
Nunnelley, Thelma g-Sp .....	Garfield
Nuttall, Ethel ss .....	Provo
Oberhansley, Pearl g-S .....	Provo
Obray, Ernest S. a-So-Fed .....	Paradise
O'Brien, John J. a-V .....	Murray
O'Brien, Timothy Jr. aema-V-Fed .....	Powell, Wyo.
Odell, Afton ho-So-ss .....	Logan
Odell, Florence g-J-ss .....	Logan
Ogden, J. Arden aema-V .....	McCornick
Olesen, Einar B. c-S .....	Logan
Olesen, Esther A. c-V .....	Logan
Olesen, Granville a-Sp .....	Logan
Olson, Delno a-V .....	Logan
Olsen, H. Hugo aema-V .....	Peterson
Olsen, Henry C. aema-F .....	Logan
Olsen, Homer C. aema-V .....	Monroe
Olsen, Hortense ss .....	Bear River City
Olsen, Lillian ss .....	Hyrum
Olsen, Richard E aema-Sp .....	Hyrum
Olsson, Alice c-V .....	Logan
Orme, John A g-So .....	Nephi
Osmond, I. Fern g-So-ss .....	Logan
Osmond, John C. aema-V .....	Rigby, Idaho
Osmond, Waldo g-V .....	Logan
Osmond, Wendell c-F-ss .....	Logan
Otteson, Vern C. a-V-Fed .....	Sanford, Colo.
Owen, F. Vern a-S .....	Morgan
Owen, Luella B. g-V .....	Logan
Packard, Owen a-F .....	Springville
Packer, Grant P. aema-Sp .....	Preston, Idaho
Page, Anna ho-Sp .....	Payson
Page, Thos. D. a-V-Fed .....	Brigham
Palmer, Edwin J. aema-V-Fed-ss .....	Vernal
Palmer, Evelyn ho-So .....	Cedar City
Palmer, Levon aema-V .....	Plain City
Palmer, W. Wendell a-J .....	Malad, Idaho
Parke, Ralph a-So-ss-Fed .....	Kamas
Parker, Stella ss .....	Wellsville

Parker, Ianthus R. a-F .....	Hinckley
Parkinson, Glenn S. ss .....	Logan
Parkinson, Maurice aema-F .....	Wellsville
Parkinson, Wallace B. g-J .....	Logan
Parry, Norman ss .....	Salt Lake City
Parry, Wilford E. a-V-Fed-ss .....	Logan
Partridge, Clara ho-F .....	Salt Lake City
Patterson, Leonard aema-V .....	Hooper
Peacock, Mildred B. ss .....	Manti
Pearson, Lillie ho-V .....	Iona, Idaho
Pearson, Vera ss .....	Oakley
Peck, Bramwell L. c-So .....	Sugar City
Pedersen, Alice ho-F .....	Logan
Pedersen, Lyman C. c-So .....	Logan
Pehrson, Anthon Jr. aema-V .....	Logan
Pehrson, Raymond E. c-F .....	Vernon
Pendleton, Anthony a-F .....	St. George
Perkins, Walter G. g-F .....	Wellsville
Perry, P. Weston a-So .....	Salt Lake City
Peterson, Andrew aema- V .....	Logan
Peterson, Constance ss .....	Hyrum
Peterson, Collos S. aema-V .....	Hyde Park
Peterson, Elsie g-S .....	Portland, Oregon
Peterson, Harold g-G-ss .....	Bloomington, Idaho
Peterson, Harry L. aema-V .....	Scripio
Peterson, Irene g-Sp .....	River Heights
Peterson, Katherine g-V-ss .....	Fillmore
Peterson, Lester E. a-V-Fed. ....	Logan
Peterson, Maurine M. g-G-ss .....	Logan
Peterson, Mell ho-V-ss .....	Logan
Peterson, Merrill aema-F .....	Logan
Peterson, Moylen aema-Sp .....	Preston, Idaho
Peterson, Phyllis ho-V .....	Smithfield
Peterson, Royes a-F .....	Brigham
Peterson, Thelma ho-F .....	Portland, Oregon
Pike, Julian A. aema-F .....	Eureka
Pippin, Roscoe aema-V-Fed-ss .....	Gillette, Wyo.
Pixton, Robert L. a-S .....	Sandy
Pokriots, Eli D. aema-V-Fed-ss .....	Denver, Colo.
Porter, Ellen C. ho-V .....	Lewiston
Porter, Wilford D. g-J .....	Logan
Potter, Glenn S. aema-V .....	Bancroft, Idaho
Poulter, Lenore ss .....	Logan
Poulter, Manila ss .....	Logan
Powell, Alfred H. g-Sp .....	Logan
Powell, Harold O. aema-V .....	Logan
Price, Chas. a-S .....	Beaver
Price, Jackson a-F .....	Provo
Price, Maud g-So .....	Idaho Falls, Idaho.
Pugh, Jesse E. aema-V-Fed-ss .....	Monterey, Calif.
Purser, Jos. aema-V .....	Benson



Pulsipher, Leland G. ss	Avon
Quayle, James Wm. Jr. aema-F	Logan
Querry, Hattie Bell ho-So-ss	Mountain Home, Idaho
Rallison, R. Leo a-S	Preston, Idaho
Ralph, Verda c-V	Logan
Ramsperger, Albert G. g-J	Logan
Randall, Olive ho-F	Ogden
Randall, Percy E. aema-V	Ogden
Ranker, Emery R. a-F	Glen Ellen, Calif.
Rasmussen, Erba ho-So	Mt. Pleasant
Rasmussen, Geo. aema-V	Smithfield
Rasmussen, Gilbert H. aema-V	Smithfield
Rasmussen, Orson aema-V	Kilgore, Idaho
Ratcliffe, Bessie ss	Provo
Rawlins, Fern ss	Logan
Ray, Jos. F. c-V	Gilbert, Arizona
Read, Myrtle C. ho-F	Ogden
Read, Walter T. c-V	Ogden
Redington, Ray aema-V	Oxford, Idaho
Reece, Jennie A. ho-J	Payson
Reese, Robt. aema-V	Smithfield
Reid, Dalton M. a-V-Fed	Abraham
Reid, Geo. D. aema-V-Fed-ss	Logan
Reid, Ralph A. a-V	Ogden
Reid, Samuel R. a-V-Fed-ss	Tooele
Rice, Inez ss	Logan
Rice, James L. a-V-Fed-ss	Duchesne
Rice, Oscar L. aema-F	Logan
Rhead, Claude E. aema-V	Plain City
Rich, Geneva g-J	Logan
Rich, Letty g-So	Logan
Rich, Irene ho-G	Logan
Richards, Iva L. ss	Logan
Richards, Jos. H. a-V	Salt Lake City
Richards, Leland S. g-Sp	Ogden
Richards, Lorenzo A. ss	Brigham
Richardson, Rufus D. a-So	Kamas
Ricks, Francis S. a-V	Rexburg, Idaho
Ricks, Julia ss	Logan
Ricks, Paul C. aema-F	Logan
Rider, Marguerite ss	River Heights
Ririe, Boyd g-F	Lewiston
Riter, Wm. E. a-J	Logan
Roberts, Willard S. ss	Salt Lake City
Robbins, Alice ss	Salt Lake City
Robbins, Jos. M. a-V-Fed	Santaquin
Robins, Leon A. a-So	Layton
Robinson, Beth ho-So	Fielding
Robinson, Kenneth C. c-V	Logan
Robinson, Lamond W. a-F	Logan
Robinson, Thos. B. ss	Salt Lake City

Robison, G. Albert a-S	Hinckley
Robison, M. Dorwin aema-So	Logan
Rogers, Davis W. a-S-Fed-ss	Pima, Arizona
Rogers, Louise ho-F-ss	Pima, Arizona
Rose, Cora L. g-F	Hyrum
Rose, Lyle ss	Malad, Idaho
Rosengreen, Enid ss	Logan
Rosengreen, Harold g-F	Logan
Rosengreen, Ruby L. g-F-ss	Logan
Rosengreen, Ruth ss	Logan
Ross, Harold J. aema-V-Fed-ss	Logan
Ross, Vio ss	Richfield
Rossiter, Ruth ho-V	Providence
Rott, Anton aema-V-Fed-ss	Chicago, Ill.
Rowland, Priscilla ho-So	Logan
Rowley, Inger ss	Logan
Roylance, Hattie W. ho-Sp	Logan
Rude, Clarence A aema-V-Fed-ss	Ada, Minn.
Russell, Chas. H. a-Sp-Fed	Decatur, Ill.
Ryan, Chas. F. aema-V-Fed	Denver, Colo.
Sanford, Fred c-V	Springville
Sanford, Ralph B. a-Sp	Delta
Sanford, Susie H. ho-F	Delta
Sant, Ira c-F	Clifton, Idaho
Sant, May, c-V	Clifton, Idaho
Sauer, Dorothea ss	Sheldon, Iowa
Sauer, Flora ss	Sheldon, Iowa
Sauls, Kiefer B. c-G	Storrs
Savage, Willis J. a-J	Hyrum
Sax, Ira C. a-V-Fed	Wendell, Idaho
Schank, Leroy C. c-F	Providence
Scherer, Karl W. g-So	Provo
Schlappy, H. Arnold a-F	Delta
Scholes, Elinor ss	Logan
Seager, W. Kennedy a-F	Tremonton
Seaman, Geo. A. Jr. a-So	Morgan
Seegmiller, Carlos W. aema-Sp	Ogden
Seegmiller, Chas. Roscoe a-So	St. George
Seely, Chesley P. c-Sp	Mt. Pleasant
Selby, Arthur J. a-V-Fed	Sugar City, Idaho
Sessions, Alice c-F	Logan
Sessions, Alwyn a-F	Logan
Sgro, Charles L. aema-F	Park City
Shaw, Claris ss	Ogden
Shaw, Clarke C. a-V-Fed	Myton
Shaw, Earl W. aema-V	Tetonia, Idaho
Shaw, Mary ss	Logan
Sheffield, Ruel L. aema-V	Loa
Shelton, Lyle c-V	Magrath, Alta, Canada
Shepard, Dorothy A. g-V	Logan
Sherner, Dorothea ss	Ogden

Shy, Wm. H. aema-V-Fed-ss .....	Cheyenne Wells, Colo.
Siegfried, Joshua F. aema-So .....	Bear River City
Simons, Jennie ss .....	Los Angeles, Calif.
Simpson, Clyde L. aema-V .....	Weston, Idaho
Simpson, Weston aema-V .....	Iona, Idaho
Sjostrom, Harvey c-F .....	River Heights
Skanchy, Lillis ss .....	Logan
Skanchy, Verna L. ho-S-ss .....	Logan
Skidmore, Albert L. a-F .....	Delta
Slack, Arthur a-V-Fed-ss .....	Toquerville
Slaughter, Clark a-V-Fed-ss .....	Hinckley
Smith, Abbie ss .....	Logan
Smith, Ardella B. ho-So .....	Logan
Smith, Arthur B. a-J .....	Logan
Smith, Bertram W. g-So .....	Logan
Smith, Byron J. g-F .....	Logan
Smith, Charles aema-V .....	Sandy
Smith, David ss .....	Logan
Smith, Della g-F .....	Logan
Smith, Delmer E. a-F .....	Beaver
Smith, Douglas L. c-J .....	Heber
Smith, Driver E. c-J .....	Logan
Smith, Elmer C. g-So .....	Logan
Smith, Farrell P. a-F .....	Redmond
Smith, J. Sermon g-V .....	Logan
Smith, Jessie c-V .....	Smithfield
Smith, Jos. F. aema-So .....	Preston, Idaho
Smith, Laura c-V .....	Smithfield
Smith, Mary W. g-Sp-ss .....	Logan
Smith, Moroni W. a-So .....	Parowan
Smith, Norma ho-F .....	Logan
Smith, Olena ss .....	Logan
Smith R. Denton g-F-ss .....	Logan
Smith, Roland B. g-F .....	Clearfield
Smith, Ruby K. ho-Sp .....	Salt Lake City
Smith, Rulon a-F .....	Logan
Smith, S. Cooper a-V .....	Parowan
Smith, Sylvan R. aema-V-Fed .....	Lehi
Sorensen, Evelyn g-J .....	Brigham
Sorensen, Gordon W. aema-V .....	Centerfield
Sorensen, Ivin C. aema-V .....	Ogden
Sorensen, Jens aema-V-Fed-ss .....	Erwin, So. Dak.
Sorensen, Philip H. aema-V-Fed .....	Ogden
Sorensen, Ruby ss .....	Smithfield
South, Jennie ss .....	Logan
Southwick, Edward W. a-V .....	Lehi
Southwick, Pearl ho-F .....	Lehi
Spande, Dorothy F. c-V .....	Logan
Spande, Mabel g-Sp-ss .....	Logan
Spande, Sybil E. g-J-ss .....	Logan
Spencer, Fred c-Sp .....	Logan

Spencer, Geo. A a-F .....	Salt Lake City
Spencer, Sidney K. c-So .....	Salt Lake City
Spenny, Addison L. aema-V-Fed .....	Columbus, Ga.
Stafford, Earl E. a-V-Fed .....	Lamesa, Texas
Staker, Ernest V. aema-So .....	Mt. Pleasant
Standing, Russell J. aema-So .....	Honeyville
Stanger, Albert G. a-So .....	Idaho Falls, Idaho
Stanton, Alonzo G. aema-V-Fed .....	Hyrum
Starr, LeRoy A. c-F .....	Springville
Steed, T. Jos. a-F .....	Clearfield
Stevens, Agnes ho-F .....	Ogden
Stevens, Justus M. a-So .....	Roosevelt
Stevens, Mary g-F .....	Ogden
Stevenson, Sadie B. g-F-ss .....	Logan
Stevenson, Clifford A. aema-J .....	Logan
Stewart, Dean a-Sp .....	Springville
Stewart, Harry G. aema-So-ss .....	Lehi
Stewart, Myrl S. ho-Sp .....	American Fork
Stirland, Byron aema-F .....	Providence
Stobaugh, Frank M. a-V-Fed-ss .....	Silt, Colo.
Stock, Ray C. aema-V .....	Fish Haven, Idaho
Stock Sidney R. g-J .....	Fish Haven, Idaho
Stock, Wesley K. aema-V .....	Fish Haven, Idaho
Stockton, Cassell H. a-V-Fed .....	Villegreen, Colo.
Stone, Calvin Wayne aema-V .....	Aberdeen, Idaho
Stone, Wm. A aema-V-Fed .....	Flagler, Colo.
Stookey, Claudia g-So .....	Salt Lake City
Stookey, Ella M. ho-F .....	Clover
Stout, Alvah Jr. c-F .....	Nephi
Stoven, Henry A. aema-V .....	Salt Lake City
Straw, Reed aema-V .....	Springville
Strickland, John B. aema-V-Fed-ss .....	Albuquerque, New Mexico
Strong, Leroy H. g-So .....	Logan
Strong, W. J. aema-V-Fed .....	Alpine
Struve, L. Christian aema-F .....	Preston, Idaho
Stuart, Wallace aema-V .....	Clarkston
Stubbs, Peter K. a-V-Fed .....	Gunnison
Sumsion, Spafford a-F .....	Chester
Sutherland, Earl C. aema-So .....	Logan
Sutherland, Thos. G. aema-So .....	Logan
Sutton, W. Hugh a-S .....	Paris, Idaho
Swetin, Joseph a-Sp .....	Logan
Tabor, Chas. S. ss .....	Revere Beach, Mass.
Tanner, Arthur E. a-Sp .....	Payson
Tanner, Carlos H. aema-V .....	Douglas, Arizona
Tanner, Nettie g-F .....	Logan
Tanner, Olive ho-V .....	Logan
Tate, C. Delmer c-F .....	Tooele
Tate, T. Theo. a-V .....	Tooele
Taylor, Arthur C. a-Sp .....	Loa
Taylor, Dunn c-F .....	Springville

Taylor, Elton L. a-So .....	Provo
Taylor, Mabel c-V .....	Logan
Taylor, Melvin a-So-Fed-ss .....	Murray
Terry, Mrs. Rebecca J. ho-V .....	Logan
Thacker, Fay E. aema-V .....	Heber
Thain, Geo. Wendell c-J .....	Logan
Thain, Henry c-V .....	Logan
Thatcher, Hanna c-Sp .....	Logan
Thatcher, Lettie ho-Sp .....	Logan
Thatcher, Reginald aema-V .....	Logan
Thayne, Chester a-V-Fed .....	Washington
Thomas, Alta g-F .....	Heber
Thomas Elvin D. a-V-Fed .....	Victor, Idaho
Thomas, Florence ss .....	Logan
Thomas, Walter M. c-V .....	Samaria, Idaho
Thomas, Perry G. c-V-Fed .....	Spanish Fork
Thompson, David W. aema-V-Fed .....	Enterprise
Thompson, Earl g-Sp .....	Logan
Thompson, Ezra C. aema-V-Fed .....	St. George
Thompson, Frederick aema-V-Fed .....	Park City
Thompson, Grant L. c-Sp .....	Scipio
Thompson, Oney L. a-V-Fed .....	Salt Lake City
Thompson, Mrs. Rose J. ho-V .....	St. George
Thomsen, J. Adelbert a-V .....	Freedom, Wyo.
Thomson, Wendell J. g-So .....	Richmond
Thorley, Irene ho-F .....	Cedar City
Thornley, J. Done aema-V .....	Smithfield
Thorpe, Derle aema-V .....	Weston, Idaho
Thorpe, Geo. B. aema-V .....	Brigham
Thorpe, Mabel ho-V .....	Logan
Thorson, Albert aema-V .....	Bear River City
Thorum, Alma A. ss .....	Murray
Tingey, Delmar C. a-J .....	Brigham
Tippetts, Alfred I. g-J .....	Hinckley
Titensor, Roscoe aema-J .....	Logan
Tollestrup A. Virgil aema-F .....	Cedar City
Tolman, Claudius aema-V .....	Honeyville
Tolman, John H ss .....	Springville
Tooth, Bessie g-Sp .....	Manti
Townsend, Frank K. c-V-Fed-ss .....	Colorado Springs, Colo.
Trask, Idella F. g-Sp .....	Logan
Trask, Jas. W. aema-V-Fed-ss .....	Denver, Colo.
Tueller, Adolph C. c-F .....	Paris, Idaho
Tueller, Gottfred J. a-F .....	Paris, Idaho
Tullis, Elizabeth g-F .....	Huntington
Turley, E. Carlyle a-F .....	Colonia Juarez, Chih., Mexico
Vernon, Aldyth g-S-ss .....	Logan
Vernon, Lais g-S-ss .....	Logan
Vickers, Mrs. Pearl c-V .....	Logan
Victor, Viggo F. c-F .....	Brigham
Vitorizs, Frank P. a-V-Fed .....	Idaho Falls, Idaho



Vogelzang, John H. aema-V-Fed-ss	Ogden
Wagstaff, Evangeline ho-F	Mt. Pleasant
Wahlen, John T. g-V	Hyrum
Wahlen, LaReta ss	Hyrum
Walker, Florence ho-J	American Fork
Walker, Vance D. g-Sp-ss	Mendon
Walker, Rufus H. a-V-Fed	Sandy
Wall, Jessie ho-Sp-ss	Colonia Juarez, Chih., Mexico
Wall, John E. a-So	Colonia Juarez, Chih., Mexico
Wallace, Mae ss	Monticello
Walsh, Edith ss	Farmington
Walton, F. Ila ho-V	Monticello
Walton, Reuben H. a-V-Fed-ss	Afton, Wyo.
Wamsley, Lealand F. a-V-Fed	Lander, Wyo.
Wanlass, Eva P. g-Sp	Logan
Ward, Hubert C. aema-Sp	Preston, Idaho
Warner, Charlotte ho-F	Grace, Idaho
Warr, Morell aema-V	Park City
Warrick, Meda ss	Logan
Watkins, Elvin aema-V	Logan
Watkins, Lyle D. a-V	Midview
Watts, Clifford a-F	Murray
Weatherstone, Bertha ss	Ogden
Weaver, Mark L. c-V	Logan
Weaver, Orrin R. aema-V	Bennington, Idaho
Webb, Alta ss	Richmond
Webb, Christopher aema-V	Downey, Idaho
Webster, May ss	Preston, Idaho
Weeks, Thos. M. aema-V	Irwin, Idaho
Welch, Harry L. a-Sp	Paradise
West, Alva K. c-Sp	Hood River, Oregon
West, Lawrence M. c-F	Ogden
Westcott, Warren K. a-So	Salt Lake City
Wheeler, Jesse K. a-J	Murray
Whetten, Henry A. a-F	Colonia Juarez, Chih., Mex.
White, A Earl ss	Salt Lake City
White, Hobart G. a-Sp	Beaver
White, Richard C. a-V-Fed	Ogden
White, Rulon c-Sp	Willard
Whitesides, Fern g-So	Layton
Whitmore, Jas. M. a-So	Midvale
Whitmore, Ora ho-F	Midvale
Whitney, Byron M. aema-V-ss	Logan
Whitney, Robert B. aema-V	Logan
Whittaker, Ada ho-F	Circleville
Whittaker, Louise ho-F	Circleville
Whitworth, Elizabeth ho-Sp	Logan
Whitworth, Marie L. c-F	Logan
Wilhelm, Larene c-V	North Logan
Wilkes, Oliver c-Sp	Bedford, Wyo.
Willesen, Wm. H. aema-V-Fed-ss	Clearbrook, Minn.

Williams, Agnes ho-So .....	Logan
Williams, Claire ho-F .....	Logan
Williams, Erda ho-So .....	Murray
Williams, Geo. T. a-V-Fed-ss .....	Kamas
Williams, Grace V. ho-F .....	Murray
Williams, John V. g-F .....	Malad, Idaho
Williams, Ray B. ss .....	Salt Lake City
Williams, S. Verlin c-V .....	Samaria, Idaho
Williams, Walter T. c-V .....	Samaria, Idaho
Willie, Vernal a-J .....	Mendon
Willmore, Emma B. c-V .....	Logan
Willmore, Madison aema-V .....	Logan
Willmore, Rebecca g-V .....	Logan
Wilson, Leslie H. aema-V-Fed .....	Payson
Wilson, Marion L. g-V .....	Salt Lake City
Wilson, Milton T. aema-So .....	River Heights
Wilson, Wm. W. a-V .....	Logan
Winberg, J. Conrad aema-V .....	Millville
Winkler, Aurel P. a-F .....	Mt. Pleasant
Winn, Carl D. aema-So-Fed-ss .....	Lehi
Wintch, Ardray M. aema-V-Fed .....	Manti
Wood, Cassie H. ss .....	Logan
Wood, Catherine g-F .....	Logan
Wood, Delores ho-F .....	Woods Cross
Wood, W. Edwins g-F .....	Logan
Woodbury, Clare ss .....	Salt Lake City
Woodbury, Eugene g-So .....	Cedar City
Woodland, Richard E. a-V .....	Willard
Woodruff, Oliver C. a-F .....	Smithfield
Woodside, Howard M. c-F .....	Logan
Woodward, Ernest B. aema-F .....	Wellsville
Woolley, S. Ray c-F .....	Grantsville
Worley, J. Clyde g-Sp .....	Logan
Worley, K. Blanche ho-So-ss .....	Logan
Wrathall, Janice ho-So .....	Grantsville
Wrathall, Penina ho-J .....	Grantsville
Wray, Chas. C. c-V-Fed-ss .....	Salt Lake City
Wright, C. Coulsen R. aema-S .....	Logan
Wright, H. Pratt a-F .....	Hinckley
Wrisley, Gerald M. ss .....	Logan
Wyatt, Elizabeth g-S .....	Wellsville
Yao, Hsing H. a-G .....	Shanghai, China
Young, C. Edward aema-Sp .....	Provo
Young, Constance g-V .....	Idaho Falls, Idaho
Young, John C. aema-V .....	Logan
Young, Lena ho-Sp .....	Idaho Falls, Idaho
Young, Vernon a-F-Fed-ss .....	Monticello
Zezulak, John a-V-Fed .....	Omaha, Neb.
Zobell, Deloss a-F .....	Salt Lake City

# JUNIOR EXTENSION SHORT COURSE, LOGAN, UTAH

Allred, Jennie .....	Mt. Pleasant
Bayles, D. L. ....	Blanding
Betts, Lucile .....	Payson
Bonacci, John .....	Helper
Boyle, Keith .....	Provo
Bradshaw, Thelma .....	Wellsville
Brandt, Vendella .....	Salina
Brown, Ruth .....	Ogden
Brown, Webb .....	American Fork
Buchanan, Golden .....	American Fork
Collett, Byron .....	Vernal
Cornaby, Allen .....	Spanish Fork
Cowley, Naomi .....	Venice
Devy, Walter .....	American Fork
Duke, Harold .....	Heber City
Eliason, Gladys .....	Grantsville
England, Ellis .....	Tooele
Fausett, Iva .....	Price
Francis, Wendell .....	Lakeshore
Garman, Theo .....	LaSal
Gee, Teddy .....	Salina
Goates, Reva .....	Lehi
Greene, Gladys .....	Ogden
Gurney, Frederick .....	Lehi
Hadley, Nina .....	Ogden
Hanks, Lynn .....	Salem
Hansen, Ernest .....	Goshen
Harmon, Chauncey .....	Manti
Holt, Portia .....	Layton
Hone, Ida .....	Pleasant Grove
Humphreys, Owen G. ....	Pleasant Grove
Johnson, Blanche .....	Pleasant Grove
Jones, Zelpha .....	Tooele
Kenner, Cecil .....	Manti
Larsen, Frank .....	Spanish Fork
Larsen, Gordon .....	Sandy
Lemaster, Vernon .....	LaSal
Lemon, Melvin .....	Hyrum
McDowell, Emma .....	Payson
Markham, Ira .....	Spanish Fork
Mendenhall, Cornell .....	Springville
Meyer, Stella .....	Monroe
Miller, Nina .....	Manti
Murdock, Nettie .....	Heber
Nalder, Minnie .....	Layson
Nielsen, Wm. ....	Springville
Oleson, Orlin .....	Hooper
Ostler, Roy .....	Nephi

Pace, Alvin .....	Coalville
Parker, Byron .....	Payson
Parker, Ethel .....	American Fork
Parkes, Flora .....	Nephi
Porter, Roxie .....	Blanding
Powell, Marguerite .....	Salt Lake City
Price, Scott .....	Provo
Rasmussen, Irvin .....	Mt. Pleasant
Reynolds, Bess .....	Springville
Richardson, Stanley .....	Sandy
Roylance, Mary .....	Springville
Smith, Lola .....	Vernal
Stacy, John .....	Bountiful
Thorne, Fern .....	Pleasant Grove
Thurgood, Lee .....	Morgan
Visick, Hubert .....	Morgan
Vowles, Dallas .....	Tooele
Wadley, LaVere .....	Pleasant Grove
Warenski, LaVerne .....	Salt Lake City
Wheatley, Othello .....	Brigham
Wicker, Zelma .....	Bountiful
Wilcox, Augusta .....	Sandy
Willowby, Edith .....	Coalville
Winget, Frank .....	Monroe
Woodyatt, Ada .....	Willard
Young, Zelma .....	Mona

## SUMMARY OF ATTENDANCE 1920-21

	Agriculture Men	A. E. M. A. Men	Commerce Men	Commerce Women	General Science Men	General Science Women	Home Economics Women	TOTAL	GRAND TOTAL
<b>COLLEGE</b>									
Graduates ..	8	3	2	...	3	5	2	23	
Seniors .....	23	7	5		3	8	15	61	
Juniors .....	12	5	9	1	10	5	11	53	
Sophomores ..	43	28	20	4	17	13	33	158	
Freshmen ....	68	35	48	6	33	27	56	273	
Specials .....	20	17	13	3	13	14	22	102	
	174	95	97	14	79	72	139		670
Vocational .....	141	230	48	34	10	9	32		504
Total .....	315	325	145	48	89	81	171		1174

Summer School 1920—Men .....	159	
Women .....	188	347
Correspondence Department & Extension Classes—Men	358	
Women .....	284	642
		2163
Less Names Repeated .....		169
Net Total .....		1994

### FARMERS' CONVENTIONS AND HOUSEKEEPERS' CONFERENCES

Logan—Men .....	127	
Women .....	155	
Cedar City—Men .....	88	
Women .....	147	517
Junior Extension Short Course—Logan—Boys .....	39	
Girls .....	35	74
Net Total .....		591



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